REFLECTIONS ON THE PANDEMIC

in the Future of the World



TÜBA
Türkiye Bilimler Akademisi
Turkish Academy of Sciences

Editors
Prof. Muzaffer Şeker
Prof. Ali Özer
Dr. Cem Korkut



TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES

Reflections on the Pandemic

in the Future of the World

Editors

Prof. Muzaffer Şeker
Prof. Ali Özer
Dr. Cem Korkut

 #mask

 #keepdstance

 #hygene

Ankara, 2020

Reflections on the Pandemic in the Future of the World
© Turkish Academy of Sciences Publications

ISBN: 978-605-2249-53-6

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher, except in the case of brief quotations and certain other noncommercial uses permitted by copyright law.

The scientific responsibility for the language, scientific, ethical and legal aspects of all the articles included in the book belongs to the authors. Turkish Academy of Sciences and editors have no responsibility.

Turkish Academy of Sciences
Piyade Sokak No: 27, 06690
Çankaya – Ankara TÜRKİYE
Tel: +90 312 442 29 03
www.tuba.gov.tr

Editors
Prof. Muzaffer Şeker
Prof. Ali Özer
Dr. Cem Korkut

Redaction
Dr. Cem Korkut
TA Mürsel Doğrul

Graphical Design
Ece Yavuz

First Edition
1000 copies

Publication Place and Date
Berk Grup Matbaacılık, Ankara
September 2020

Contents

Primum non nocere!
Muzaffer Şeker
9

Pandemics Throughout History and Their Effects on Society Life
Orhan Kılıç
13

Outbreak Control and Preparatory Actions in the New Normal Period
Reccep Öztürk
55

Health Services and Transformation of Health Services in the Post-pandemic Period
Ali Özer, Fevziye Çetinkaya
75

The Effectiveness of the World Health Organization in Pandemics and the Future of the Post-Pandemic Era
Turan Buzgan, Öner Güner
95

The Transformation of Health Education in A Pandemic Era
Zeliha Koçak Tufan
115

The Current/Potential Legal Issues in Contract Law and Health Law due to the COVID-19 Pandemic
Pervin Somer
139

COVID-19 Pandemic and Education
Mahmut Özer, H. Eren Suna
157

Opportunities and Risks in Higher Education in the Postpandemic Period
Çağrı Erhan, Şenay Gümüş
179

R&D and Innovation Approaches in the Postpandemic Period
Hasan Mandal
195

The Effects of COVID-19 Pandemic on Academic Researches and Publications
Haydar Yalçın, Muzaffer Şeker
217

The Future of States in the Context of Administrative Capacity:
Democracy After COVID-19 Pandemic
Haluk Alkan
241

Post-Corona World:
The Effects of COVID-19 on Economic, Social and Academic Life
Mustafa Acar
267

International Relations Theory and World Order After COVID-19
Gülnur Aybet
289

Comparative Politics of the Coronavirus Pandemic
Şener Aktürk
309

Global Security and Cooperation in the Postpandemic Period:
From the 19th Century Concert of Europe to the 21st Century Concert of Globe
Deniz Ülke Arıboğan
325

Global Governance in the Postpandemic Period:
The World Health Organization and the Future of International Organizations
Birol Akgün, Metin Çelik
351

Global Governance and Crisis Management in the Post COVID-19 World
Talha Köse
369

Post-COVID-19 Period and New Institutional Politics in Turkey
Abdurrahman Babacan
393

The Political-Economic Transformation in the Post-Pandemic Era
H. Tarık Oğuzlu
425

The Future of the Sectors and the Change of the Firms in the Post-pandemic Period
Halit Keskin
441

Effects of COVID-19 Crisis on Employment and Working Arrangements
Ahmet Cevat Acar
463

Transformation in Consumption and Spending Practices
in the Post-pandemic Period
Bayram Zafer Erdoğan
489

Conceptualization of Uncertainty and Trust
after the COVID-19 Outbreak Affecting the World
Ahmet Faruk Aysan
515

A New Concept of Economics and Finance in the New Normal Period
Mehmet Bulut
537

The Economic and Financial Opportunities
for Turkey in the Post-pandemic Period
Cem Korkut
555

The Future of the Tourism Sector after the Great Lockdown
Günay Özcan, Muhsin Kar
581

The Collapse in Tourism during the Pandemic:
Expectations and Opportunities for the Health Tourism
Muzaffer Şeker, Mustafa Solak
597

The Effects of COVID-19 Outbreak on Supply Chains and Logistics Activities
Gül Senir, Arzum Büyükkeklik
623

The Future of Cryptocurrency After the Pandemic
Mürsel Doğrul, Cem Korkut
641

Sociological Remaining of Outbreak and
Globalization between Evocation and Oblivion
Yasin Aktay
655

Rethinking the Welfare State:
Social Policies during the COVID-19 Pandemic and in the Post-pandemic Period
Mehmet Fatih Aysan
679

Human Relations in the Post-pandemic Period
-New Truths in the New Normal-
Nevzat Tarhan
699

A Prosthesis Addition to Our Psychology and New Normal
Erol Göka
727

Technology and Human Condition after COVID-19
Mehmet Emin Babacan
751

Attitudes to the Global Pandemic from the Standpoint of Moral Philosophy
Bilal Kuşpınar
769

Morality:
Awareness of Being Human and Remaining Human in the Post-pandemic Period
Hüseyin Sarıoğlu
791

Sociology of the Pandemic
and the Paradigm Transformation in the New Normal Period
Vehbi Bayhan
813

Environmental and Ecosystem Services in the Post-Pandemic Period
İzzet Öztürk, İsmail Koyuncu
837

Developments in Information Technologies
and Artificial Intelligence in the Post-pandemic Period
Erdal Arıkan
861

Food Safety and Food Resources in the Post-COVID-19 World
Kazım Şahin, Ali Adnan Hayaloğlu
875

National and International Agricultural Policy
in the Post-pandemic Period
Fahri Yavuz
895

The Importance and Social Impacts of Space Studies in the Context of International
Relations in the Post-pandemic Period
Lokman Kuzu
927

Pandemics, Outcomes of Polar Research and the Future
Burcu Özsoy
943

Media, Sports and Entertainment Industry in the Post-pandemic Period
Yasin Bulduklu, M. Murat Yeşil
959

The people think of wealth and power as the greatest fate,
But in this world a spell of health is the best state.

-Muhibbi[*]

We are grateful to our esteemed scientists who contributed to the book by making extraordinary efforts despite their busy schedules.

Editors

[*] Suleiman the Magnificent -the Lawgiver (1494 - 1566)

Primum non nocere![1]

The coronavirus pandemic will forever alter the world order.
-Henry A. Kissinger

Human beings have come to today by using the resources provided to them carelessly and damaging to other beings, especially humans, in the world they live in since ancient times. The negative impact of each damaged other beings on the habitat could not be compensated. The process has resulted in the deterioration of the ecological balance, considering the place and contribution of other beings in nature. It is not possible for environmental studies to normalize ecosystem damage in short time because of countries' conflict of interest for many years. The deterioration of the ecological balance has led to a decrease in biodiversity and the unbalanced distribution of resources in the world, as well as excessive consumption. As a result, supply/demand balance has been disrupted in terms of covering the basic needs of the individual, which is the main indicator of human welfare. Disengagement from natural life as a result of industrialization and urbanization has narrowed the production areas. This situation has revealed different production and stocking methods and production techniques that threaten the health of human and other creatures as a result of commercial concerns.

In cases where unemployment increases, healthy nutrition is eliminated and the immune system is weakened, a medium suitable for the spread of serious epidemic diseases that cause the world population to decrease in times of economic crises. There have been developments in many areas following the outbreaks in the world. The recent increase in high-tech products, excessive mobilization due to globalization and the ease of transportation and communication have created a disadvantage in terms of the spread of diseases as well as benefits. The recent increase in high-tech products, excessive mobilization due to globalization and the ease of transportation and communication have created a disadvantage in terms of the spread of diseases as well as benefits. In addition, intercontinental forced migrations, border disputes as well as internal conflicts have increased the risks of societies affecting from crisis and natural disasters.

[1] "First, do no harm! - Hippocrates

The most important difference of the COVID-19 pandemic from past pandemics is the multiplier effect of the speed of transportation and communication in the spread of the pandemic and the implementation of the measures taken. The reflections of the social change created by the global outbreak should be read well when a healthy analysis of past pandemic periods is made, and their differences and impact areas are evaluated. Determining post-pandemic period strategies based on historical evaluation will make it possible to perform the normalization process in a healthier way.

It is expected that the forced quarantine processes that societies go through with the pandemic and the struggle processes in the field of health will have long-term economic, psychological, political, sociological and commercial effects on the normalization process in the post-pandemic period. As a result of the traumatic effects of this period, individuals have had the opportunity to question their attitude to life and their past. Individuals will experience differentiations in family and human relationships, consumption habits and spending practices, expectations from life and career planning in the post-pandemic period.

The countries will need to revise their production and consumption policies, develop strategies to reduce foreign dependency, encourage domestic production and take special measures to use their natural resources efficiently in the new era. Works and measures on this issue will affect, especially the field of health, the agriculture and livestock-based food sector, the employment policies of the country, and potential alternatives learning methods in education. A balanced spread of social welfare and demands for an inclusive social security system, including unemployment insurance, will have an important place on the agenda of politicians. The concept of food safety and sustainable food production, which has an important place in the natural flow of life and is not very aware, has affected the logistics support policies and quarantine decisions during the pandemic. The processing, stocking and balanced consumption of foods, seasonal food production diversity, food economy, consumption management and production balance, healthy and balanced food consumption, national agriculture and animal husbandry policies that cares about domestic and sufficient production which provide independency to external sources will be among the priority issues of all countries in the new era. Similarly, the protection of natural resources, the evaluation of alternative renewable energy resources, the provision of inclusive and qualified health care, health infrastructure and health workforce, fair and equitable social security policies, economic and political-based pacts, cooperation in international relations, reshaping the concepts of the ally/enemy and special strategies for social security in times of crisis will be on the agenda of political decision makers and administrators in the post-pandemic period.

As required in science diplomacy, the responsibility of science academies is to guide decision-makers by producing studies that include reports, predictions, projections and big data analysis. One of the first reports in Turkey on the

pandemic was the "TÜBA Assessment Report on COVID-19 Global Outbreak". The report was periodically updated and shared on the internet, and in its 6th version was published in Turkish and English and distributed to the relevant institutions and organizations.[2] Likewise, the report titled as "TÜBA COVID–19 Global Outbreak Report on Judicial Changes and Interactions" which includes suggestions for the determination of legal problems that may arise or may arise in the national or international arena due to the global outbreak, and potential solutions, was published in Turkish and English and shared with the relevant parties.[3] The historical evaluation on pandemics, the effects of the COVID-19 global outbreak, the sectoral-based interactions of the individual and society after the pandemic are examined under different titles with a future perspective in this book, penned by Turkish scientists and published by Turkish Academy of Sciences (TÜBA). This book is a kind of updated version of the comprehensive book previously published under the title "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği".[4] Different articles have been added to this book and also some previous articles have been revised with updated data and developments. There are a lot of subjects and predictions for post-pandemic period in the different fields, from health to education, from information technologies to political science, from economics to international relations, from trade to philosophy, from artificial intelligence studies to sociological analysis, from environment and agriculture to space and polar studies.

Certainly, the spread and interaction of the pandemic is still not very clear in the light of the developments, and it creates a picture of anxiety in individuals in the form of a blurry ball of expectations that includes serious concerns for the future. This picture is not a long-term sustainable social situation. All segments of the society, especially healthcare workers, are at risk of burnout syndrome. Accordingly, commercial, sectoral (private and public), political, international, and local breakdowns may cause global peace threatening consequences. The pandemic has been a reminder by showing the importance and vital necessity of the "One Health" concept.

It will not be possible to make an exact analysis of the pandemic in a specific field because the results are multi-dimensional and multilateral, by confining them to a single discipline. In this context, although more than one point is touched in each chapter, the content of the book is built on five basic chapters without separating them with precise lines in the book. In the first part, the role of epidemics and pandemics in history is mentioned, while predictions are made about the transformations expected to occur within the framework of health systems, education, R&D studies, judicial changes, and academic

[2] TÜBA Assessment Report on COVID-19 Global Outbreak can be reached on http://www.tuba.gov.tr/tr/yayinlar/suresiz-yayinlar/raporlar/tuba-assessment-report-on-covid-19-global-outbreak in English and http://www.tuba.gov.tr/tr/yayinlar/suresiz-yayinlar/raporlar/6.versiyon-tuba-covid-19-kuresel-salgin-degerlendirme-raporu in Turkish.

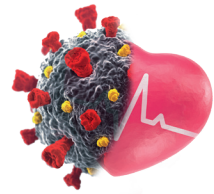
[3] TÜBA COVID–19 Global Outbreak Report on Judicial Changes and Interactions can be reached on http://www.tuba.gov.tr/tr/yayinlar/suresiz-yayinlar/raporlar/tuba-covid19-global-outbreak-report-on-judicial-changes-and-interactions in English and http://www.tuba.gov.tr/tr/yayinlar/suresiz-yayinlar/raporlar/tuba-covid-19-kuresel-salgini-hukuki-degisim-ve-etkilesimler-raporu in Turkish.

[4] The book "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" can be reached on http://www.tuba.gov.tr/tr/yayinlar/suresiz-yayinlar/bilim-ve-dusun/kuresel-salginin-anatomisi-insan-ve-toplumun-gelecegi

research & publications. The world international politics is discussed in the context of states and developments in the global system in the second part. The changes in the fields of economics, trade, tourism, logistics, employment patterns, and analysis of business transformation are included in the third part. In the fourth part, the philosophical, psychological, sociological and religious dimensions of the new normal period after the global outbreak are mentioned and theo-political evaluations are made. In the fifth and last part, the future of the media, sports and entertainment sector was discussed while drawing attention to the developments in various science disciplines such as environment, information technologies, food security, agriculture, energy, space studies, polar studies during and after the global outbreak.

It should not be forgotten that the information technologies, artificial intelligence studies, a sustainable economic ecosystem, a qualified education and investments for the future of health will shape the future of societies in the new era. As a result, individuals and societies have to get used to this process and set up their precautions and future plans against these and similar epidemics and pandemics. In addition, struggling with such chaotic processes in life will develop human and make them resistant as a result of the lessons they have learned. We would like to state that it is valuable and important to reconstruct life on a healthy ground based on human values, moral issues, and social security accompanied by scientific studies, with the awareness of self-criticism and review of responsibilities to the global matters.

Prof. Muzaffer Şeker
Turkish Academy of Sciences
President



Pandemics Throughout History and Their Effects on Society Life

Orhan Kılıç

Prof. Orhan Kılıç

Prof. Orhan Kılıç completed his PhD at Fırat University. He received the title of Assistant Professor in 1994, Associate Professor in 1998 and Professor in 2004. Ottoman administrative history, provincial organization, the history of the Ottoman period around Lake Van and natural disasters (earthquakes, epidemics, famines) are the main research areas. He has 6 published books, 38 Book Chapters/ Encyclopedia Articles and over 60 articles and published papers. Many citations have been made to his works by scientists of the field. He is still a faculty member at Fırat University, Faculty of Humanities and Social Sciences, Department of History, Chair of New Age, and has been serving as the Head of the New Age Chair since 1994.

Pandemics Throughout History and Their Effects on Society Life[1]

Orhan Kılıç
Fırat University
okilic60@gmail.com

Abstract
One of the important factors to be considered in the explanation and interpretation of history is pandemic diseases. The nature of the pandemic diseases, ways of prevention and treatments are not fully known for a long time. People saw the disease as a wrath of God until they learned the nature of the epidemic, and often placed a blessing on it. Many diseases with an endemic, epidemic and pandemic character have been experienced since ancient times and millions of people have died in these outbreaks. Plague, malaria, cholera, yellow fever, smallpox, influenza, tuberculosis, typhoid, typhus and syphilis are important epidemic diseases that cause mass death. However, all of these could not produce outbreaks while would affect several continents of the world. We can only say that plague, cholera and influenza diseases are pandemic epidemics and that affect people globally known. The world has experienced from antiquity to the present, more than ten influenza pandemics with three plagues, seven cholera, and the outbreak we are experiencing today. Epidemic outbreaks of smallpox, malaria and yellow fever which caused the death of many people, were at least as effective as these three diseases.

The reason for the high destruction of all pandemics is that the disease is not fully recognized. Therefore, the mortality rates were high, and the spreading areas were wide. Epidemics/pandemics deeply affected social life economically, socially, psychologically, culturally, politically, religiously, geographically and many more.

Keywords
pandemic, plague, cholera, influenza/flu, pandemics in history, pandemic and society

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

One of the important factors to be considered in the explanation and interpretation of history is epidemic diseases. The nature of the epidemic diseases, ways of prevention and treatments are not fully known for a long time. People saw the disease as a wrath of God until they learned the nature of the epidemic, and often placed a blessing on it. Many epidemic diseases with an endemic, epidemic and pandemic character have been experienced since ancient times and millions of people have died in these outbreaks. Plague, malaria, cholera, yellow fever, smallpox, influenza, tuberculosis, typhoid, typhus, and syphilis are important epidemic diseases that cause mass death. However, all of these could not produce outbreaks while would affect several continents of the world. We can only say that plague, cholera, and influenza diseases are pandemic epidemics and that affect people globally known. The world has experienced from antiquity to the present, more than ten influenza pandemics with three plagues, seven cholera, and the outbreak we are experiencing today. Epidemic outbreaks of smallpox, malaria and yellow fever which caused the death of many people, were at least as effective as these three diseases.

The reason for the high destruction of all pandemics is that the disease is not fully recognized. Therefore, the mortality rates were high, and the spreading areas were wide. Pandemics has deeply affected social life economically, socially, psychologically, culturally, politically, religiously, geographically and many more aspects.

As epidemics are a biological phenomenon, they are as old as human history and microorganisms causing diseases are older than human history. Microorganisms such as bacteria, viruses, fungi, algae, and protozoon affect human life in a beneficial and harmful way depending on the environment and natural conditions. Microorganisms, which are the source of epidemic diseases that cause mass death of people, have not been recognized for a very long

time because they are too small to be seen. The existence of microorganisms is accepted only in theory, suggesting that air pollution may be the cause of diseases. Often, a holy characteristic could be attributed to diseases and they are perceived as a punishment from God.

Hippocrates (460-380 / 375 BC), the famous physician of antiquity, revealed the understanding of medicine based on reason and experience, in contrast to the traditional religious-magic (magical) measures practiced in previous periods. According to him, medicine was a divine art, and physicians benefited from the gods and took advantage of the power of nature. Many scientists from the Islamic world have guided the clinical observer side of Hippocrates. Many of his Hippocratic works have been translated into Arabic with Galen (Câlînûs) annotations (Kahya, 1998: 120). Hippocrates linked all kinds of diseases, whether contagious or not, to the imbalance of the four fluids (humor) in the body (humoral theory). These fluids were bile, black bile, sputum, and blood. The Islamic world has named them *Ahlat-ı Erbaa* (four trees). According to the theory, if these four fluids are balanced in the human body, a healthy body will be obtained, and if these fluids are unstable, the disease will occur. The most important factors of whether these fluids are balanced in the body are the winds and water. This theory, called Miasma (Miyazma) theory, pointed to physical and moral pollution, but also brought the relationship between epidemic disease and environment. For this reason, sick people were sent to different places far from water and wind, which disrupted their order. While this theory was essentially wrong, it could sometimes work randomly. Because avoiding swamps and static waters could be a preventive and protective measure for malaria. Exiting a crowded city and living in a coastal town where beautiful breezes were blowing, it was good for some diseases (Bauer, 2006: 19).

While investigating the causes of plague epidemics that occur one after another in the medieval world, theses based on the theories of Hippocrates have been proposed. Ibn Sinâ (980 / 981-1037) reconsidered, completed and disseminated the theories that Hippocrates and Galen had prepared in the ancient Roman world (Panzac, 1997: 154). He defined Ahlat-ı Erbaa as blood, bile, sputum, and love. Ibn Sina, stating that the plague spread from carrier mice with mouse mice, wrote that the plague epidemic started in this way (Erdemir, 2018: 204). Ibn Khaldun (1332-1406) pointed out that the deterioration of the air causes epidemic diseases thus applying a close view to that of Ibn Sina (İbni Haldun, 1954: 128).

The countries most affected by the Black Death plague pandemic in 1346-1352 were in Western Europe and the Western Mediterranean. Muslim scientists in Andalusia produced some works with the effect of this devastating epidemic. Max Meyerhof, who translated the Arabic work of Ibn al-Hatib (1313-1374) into German, stated that these booklets about the plague were much more advanced than those written in Europe in the 14-16th centuries. In his work *Muknî'ât es-Sâ'il 'an el-Marad el-Hâ'il,* Ibn al-Hatib concluded that those who come into contact with the people who are infected will surely catch the plague and die (Sezgin, 2015: 57).

Eşref bin Muhammed, one of the 15th century Turkish scholars, also adopted the views of Ibn Sinâ and attributed the cause of the epidemic to the poisonous air (Eşref bin Muhammed, 1961: 34).

In the 19th century western world, theses close to the views of Ibn Khaldun began to be proposed about how epidemics emerged and spread. Many diseases, such as smallpox, caused people to die, but there was no clear idea of how they spread. Many people believed that epidemic diseases were caused by invisible dirty air, called myiasis. For this reason, members of the middle class were protesting about overcrowded slum areas and wanted to be protected from dirty myiasis clouds in this way (Fara, 2012: 350). Louis Pasteur's works in the 19th century proved the theory of microbes and it was understood that infectious diseases were spread by viruses, which were invisibly small.

There are many factors that cause the emergence of epidemics. Failure to comply with the rules of hygiene, unhealthy environments caused by the lifestyles of people after passing to settled life, deterioration of ecological balance, famines, natural disasters and weakening of people's immune systems for any reason are the first reasons that come to mind.

Communities engaged in hunting and gathering before farming were less likely to develop any epidemic disease because viruses or bacteria with diseases needed a large population of people to survive and reproduce. Hunter and gatherer groups were certainly not suitable for this. These groups were affected by worms, parasites or infections passed on from the animals they hunted and caught an infectious tropical disease and malaria, called *yaws (frambesia)*, causing wounds on the skin. However, it was difficult for the diseases to become deeply rooted as they were constantly displaced and lived in small groups. The transition to settled life brought many factors that facilitate the emergence of diseases. Houses, food hiding, and accumulated garbage led to the emergence of insects that live close to man. The role of fleas, mosquitoes, and mice in pests in this pest is undeniable. When human waste accumulated in a tremendous way, it increased water pollution and all these developments caused the spread of diseases. The water around the open fields and the houses created suitable environments for mosquitoes and malaria appeared. Water channels were suitable breeding sites for snails carrying bacterial disease in Egypt in 1200s and they finally reached in Mesopotamia. People started to live closer to animals and even stayed in the same place in the countryside in winter. As a result, animal-specific diseases mutated and became a deadly threat to humans. Almost all the epidemic or non-epidemic diseases that people are exposed to are of animal origin. Measles disease is related to the *rinderpest* (cattle plague) in cattle and possibly the *distemper* in dogs. Smallpox originates from cows or other animals that carry relative flower viruses. The source of diphtheria is cows, and the origin of the flu is pigs, ducks, and chickens. The source of tuberculosis is cattle. Regular cold is a disease that passes from horses. The source of typhus is essentially mouse fleas and then squirrels (Diamond, 2013: 266-269; Pointing, 2011: 57; Porter, 2016: 20).

Epidemic diseases are classified according to their spreading areas and the number of people they affect. Diseases that catch the animals of a single place or business continuously or from time to time are called *narrow epidemics*. The spread of the disease from the place of occurrence and its emergence in another place is called *andemia / endemia*. If the disease is seen more than usual in a certain region or several countries, it is called epidemic, and in case of continental or global spread, it is called *pandemia / pandemic* (Dols M., 1979b: 181).

Pandemic Diseases in History: Terminology and Scope

The most problematic aspect of epidemic diseases in history is the systematics and names of epidemic diseases. The disease called *henkan* in Hittites was considered as a general name of epidemic diseases since its symptoms were unknown (Dinçol, 1985: 10). It is also suggested that *henkan* was used to refer to plague, typhoid, or cholera disease (Koç, 2006: 52). It is understood that the Islamic world was at a more advanced level than the western society about the systematic of diseases. Bars (white leprosy), leprosy, cudri (smallpox), hasaba (measles) (Altun, 1996: 140-141) and hamra (a kind of plague) diseases were known in the city of Mecca in the 7-8th centuries (Hijri first century) (İbn Mace, 2224-2225).

Although these diseases were known in the Islamic world, all the epidemic diseases that caused the death of people in a short time were called as *ta'un* or *waba* (plague/Black Death) in the Islamic and Christian world. This was also the case in the context of the Ottoman society. Especially, the plague and malaria diseases were mixed many times. In one of her letters, written in 1717, Lady Montaqu stated that mostly mentioned plague in the Ottoman society was fever (malaria) (Montaqu, 2004: 56). This situation became so complex that sometimes the terms plague and fever were used together. For example, Nâimâ Mustafa Efendi used the term *hummâ-yı vebâ'iyye* for a disease that could become fatal in a short time somewhere in his work (Nâimâ Mustafa Efendi, 2007: 1693).

Theoretically, ta'un (plague) specifically means bubonic plague. *Wâbâ*/ (veba/ plague) was generally used for all epidemic diseases. Both words come from Arabic. It is even noted that some historians who write in Arabic say "every ta'un is a wâbâ, but every wâbâ is not a ta'un". Although Ottoman sources consider this distinction theoretically, we can say that they use both words synonymously in practice (Varlık, 2017: 30).

The epidemics that affect people most throughout the history are specifically plague, smallpox, yellow fever, typhoid fever, malaria, syphilis, cholera, tuberculosis, typhus, measles, and flu. Some of these diseases have not been able to spread globally. Because the environments that are necessary for their transmission, spread and reproduction of microorganisms causing diseases are different. Stagnant water from which mosquitoes, which are carriers of the malaria microbe, will reproduce and a suitable climate was required. The situation is different for the syphilis microbe. Because for syphilis to pass from person to

person, there must be skin contact or sexual intercourse. Although infectious diseases such as malaria, smallpox, syphilis, leprosy, tuberculosis, typhoid, and typhus caused the death of many people, they did not show a pandemic feature. Global epidemics in history are plague, cholera, and flu.

This study aims to provide a concise evaluation on the course of pandemics, their effects on human and social life as well as analyzing their consequences. In this regard, the biological and medical causes, precautions, and treatment methods of epidemic harvests are not addressed in order not to move away from the main subject.

Waba/Plague

Plague has a special place in epidemics encountered throughout history. From ancient times until the end of the 19th century, endemic, epidemic and pandemic often showed their toll and caused the death of a large number of people. Plague is called *waba* and *ta'un* in the Islamic world while it is usually referred to as *Black Death*, or *Black Plague* in the Western world. In addition, in different languages it is also called *plague*, *peste*, *pestis*, *pastilentia*. It originates from a bacterial infection called *Yersinia pestis*. Those who got the disease before their treatment were lost in a short time. There are two different types of Plague. These are bubonic (bubun / bubonik) and lung plague (pneumonic plague). While the mortality rate in bubonic plague is 50-70%, this rate is over 90% in the lung plague. It is claimed that plague bacteria are destroyed and lose their effectiveness at temperatures of 38 degrees (100 degrees Fahrenheit) or less (Payne, 1889: 4).

There is a widespread belief that many epidemic diseases that emerged since ancient times originated in Egypt. The vulnerable position of Egypt at the intersection of pilgrimage and trade routes has made it the focus of a plague or epidemic spread. In regard to the plague, Egypt was not merely an endemic focal point. However, it was in a sensitive position because it had favorable conditions for the outbreak (Ali ibn Ridwan, 1984: 53).

Our first written information about the Plague goes back 4000 years ago. In the Gilgamesh Epic, which was presumably written on the tablets by the Sumerians in the BC-2000s, there were expressions that "... it would have been better if the Plague God would have gotten up and infested people, rather than what you did!" (Gilgameş Destanı, 2001: 86-87). The Hittites had a god for plague named Şulinkatte as well as famous prayers to be protected from plague. The death of 2nd Suppiluliuma, considered as the biggest king of the Hittites, in BC 1335, due to this disease and the death of his eldest son, 2nd Arnuvanda, who died a few years later after taking the throne, shows that plague disease was widespread in this period. Indeed, his second son, 2nd Murşiliş, who replaced 2nd Arnuvanda, thought that the gods who were angry at his father had punished him and his brother because of his father killing his third niece Tuthaliya to take the throne and he wrote his famous plague prayers consisting of 4 different tablets (Alparslan, 2006: 127-129). In Tekvin/Genesis (12), known as the

first book of the Torah, it is claimed that Pharaoh's possession of Abram's wife, Saray, caused a divine curse. Pharaoh and all the people in the palace suffered from a disease called *neh-ga*. Since this disease caused cheesy flowing wounds, it was suggested that this was kindly called plague in translations (Bauer, 2013: 155). It is also mentioned in the verses about some past tribes that the plague is a frightening and lethal disease in the Qur'an (Kur'an-ı Kerîm: Bakara/243). This verse was interpreted by referring to the plague, and sometimes the consequences of the plague's deaths of 70 thousand people from the Israelites of the plague are mentioned (Taberî, 1991: 626-627).

The first expressions found in historical sources about epidemics are on the epidemic during the *Peleponnes Wars*, which took place between the Spartans and the Athenians in BC 430. The disease probably came from Egypt with fleas carried by overcrowded ships and mice (Diakov, 2014: 372). It spread rapidly among the people in Athens and for two years (430-429 BC), it took its toll rigorously for two years and even Pericles, one of the most important statesmen, died. Two years later, the disease came back and 1/3 of the people of Attica died between BC 427-426 (Mansel, 1995: 321; Tekin, 1998: 82, 84). There are also discussions about whether this disease, which is mentioned as plague in many sources, was a plague. In the reports about the plague histories written in the last quarter of the century, the possibility of the disease being a plague has been considered as low given the medical character of this disease of that day and it was argued that it would not be correct to say anything definitive (Payne, 1889: 6).

We can trace the presence of plague outbreaks at the endemic scale up to 542 Justinian plagues, which is the first plague pandemic in history. The bust called *Charnion/Horon* carved into the rocks near the famous St. Pierre Church, 2 km east of Antakya, was built during the IV Antiochus period to stop the deaths and protect the city against the plague during the BC 2nd century plague (Sahillioğlu, 1991: 229). In addition, in BC 23, AD 65 and 79, Rome suffered a fatal plague (Mumford, 2007: 276).

The epidemic that emerged in the Mediterranean between the years of 165-180 and identified as the Plague of Antonine killed approximately 1/3 of the population of the Roman Empire, or five million people. It is noted that military troops, sent to the east under the command of Antoninus Verus to Rome, who fought with the Partians and returned in 166, brought the disease (Freeman, 2003: 542). Eutropius, a Roman historian and statesman who lived in the 4th century, noted that after the victory against the Partians in the history of Rome he wrote in summary, almost all of the people and military units died from this disease (Eutropius, 2007: 211). There are also estimates that this disease, which is considered as the first plague epidemic in history, might be measles and smallpox. The author used the word *pastilentia* for the disease in question. This word is used in Latin to refer to waba / ta'un or infectious/ epidemic disease. In this regard, it is also necessary to take into account the predictions that there may be smallpox or measles. In the continuation of this

epidemic, the Romans continued to fight with the Partians since 193, but after the plague broke through, hundred thousand people were sold as slaves by auction (Ribard, 1974: 243).

The first major plague pandemic known in the world in terms of its results and effect is an epidemic known as *Justinian Plague*. It was named after the Byzantine emperor who lived in the 1st Justinian period (527-565). Justinian Plague is one of the three great plague pandemics that world history has seen. The origin of the outbreak is not fully known. There are opinions that the disease spread from the ancient city of Pelusium in 541 Egypt (Akdere, 2018: 318) or it is of Asian origin (Varlık, 2015: 146-147). North Africa, Europe, Central and South Asia were the most affected regions and it was claimed that approximately 50-60% of the population there died. The epidemic, which reached Istanbul in the middle of the spring of 542, continued its effect here for four months. In this process, although exaggerated death figures such as 244-300 thousand are given, it can be said that approximately 80 thousand people lost their lives. This number corresponded to 20% of the Istanbul population at that time (Akdere, 2018: 318-319; Varlık, 2015: 147).

The epidemic affected different parts of the world periodically until the middle of the 8th century. Incidences of plague epidemics were recorded in Istanbul in 558, 573-574, 599, 618-619, 698, 747-748 (Varlık, 2015: 147). Throughout this pandemic process, the disease appears to have recurred approximately every ten years.

Endemic and epidemic plague outbreaks continued in Europe, the Middle East, Anatolia, Asia and North Africa until the second plague pandemic called *Black Death*. We can say that especially Egypt, Syria and Anatolia geography were important plague foci until the second pandemic (Arık, 1990-1991; Gökhan, 1998; Kılıç, 2004: 22-28; Subaşı, 2005).

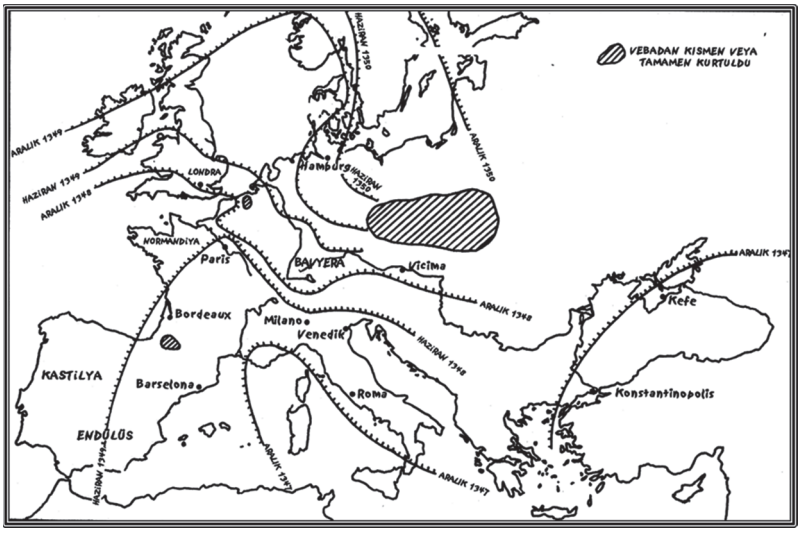
The story of the second plague pandemic emerging in Europe since 1346 started in China in 1331. It was seen in Nasturi merchants in Issyk Lake in Central Asia in 1338, and reached Kefe, the trade colony of the Genoese in Crimea in 1346. It was probably brought here by the Mongols, who surrounded the city.

There is an opinion that the 1346-1352 plague pandemic originates from Central Asia and not in China. The basis of these views is that hundreds of tombstones in a lost village under Issık Lake are dated 1338-1339. On one of these stones, it says "This is the tomb of Kutluk, who died from the epidemic with his wife". Another issue discussed is that the disease is not a bubonic plague caused by the bacteria called *Yersinia pestis*. Some minority scientists have argued that this epidemic may be anthrax, hemorrhagic fever, typhus, or a group of infectious diseases (Bauer, 2014b: 560).

The epidemic extended to Istanbul, Sicily, and Egypt after Kefe and reached Southern France in 1347 and Northern France and South England in 1348.

Then, it made its way to the north, turning Greenland, and then turning east, to influence Moscow in December 1350. The route of Black Death's transition to Europe was from the north of the Black Sea to the Mediterranean. However, there was another route that moved over Tbilisi, then divided into two branches and passed to Mesopotamia and Egypt. Using these routes, it spread to almost all of India, Iran, Caucasus, Russia, Anatolia, Iraq, Syria, Egypt, North Africa, Arabia, Mediterranean Islands and Europe, and its effect between the years 1346-1350 was terrible in Europe, Egypt and Levant. The reason for the spread of the disease so fast was undoubtedly the rats carrying fleas. However, sick people escaping from the epidemic also accelerated the spread. When the disease was transmitted through coughing and sneezing, that is, pneumonic, it was almost a hundred percent fatal. When it was transmitted by fleas, that is, bubonic, its fatality was less than two thirds. The plague destroyed a third of the European population in just four years (Dols M., 1979a: 35; Nikiforuk, 2001: 71; Pointing, 2011: 419-420).

Map 1. Spread of Black Death in Europe (1347-1352)



Kaynak: *(Pointing, 2011: 418)*

Pope VI Clemens' dead counters reported that 23,840,000 people died during the Black Death. China was probably not included in this figure. In China, it was recorded that approximately 13 million people lost their lives. Many people died in Cairo, India, Crimea, Mesopotamia, Syria, Karaman, Kayserya, Aleppo and Cyprus outside Europe. The Island of Cyprus almost lost all its inhabitants. During the epidemic, 22 thousand people died in Aleppo (Hecker, 1859: 21).

J.F.C. Hecker did not find these deaths reported to Pope VI Clemens very realistic, but because of his evaluations about deaths in Europe, he gave the following numbers which he finds more reliable:

Table 1. Black Death and Death Tolls in some European Provinces (1348-1351)

Province	Death Toll
Florence	60.000
Venice	100.000
Marseilles	16.000 (in 1 month)
Siena	70.000
Paris	50.000
St. Denys	14.000
Avignon	60.000
Strasburg	16.000
Lubeck	9.000
Basel	14.000
Erfurt	16.000 (at least)
Weimar	5.000
Limburg	2.500
London	100.000 (at least)
Norway	51.100

Hecker states that 124,434 Franciscan priests who died in Germany and 30,000 minorities in Italy could be added to these figures. According to him, almost all the inhabitants of towns and villages in small countries, whose names are not mentioned here, and whose population is not more than 200 thousand, have lost their lives. Probably 1,244,434 people died in Germany. During the epidemic, many houses remained empty and ruined. The Pope in Avignon blessed the Rhone River when he saw that it was impossible to bury the corpses and announced that the bodies could be thrown into the river without delay. Extraordinary measures were taken to quickly remove the bodies, buried in mass graves in Cairo, Paris, and Vienna, outside the cities. In some places, it was even reported that some of the patients were buried before they died in a hurry. After the cemeteries were filled in Erfurt, 12 thousand bodies were buried in eleven large pits. Mass grave practice was seen in almost every city. Italy had the largest loss in the outbreak of epidemic. Half of Italy's population died in Black Death. When 3/4 of Venice's population died, the city was abandoned for a while and left uninhabited. 1/3 of Padua's inhabitants were able to survive. It was forbidden to publish the number of deaths and to ring bells at funerals so that those who survived in Florence were not despaired. For England, the picture was also very scary. Here too, the bodies had to be buried in a row. 50 thousand corpses were buried in a pit in London in a row (Hecker, 1859: 22-24).

Although the plague epidemic was not as devastating as in the period of 1346-1352, it continued and had an impact in the following years. Between the years 1347 and 1536, epidemics of plague occurred on average of every 11 years, and in the following 150 years on an average of every 15 years. Half the population of Northern Spain died in the plague epidemic in Spain in 1596 (Point-

ing, 2011: 419-420). Severe plague outbreaks occurred in England in 1506, 1517, 1528-1529, and 1551 (Hecker, 1859: 179-184), in Naples and Rome in 1525, in Milan in 1550, in Venice in 1575-1577 and in Messina in 1575-1580. In 1580, an animal disease called *Del Montene* or *Castrone*, which surrounded all of Italy, emerged and threatened human health in several outbreaks. 60 thousand people died in the outbreak in Rome in 1581. In the outbreak of Milan in the same year, only 5,000 people survived in the city. Great plague epidemics occurred in Europe in the 17th century; in 1630 in Milan and Verona, in 1630-1631 in Florence, in 1631 in Venice, in 1656 in Genoa, in 1664-1665 in London (Braudel, 1989: 221-222; Dols M., 1979b: 165; Flinn, 1987). The London epidemic of 1664-1665 was the last plague epidemic in England. Plague did not stop in Ireland after the epidemic of 1651-1652 (Payne, 1889: 14). The Marseille epidemic in 1721 had its main effect in Southwest Asia and Egypt (Pointing, 2011: 419-420).

Plague epidemics naturally affected the Ottoman geography in the 14-18th centuries. Istanbul, Egypt, Wallachia-Balkans, the Balkans, Anatolia and Iraq-i Arab were the major plague focal points (Kılıç, 2004: 43-62; Kılıç, 2016; Varlık, 2017; Lowry, 2003; Panzac, 1997; Varlık, 2017).

Although plague outbreaks diminished their impact in England and Western Europe after the mid-17th century, Russia, the Danube basin, Istanbul and Egypt had to deal with outbreaks for a while. The last plague epidemic in Istanbul occurred in 1841 and in Egypt in 1845 (Payne, 1889: 14). Since the second half of the 19th century, a great reduction in plague outbreaks has been observed. This situation followed the same course in the Ottoman Empire and replaced the plague with cholera (Panzac, 1997: 1).

The third and last of the plague pandemics started in India in 1896. The epidemic lasted almost half a century, causing the deaths of over 10 million Indians until 1918. This number reached 13 million in 1948. The cholera epidemic that occurred in Bengal in 1893 just prior to the epidemic was also a significant serious epidemic (Ferro, 2002: 230). The epidemic that started in India transmitted to America in a short time and the death toll caused it to be considered as a pandemic. A Chinese ship probably brought infected rats and fleas to San Francisco, a port city. In 1900 and 1904, 121 plague cases were detected in San Francisco and 113 people, most of whom were residents of Chinatown, died. Two years after the last bubonic plague happened in San Francisco, there was a major earthquake on April 18, 1906, leaving hundreds of thousands of people homeless. Meanwhile, the population of rats and fleas increased, and the plague flared up in the city. Finally, 166 people were infected, 77 of them died. More than a million rats were caught and killed during this epidemic. Doing such a large rat clearance undoubtedly reduced the effect of the outbreak and the number of dead remained low. After this epidemic, pneumonic plague occurred in California in late 1924 and early 1925, and 30 people died, most of whom were Mexican migrant workers. An average of 1,500 plague cases per year have been reported worldwide since the 1960s.

The disease is most common in countries where drugs are difficult to obtain and hygienic conditions are non-standard (Slavicek, 2008: 108).

Cholera

It is a global epidemic disease that has been encountered in many countries of the world since the beginning of the 19th century and has replaced the plague in a sense. It causes severe acute watery diarrhea and is extremely lethal. If a person took cholera contaminated food or water, it would show its symptoms in 12 hours or 5 days, and if not treated, it could cause death within hours. Most people who get infected with cholera do not develop symptoms. After 1-10 days, these people start having bacteria in their stools, thus the bacteria returning to the environment and potentially infect other people. The World Health Organization (WHO) shows the Indian Ganges River delta as the original source of infection and acknowledges that 7 pandemic cholera epidemics spread to all continents until 1961 (WHO, 2020b). These are the pandemics that respectively occurred in 1817-1824, 1829-1851, 1852-1859, 1863-1875, 1881-1896, 1899-1923 and 1961-1991.

Even if the cholera is not fully defined, it is likely to have a history dating back to the ancient period. It was mentioned above that the probability of an epidemic disease, which Hittites call Henkan, can be cholera. In addition, it is known that cholera-like diseases were identified in India in the 5th century BC and by Hippocrates in Greece in the 4th century BC. It is mentioned in Indian medical texts that a disease called *nja* containing the symptoms of cholera was observed in the 9th century (Pollitzer, 1954: 421-422). It is difficult to say something clear, since this and all such information is not sufficiently descriptive, and it could be associated with other diseases.

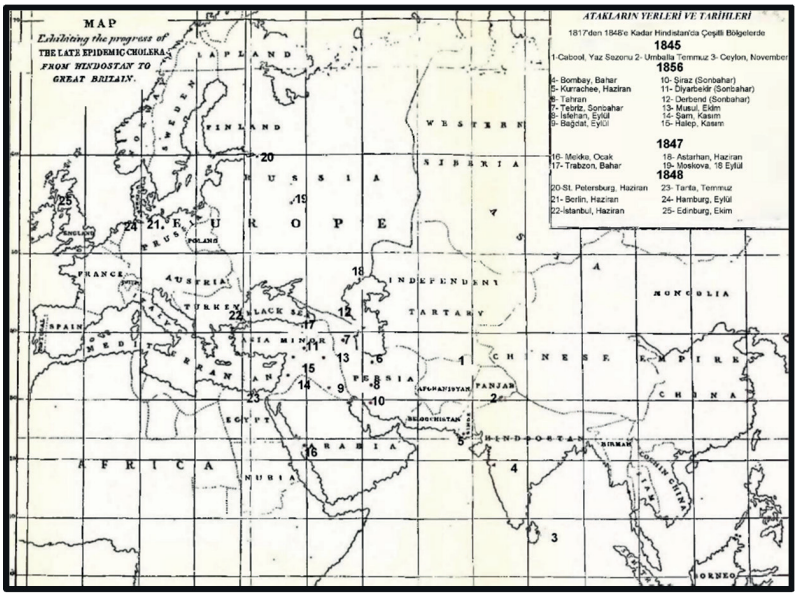
In the early 16th century, cholera disease was more clearly defined. Portuguese historian Gaspar Correa noted in his work Lendas da India that a person died within eight hours of an illness that began suddenly in the abdomen, as was observed since 1503. This disease was identified by the locals as moryxy and reached a very high mortality rate in the spring of 1543. This epidemic in Goa was the first described cholera epidemic (Macpherson, 1872: 201; Pollitzer, 1954: 423). Some outbreaks showing signs of cholera were reported to take place in France and England. It is stated that the popular name of this disease in France at that time was TrousseGalant and was used as a synonym for cholera until 1643 (Macpherson, 1872: 44). From 1503 to the first pandemic in 1817, cholera incessantly maintained its effect in India. In this process, 10 out of 64 epidemic diseases were reported to have epidemic character by the Portuguese, Dutch, French and British independent observers and authorities (Macpherson, 1872: 201; Pollitzer, 1954: 423).

Cholera, which was something familiar to India, became a global threat by increasing its contagious and spreading power since the beginning of the 19th century. In 1811, it spread from Calcutta and Jessore to China and Indian archipelago and made it to the west and gained a pandemic feature since 1821.

Cholera continued its spread on the route of land and sea trade routes established by Europeans. The epidemic, which was effective in Sri Lanka, Myanmar, Thailand, Indonesia, and the Philippines, caused the death of 100 thousand people in 1820, 17 thousand of them in Batavia, on the island of Java in Indonesia. It was seen in China in 1820 and most importantly, it was transported to Muscat in Arabia by British troops traveling to Oman by British troops in July 1821 and the epidemic met a new geography. When he reached Basra in 1821, Cholera caused 15-18 thousand deaths in three weeks. It spread to the lands known as Turkey, Syria, and Iran today. In 1823, the outbreak occurred in Tbilisi and Astarhan on the Caspian Sea coast. Baghdad, Shiraz, Tehran, Aleppo, and Iskenderun were important cities that faced the epidemic. There is also scarce information that it reached the African coast between the years 1820-1821 and was seen in the narrow coastal areas of Zanzibar (Dunham, 1866: 427-431; Pollitzer, 1954).

The second cholera pandemic is thought to have occurred in India, and possibly in Bengal, which showed signs of activity there in 1826. The epidemic reached Moscow in 1830. It expanded north through Russia, Poland and Austria, and spread to St. Petersburg and Kronstadt in July 1821 and to Vienna, Berlin and Hamburg in October 1823. From Hamburg, it leaped to England's coastal city, Sunderland. The disease was transmitted to London in the spring of 1832, and then to France on March 23, causing the death of 23 thousand people in a month in Paris. In 1832, the total number of cases in England was 14,796 and the total number of deaths was given as 5,432. The epidemic, moving on a migrant ship from London, arrived in Québec city in North America on June 8, 1832 and started to appear in New York a few weeks later. At the end of 1832, the presence of cholera was detected in Ireland. Although it did not cause much damage in Belgium, Holland and Norway during its expansion in Europe in 1832, cholera cases were encountered. The epidemic occurred in Mexico and Cuba in 1833, but there was no consensus on its spread to Chile and Peru. Since the second pandemic lasted for more than twenty years, it continued its movement and caused the death of a large number of people, even though there were one or several years of interruptions in many countries in Asia, Europe, America and East and North Africa (Dunham, 1866; 5-6; Pollitzer, 1954; 431-440). The second cholera pandemic, which took place in 1829-1851, spread over a wide area and affected the four continents significantly.

Figure 2. Spread of Cholera Epidemic in 1845-1848[2]



Kaynak: *(General Board of Health, 1850)*

Mortality rates in the second pandemic show similarities in Europe and America. Deaths in private health institutions in Great Britain accounted for approximately 39.5% of cases. This rate was about 57.25% in hospitals. In 1831-1833, 52,547 of 131,080 cases of cholera in Great Britain resulted in death. These rates remained roughly the same until the end of the pandemic. According to official figures in New York, 2,631 cases of cholera were encountered in 52 days in 1849 and 34% of them, namely 915, resulted in death (Dunham, 1866: 7).

From 1825 to 1844, 1/7 of all European soldiers' deaths in India originated from cholera. This rate was 1/5 for domestic soldiers. In July 1846, the cholera epidemic killed 300 people a day in Tehran for several days. At the end of the epidemic, 1/5 of the city with a population of 60 thousand, that is, 12 thousand people died. Of the 30 thousand populations whose conditions became more lethal in Tabriz, 6,677 died within twenty days. It is noted that cholera deaths in Baghdad exceeded 30 thousand in 1846. The epidemic killed about 9,000 people in Greater Canary Island in 1851, most of them in a few days (Dunham, 1866: 6-7; General Board of Health, 1850: 3-7). The cholera epidemic killed 20,000 people in Mecca in 1831, 15,000 in 1846, and 2-3,000 of the pilgrim candidates in Arafat in 1847 overnight. 6 thousand people died in Istanbul in 1831 and 5,275 people in 1847-1848 from cholera. During the epidemic of 1831, the first quarantine practices started in the Ottoman State (Sarıyıldız, 2001: 310-311).

[2] The map has been revised for the study.

The third cholera pandemic occurred between the years 1852-1859 and was the deadliest of the pandemics. The outbreak was originated from West India and it was effective mainly in Asia, Northern Europe, North and South America and Africa. With the outbreak of the Crimean War in 1856, it also infected in Istanbul and the Balkans, through allied soldiers, especially the French. In the 1856 epidemic, 3,500 people died in Istanbul. The relatively milder aspect of this outbreak was that its source was identified. It was understood that contaminated water played a serious role in the spread of the disease and drinking safe and clean water was of great importance in preventing the disease (Pollitzer, 1954: 440-441).

The fourth cholera pandemic occurred in 1863-1875. This time Cholera penetrated Egypt, Istanbul, Southern France, and Europe through Arabia, not via the roads to the port cities on the coast of Iran and the Caspian Sea. Like other outbreaks, the area of influence was the continents of Asia, Europe, Africa, and America. Despite being less severe compared to other outbreaks, mortality rates were still very high in some places. For instance, about 115 thousand people in Prussia in 1866, about 80 thousand in Moravia and Bohemia, 30 thousand in Hungary, 20 thousand in the Netherlands and around 30 thousand in Belgium. In 1867, 130 thousand people died from the cholera epidemic in Italy, including Sardinia. The disease, which spread from Russia in various directions in 1871, was also carried to Black Sea ports in Romania and Bulgaria and to Istanbul and Trabzon. The disease spread to Thessaloniki in 1873. 190 thousand people died in Hungary between the years 1872-1873 (Pollitzer, 1954: 442-448). The outbreak in Istanbul caused the death of 15 thousand people in 1871 and 7 thousand people in the 1876 invasion (Sarıyıldız, 2001: 317).

The fifth cholera pandemic (1881-1896) caused the most rigorous death tolls in the years 1881-1883 and 1890. In 1892, all of Europe surrendered to cholera, except for the Ottoman Empire and some of the Balkans. During this epidemic, England had to re-introduce quarantine practices. Despite the measures taken in 1893, the disease reached Istanbul and 1,537 people died. In the pilgrimage season of the 1893 epidemic, which was the "Hajj-ı Ekber" that year, 30 thousand people died, thus demonstrating its most severe impact in the Ottoman geography (Sarıyıldız, 2001: 318-319). The epidemic occurred in Asia, North Africa, Europe and America, but Britain and America had less damage with clean water resources and quarantine implementation. In its initial periods, the epidemic was limited to France, Italy, and Spain in Europe. In 1885, five thousand out of 10,000 cases resulted in death in France (Pollitzer, 1954: 449).

German microbiologist Robert Koch (1843-1910), who is the founder of modern microbiology in the fifth pandemic, showed that the presence of bacteria in the intestine caused cholera and found its agent (Vibrio cholerae) in 1883. In this way, the things to be done to prevent the spread of the disease or to keep it in place was understood and the rate of cholera epidemic was kept under control since the beginning of the 20th century (Yıldırım, 2020: 62).

The sixth cholera pandemic in 1899-1923 did not affect Europe and North America much due to the developments in creating public health and hygienic environments. However, it took the toll on India and Russia, the Middle East and North Africa. By 1923, the cases decreased and retreated to India, which was the first outbreak point. More than half a million people died from cholera in India in 1918-1919. 109,560 people died in 1910 in European Russia, this figure dropped only to three in 1912. Although cholera cases were observed in almost every country in the Balkan peninsula between 1910 and 1922, it did not cause high-scale deaths. On the other hand, 682,649 people died from cholera in 1906, 579,814 in 1908, 556,533 in 1918 and 565,156 in 1919 (Pollitzer, 1954: 452-457).

The seventh pandemic cholera, which started in 1961, appeared in Indonesia, unlike the others. It reached Africa in 1971 and spread to Asia and the Middle East. More than 90% of cholera cases reported to the World Health Organization in 1990 were from the African continent. In 1991, the epidemic that came to South America almost a hundred years later, killed 3,000 people in Peru. Then, it spread to Central America and Mexico.

According to the World Health Organization, cholera continues to be a global threat to public health. It is suggested that it emerged because of largely impoverished, underdevelopment and lack of social development. It is estimated that there are 1.3-4 million cases of cholera and 21-143 thousand deaths worldwide every year due to cholera infection (WHO, 2020a).

Influenza

In its most common general definition, influenza is an acute and febrile respiratory disease. It is caused by influenza A, B and C viruses. The most common symptoms are headache, muscle and sore throat, high fever, dry cough, and weakness. The disease can be passed mildly and without symptoms, and it can also develop serious and sometimes complications leading to death. The most serious complication is pneumonia / pneumonia, which occurs when the flu infection reaches the lung (Temel, 2015: 15).

The flu was an infectious disease that probably threatened human health from ancient times. Hippocrates (460-380 / 375 BC) mentioned a flu-like illness. Studies on this issue show that about ten flu pandemics have occurred in the past 400 years and most of them have been seen in China. The name of the disease emerged in the late Middle Ages when the word "influence" in Italy (Italian: Influenza, Latin: Influentia) was used to emphasize that the unusual arrangement of the planets in the sky would cause diseases. In Turkish, the word grippe taken from French is used in the form of flu (Temel, 2015: 16).

Influenza was not seen as anything but a pleasant annoyance, as it was not a disease that caused people's death or disfigurement and decay in their bodies in a short time, such as the plague, smallpox, malaria or cholera. The flu virus, which has been traveling around the world for thousands of years, and the

emergence of which was not discovered until 1933 started with the domestication of horses, pigs, or ducks by farmers. These stables and poultry have been proved to be flu carriers. The virus that causes the flu disease is constantly mutated and the antibodies of the immune system become no longer recognizable and a new flu appears, which also changes along with the mutation of the virus. This is the main reason why vaccine manufacturers are always one step behind in flu viruses. The flu did not affect very large geographical areas until the 18th century, so it did not have a pandemic character (Nikiforuk, 2001: 187-191).

The first epidemic identified in the history of epidemics with the name of influenza was the epidemic that affected Italy and France in 1173. The flu epidemic in 1580 can be considered as the first flu pandemic. The epidemic originated in Asia and reached Africa, Europe and America. It was noted that 8 thousand people died in Rome alone. An epidemic that started in Russia in 1729 affected all of Europe. The epidemic continued at short intervals until 1733. The flu epidemic, which started in China in 1781, gained an intercontinental scale in a short time and took its toll on Europe and America within eight months. The world made favorable developments in the late 18th century to better fight against flu outbreaks and prevent its spread. The point reached in the field of transportation enabled the disease to spread from one continent to another in a very short time, and the lack of hygiene in the cities was another triggering element. Indeed, there were three flu pandemics in 1830-1831, 1883 and 1889-1890. The most important of these, the 1889-1890 pandemic, was called *Russian Flu* because it spread to Europe through Russia. There are different opinions that the first source of the disease may have originated from China, Canada, Greenland, or Siberia. However, the first cases were observed in St. Petersburg and spread to Europe (Yolun, 2012: 41-43).

One of the biggest disasters in human history was experienced in 1918. The flu pandemic that started that year probably occurred in Asia and reached a pig farm in Iowa in the USA. The epidemic that spread from here was the *H1N1* virus called *Influenza A* and was known as Swine Flu because it spread from pigs. According to the findings of Iowian scientist Richard Shope, the flu of 1918 was almost a blend of virus and bacteria. The epidemic did not distinguish between young and old, and many healthy young people died of pneumonia. American soldiers carried the disease to Europe before the unusual escalation in the death tolls was noticed. The Germans called the epidemic *Bliz Katarrh*, British soldiers *Flanders Flu*, American soldiers called *Spanish Flu* or *Spanish Woman*, however out of all these terms Spanish Flu was the most commonly used term (Nikiforuk, 2001: 194-196). The epidemic, which occurred in three cycles, caused the death of many people, and brought about various economic and social problems. One-fifth of the soldiers in America were suffering from flu. Five thousand people died in a day in Philadelphia, and the gravediggers could not bury the bodies in one month. India, on the other hand, lost a quarter of its population in the epidemic (Nikiforuk, 2001: 194-196). It is determined that the US population, which was 105, 253, 300 in

July of 1918, decreased by 4 million in October-November whether because of influenza or not (Sydenstricker, 1920: 6).

Spanish flu also affected the Ottoman geography, but it was not as devastating as other epidemics or other places in the world. It is estimated that around 15-20 thousand people died in Istanbul in 1918 due to the flu. According to evaluations made by different people and institutions, 40-50 million people died in the world due to the Spanish flu. The country most affected is India with a loss of 18,500,000 people. It was followed by China (4-9.5 million), Indonesia (1.5 million), USA (675 thousand), Nigeria (455 thousand), Russia (450 thousand), Italy (390 thousand) and Japan (388 thousand) (Yolun, 2012: 114, 121-130).

After the Spanish flu, there were three more flu epidemics that erupted in China. The 1957 outbreak was named as *Asian Flu* and *H2N2* type virus caused the disease. The outbreak in 1968-1970 originated from the *H3N2* virus and has been described as the *Hong Kong Flu*. Approximately 1 million people died in each of these pandemics in the world. Following these, another epidemic occurred in 1977, but this epidemic remained at an epidemic level. 200,000 people died in the Swine Flu pandemic in 2009-2010. The *SARS* pandemic that emerged in 2003, the *MERS* which occurred in 2015 and which is still continuing and the *COVID-19* pandemics that emerged in the last months of 2019 and affected the whole world, are influenza from the *coronavirus*.

Effects of Global Epidemic Diseases on Society Life

Epidemics have affected human and society life in many ways. This effect varied according to the conditions, understanding and knowledge of the time of the epidemic. However, no matter which era the epidemic occurred, it can be said that the fact that people were exposed to many casualties due to an illness they faced at an unexpected time showed similar social, economic and political effects.

Psychological and Social Effects

The most prominent effect of epidemics in history in the short term is the shock and panic created by the psychology of a death wind, where people do not know their nature, origin, cause, and treatment. If people lived where the deadly epidemic originates, either they tried to escape immediately, or they gave up everything and surrendered to death by neglecting their families. During the 1348 plague epidemic, it is noted that Florentine people felt like that they might die any day (Slavicek, 2008: 78-79). A father who was depressed in Chicago in Spanish flu in1918 found the cure of the disease in cutting his children's throats (Nikiforuk, 2001: 195). Since people believed that a poisonous gas had come out of the infected bodies in plague outbreaks in the Middle and New Age, they had their beggars or ex-criminals doing their work professionally, without even thinking about the burial work of their relatives (Slavicek, 2008: 79). It is possible to see this uneasy/hysterical mood created by diseases in almost every epidemic.

Those with the epidemic were mostly treated at home. Other residents in the house, living side by side with pain, were experiencing a psychological breakdown.

Fear, anxiety, panic, hopelessness, and the belief in catching an epidemic spoiled the mental balance and could lead many people to suicide. In the plague epidemic of Milan in 1630, there were people living alive in the grave before they died or after they died, or people who dug their graves and died there after they buried their dead (Minios, 2008: 177). Daniel Defoe analyzed suicidal responses over the 1665 London outbreak. According to his findings; if frustration and fatalism in the end of a few days prevented people from being cautious, this was an indirect suicide. Some of them were especially throwing themselves into the water and were strangled. Those who caught plague were killing themselves with unbearable suffering by burning their bed, jumping out the window, or with a gun. Others were killing themselves in fields or forests at the bottom of a bush (Defoe, 1896: 174-175).

The disturbed mood caused by the unknown origin and nature of the epidemic disease sometimes forced administrators to do irrational practices. During the London epidemic of 1665, people still did not know that the plague was spread by fleas carried by rats. They guessed it was caused by animals, but they chose the wrong animal as the victim, which were cats. Based on this idea, the mayor of London ordered the killing of all cats and dogs, which brought more rats, more fleas and inevitably more plague (Bauer, 2015: 118).

During and after the Black Death epidemics (1348-1430), infant mortality rate is quite high. The act of killing babies by drowning was no longer exceptional and became common. People were able to kill or abandon their babies due to their corrupt psychology during outbreaks. The poverty and harsh life conditions encountered in the years of plague epidemics in Italy made people so cruel that they could afford to be a child murderer by killing their children who were not fully formed then. As the number of children losing their parents in the epidemic increased with the abandonment of children and babies, orphanages were established as a social imperative. Orphanages established in 1445 in Florence can be given as an example. The establishment of orphanages relieved mothers and fathers in a sense, causing more babies or children to be abandoned (Ronciére, 2006: 234-235, 291). During the Spanish flu in Philadelphia in1918, children whose parents died, were strayed in the streets as flu orphans (Nikiforuk, 2001: 195).

Another socio-economic impact of outbreaks in European societies can be expressed as family crises. Some families whose financial status deteriorated after the epidemic tried to establish a relationship with another family with good conditions and improve their financial status. Some desperate nobles in Central Italy committed banditry and hired their military forces to neighboring city-states as mercenaries. Despite all this, some noble families disappeared without leaving any heir in life. This damaged the noble centered social and

economic system. The dynasties, the enviable properties, which took centuries to build, have been erased from the history of many noble families that have been swallowed by another family at once (Slavicek, 2008: 85-87).

While epidemic diseases continued, there was an excessive demand on social service groups. Clergymen, lawyers, and notaries were required for the last rites of agonizing and dying people, and doctors and pharmacists for treatment. In pandemic diseases, tens or even hundreds of people died every day in some places. Therefore, gravediggers can also be considered as the most needed social workers of the era (Slavicek, 2008: 79).

One of the most important social consequences of epidemic diseases is the disruption of the social order in many respects. In epidemics or pandemics, people often ignore the rules of society and law, and often take out banditry, plunder, rape, etc. Their involvement in inappropriate behavior has occurred in every society during and after the outbreak.

The causes of epidemic diseases are certain, and when the importance of sanitation is revealed, there have been changes in the understanding of cleanliness and hygiene of societies. In addition to personal cleaning, it was necessary to follow the hygiene rules in social life. It became clear that especially Christian societies should make a radical change in bathroom and toilet cultures because hygiene was not a requirement of their religion. The person who was washed at baptism no longer needed cleaning. However, this spiritual cleansing, unfortunately, did not provide protection against carriers and germs of epidemics (Tannahill, 2003: 130). Although the Romans preserved the culture of the bath, the habit of the bath was abandoned after the fall of the Roman Empire in 476. Bath and bath culture in Europe were revived for a short time due to the epidemic since the second half of the 14th century. Unfortunately, until the end of the 17th century, people kept away from water and soap. Since the bathrooms were used in free intercourses, venereal diseases from the Far East and America spread, but it was finally concluded that the disease spread through the water. Europeans, afraid of syphilis, abandoned the bath and bath traditions and threw themselves in the lap of diseases. People sprayed perfume instead of taking a bath and started to wear underwear so that their expensive clothes do not get dirty. Baths, on the other hand, became places where syphilis patients were treated and mercury cures were performed (Nikiforuk, 2001: 131).

The habit of not taking a bath in Europe was, in a sense, a crime of the Catholic Church. The church did not worry about the disastrous unhygienic environment or the natural smell of man. It was the Triente Consul, which, for moral reasons, imposed a general ban on bathing, thereby leading to a new fragrance barbarity. People were desperately wrapped in heavy scents to hide the bad odors created by the non-cleanliness, and the laundry was washed and perfumed more often to remove the stench (Hurton, 1995: 35-36). In the 17th century France, an oriental fragrance named *Pomander* was very fashionable.

There were six kinds of smells in an orange-like bowl, usually made of gold or other precious metals. Noble women carried this in a decorative style with a chain on their belts and believed that these fragrances would protect themselves from epidemics. The death of many wearers from the plague did not prevent this habit from disappearing and it continued to be used as a somewhat magical measure (Morris, 1999: 105). In Europe, personal cleaning and bathroom culture started to settle in the middle of the 18th century, and in the 1740's, aristocratic families started to have baths in their summer and winter houses. Bathroom had returned as a luxury entertainment and therapy tool rather than a concern for hygiene (Grieco, 2005: 60).

Especially when it was revealed that the cholera epidemic spread from contaminated water sources and food, more attention was given to environmental and hygienic conditions. After the big fire in 1666 in London, the houses made of wood and reeds that were suitable for the living of mice and vermin were abandoned, and the houses made of tiles and bricks started to be built, thereby significantly reducing plague outbreaks (Payne, 1889: 14).

It is possible to say that Muslims and Jews paid more attention to sanitation and personal hygiene than Christians during historical epidemics and that epidemic diseases spread less in these societies.

In the Ottoman society, precautions were taken to produce basic food products in hygienic conditions rather than personal cleaning and delivery to the consumer without deterioration. In the third cholera pandemic, which started in 1985, an order was given to the butcher shops in Istanbul with the thought that the disease might be related to spoiled food consumption in non-hygienic environments. Because until that time, every butcher's shop also served as a slaughterhouse, and animals were slaughtered and sold in the same place (Sarıyıldız, 2001: 313).

Political Effects and Results

Major epidemics have affected the armies throughout the history, fighting against the disease on the battlefield. The Peleponnes wars took place under the shadow of the plague, the expeditions of Alexander - malaria, the wars of the Crusades – malaria and typhus, the Century Wars of the Medieval Age (1337-1453) - plague, the Crimean War – cholera and the last years of the First World War - Spanish flu. We can say that epidemic diseases directly or indirectly affected the course and outcome of these wars. Apart from these, dozens of examples of the effects of epidemic diseases can be given to the consequences of many wars, invasions, conquests, or sieges in history. Perhaps two of the most important for human history are the defeats of Aztecs in 1520 and the Incan Empires in 1531 against the Spaniards with relatively smaller number of soldiers due to the smallpox epidemic they suffered and their vanishing from history.

During the Crusades, the Crusader armies fought against hunger, plague and malaria, and the army of 500 thousand fell to 100 thousand (Runciman, 1989:

170-197). Most of the diseases, whose symptoms were not clearly known, could be malaria, which was also common in the Arab geography. Indeed, Nikiforuk says "The Arabs beat the Crusader armies with malaria" (Nikiforuk, 2001: 30).

There are many social and economic reasons that brought the end of the Ming Dynasty, which took over in China in the 14th century, in 1664. A Chinese postman named LiTzu-ch'eng and people who were dissatisfied with what he had gathered had not encountered any resistance when they arrived in Beijing because the soldiers had left the city hit by the plague. Thus, the three-century-old Ming Dynasty came to an end and the Manchians who were not actually Khan Chinese dominated China. This historical event, which is important for Chinese political history, of course had many distant and close causes. However, the last reason was plague (Bauer, 2015: 95-97).

The enormous political powers of the great feudal lords in France and England decreased well before the 1348 great plague. In the second half of the 14th century, powerful monarchic administrations were active, and feudal gentlemen were no longer as strong as before. Despite the political influence of the central royal governments, it was still the responsibility of feudal lords to provide local security when Black Death reached France and Britain. Throughout the 1400s, landlord nobles supervised the power of courts and law enforcement units. In contrast, some aristocratic families, who were heavily affected by the Black Death pandemic, neglected their police and judicial duties. This led to the deterioration of law and order in the European countryside. People increasingly used violence to get rid of their class differences, and rural crime rates increased rapidly. The restless and increasingly violent atmosphere of the post-plague years contributed directly to two popular uprisings, first in France and then in the UK. The Century War between Britain and France continued for more than twenty years when the *Jacquire Uprising* (Peasant Uprising) broke out in France in the spring of 1358. This revolt did nothing but the rise of the lawlessness that the kingdom was dragged into after the epidemic in France. When the pandemic took a short break in 1350, the Spanish army and other mercenaries employed by the British army wandered in the countryside of Northern France and carried out looting and rape. The villagers in northern France rose up against the aristocracy in France, and the gangs formed by the villagers robbed and looted the nobility for about a month, as the manor owners could not protect themselves and refuse to compensate them. Government troops were only able to end this uprising by slaughtering groups that terrorized. The name *La Jacqueria*, given to this bloody rebellion, comes from *Jacques*, which is used as a general name for all villagers in France (Slavicek, 2008: 87-88).

One of the events that showed the role played by plague in the political history of the states occurred in England. Twenty years after the Jacquerie Uprising in France, this time England was shaken by a peasant revolt. The leading cause of the 1381 Peasant Revolt was a tax that the royal government imposed on all British citizens over the age of 15 to finance the ongoing Century War.

Most of the villagers were strongly against this tax. Because everybody, rich or poor, would pay the same tax and so it was unfair. The peasants were worried that the noble cash-strapped nobility would reverse the economic and social gains they had made after the pandemic. In late spring of 1381, angry peasant communities in East England attacked local tax collectors and nobility, and the uprising soon spread to a large part of the southeastern part of the kingdom. The rebels led by Wat Tyler, a blacksmith, set off for London in June to make their complaints directly against the King of England II Richard. However, Tyler, whose army cannot be compared to the regular royal army, was killed. The killing of Tyler fueled the rebellion even more, thousands of villagers were executed to suppress the rebellion. The government also abolished the taxes that the people and especially the peasants did not like, in order not to decrease the population, which has decreased considerably due to the plague (Slavicek, 2008: 88-90).

Effects on Economy

In societies with a certain financial system tax order, every person who dies refers to a decrease in tax income, production, labor and consumption. The most important consequence that epidemic left behind was human deaths and directly affected the economy.

Justinian Plague, which started in 542, had a serious destructive effect on the population of Istanbul. The people of Istanbul could not even leave their houses and the streets remained empty due to the plague. This situation, of course, caused trade and production to stop. Merchants and artisans who completely closed their businesses left their jobs. Most of the workers in the agricultural sector died and then there was a serious shortage (Akdere, 2018: 320-322). In this epidemic period, although the harvest time was over in Italy, the product was waiting for the workers to collect the harvest and the grapes were standing in the vineyard. Therefore, the survivors needed to be reorganized to rehabilitate the natural fields and swamps that replaced the cultivated areas (Montanari, 1995: 18-19).

During the 1348 plague epidemic, similar scenes were experienced, the trade places were closed, the fields were empty, and the animals were left unattended. Cessation of production meant higher prices. In all epidemic times and afterwards, especially the prices of basic food products increased excessively. Lack of labor also increased wages.

Although many jobs were interrupted and the costs of certain services and goods were high, the economic effects of Black Death were not completely negative. After surviving the first shock of the outbreak, the standard of living improved for most of the survivors. There was a lot of population in Europe and the available nutritional resources were not enough. For this reason, there were frequent famines before Black Death. After the epidemic, resources were now sufficient for the current population (Slavicek, 2008: 81).

After the 1346-1352 pandemic, the nobles in England wanted the fields to be cultivated but they could not find people to work in their fields. For this reason, many crops could not be harvested and rotted in the fields. The survivors and farmers found themselves in a high wage environment and were no longer able to work at all costs. They demanded high wages, the nobles who had to pay them started to get poorer and their property was getting smaller. On the other hand, the financial situation of the workers improved, and they started to take their own lands. The feudal system that the peasants worked for the nobility in exchange of land started to collapse slowly, and the Parliament's limitation of wages did not work well. A few large landowners were able to partially improve their situation by switching to animal husbandry where fewer workers were needed. Upon this development, there was an increase in the wool production of the island and the production, which was one thousand balls in 1350, increased to 11 thousand tons in 1362 (Slavicek, 2008: 81-84).

If people who died during epidemics were taxpayers, this meant a tax loss. The fact that people left their places and went to other places for the purpose of not getting infected caused them to remain unregistered for at least a while. Thus, they did not pay their taxes or perform their activities related to their fields of activity. During the plague epidemic that continued in Cyprus in 1573, poll tax, which was one of the taxes collected personally, was not fully collected due to deaths from the plague. Since the janissary salaries were covered by the authority, their salaries could not be paid from this resource and brought an additional burden on the state budget (BOA, MD 23, 1573: 176/372). The state often imposed tax exemptions for a certain period so that services in places facing epidemic diseases were not disrupted or evacuated. Tax exemptions also meant an unexpected and unplanned decrease in revenues and an economic crisis.

In Ottoman society, during the epidemic, more problems were encountered in collecting the taxes of non-Muslim subjects because non-Muslim people were more in a hurry and insistence on leaving their places when compared to the Muslim population. This has often resulted in the lack of adequate or no collection of poll tax income. From this point of view, it can be said that the item which was mostly affected by epidemic diseases among Ottoman tax types poll tax income. Not only the personal taxes of the deceased, but also the taxes on the products they produced, bought, and sold decreased and reduced as such. In this context, it can be said that there were serious decreases in the taxes collected from cereals, agricultural activity taxes and commercial activity taxes (Kılıç, 2019: 382).

One of the most important effects of epidemic diseases on economic life is that domestic and foreign trade has come to a halt from time to time. In the plague epidemic periods, no goods that could come from a diseased place were brought inside the borders. For example, quarantine was applied to the ships berthing in the port since 1485 in Venice. The first quarantine implementation in the Ottoman State started during the 1831 cholera epidemic. Although

its necessity and benefit is not discussed, it should be noted that quarantine practices are another factor preventing the viability and continuity of trade.

Effects on Settlement, Immigration and Population

It is common for people to change their places as a precaution because of epidemics. During these displacements, the old places were either completely emptied or there was little population left. Migrants either set up a new resettlement site or settled in another rural or urban resettlement site where the disease is less common.

The fact that the infected people left their places of residence by migrating was a danger and could cause the disease to spread rapidly. The movable and immovable properties left in the abandoned places were open to robbery and pillage. In this regard, the security of life and property of the few people who remained in the evacuated regions was also endangered. Epidemic migration caused bidirectional negativity. The first was the disruption of the service they were obliged to perform in the regions they left, and the other was the reduction of the taxes they gave. Every mass migration incident meant that one place was devastated, and another was the settled. A place could decrease in terms of population and disappear completely after a while, or a very small settlement could become a large settlement center. Since the migrations experienced in disaster times were unplanned and/or planned in a short time, the places receiving immigration were caught off guard. Therefore, economic and social problems were inevitable (Kılıç, 2017: 382).

Many of the villages destroyed by plague during Black Death in Europe (1346-1352) could not be re-sized. The survivors migrated to many cities. Rural areas have reduced population, and cities have become crowded. Artisans also moved to cities where they could sell car wheels, barrels, iron tools, clothes, and other goods they produced to more people. Clergymen, whose churches in the countryside were empty, also made their way to the cities. This transportation, which developed from the countryside to the cities, was called urbanization. Since hundreds of houses were left empty in rural areas, the villagers who remained in their settlements settled here and started to cultivate abandoned lands. Since there was no one to dislodge them anymore, they became the new owners of the land (Bauer, 2014a: 208).

At the end of the plague pandemic that started in the middle of the 14th century, there was a significant decrease in the world population. In 1000, the world population was 265 million. This population increased by more than a third in 1200 and reached 360 million. In the 200 years that followed, there was no increase, but a decrease. Of course, wars had a role in this as well as plague. The fact that the Mongol invasion continued in China for almost a century had reduced the huge population of 115 million to 85 million in the 1300s. As there was no recovery in the 14th century, the population decreased even more due to the plague. The Asian population was also less in the 1400s than in the 1100s. Due to starvation and plague epidemics, the world population,

estimated at 400 million in 1300, remained in 350 million people even when the situation partially improved in 1400. This situation shows us the negative impact of Black Death on the world population. The great famine in 1316-1317 before the Black Death decreased the population of Europe, but the pressure of the overpopulation on the food resources was alleviated with the plague epidemics that started in 1346. As the population declined, there was an abundance circuit at the end of the century and people were fed better than before. The European population was 35 million at the beginning of the 11th century and 80 million at around 1300. By the 1400s, the European population was only 60 million (Pointing, 2011: 417, 420-421; Pointing, 2012: 109, 116-117, 122).

The conquest of the New World (America) by the Europeans and the decline of the indigenous population there is another important historical event to be considered on the epidemic scale. The natives died in their beds with the Eurasian-borne microbes brought by them rather than in the arms of the Europeans. Many of the locals and tribal chefs died, and the morale of the survivors collapsed, and their resistance was broken. While the Spaniards took over the Aztec Empire in Mexico in 1520, they benefited from the smallpox that killed almost half of the Aztecs from Spanish Cuba. This disease, which only killed the natives and probably did not kill the Spanish thanks to the immunity they gained, broke the morale of the Aztecs, and even questioned the religion and belief systems. By 1618, the Mexican population, which had previously been 20 million, fell to 1.6 million (Diamond, 2013: 270-271).

The end of the Inca Empire was due to epidemics as was the case with Aztecs. There were only 168 people in the suite of the Spanish Pizarro, who set foot on the Peruvian shores in 1531 to take over the Inca Empire. He could not find a serious force in front of him and easily captured Machu Picchu, known as the lost city of the Incas. There are various opinions about the sudden abandonment or evacuation of Machu Picchu. The city had not yet been discovered before the Spanish took over. This meant that it had been abandoned or forgotten long ago. Although there are theories that the city was exposed to drought for a long time, a big fire broke out or was evacuated while resisting the Spanish occupation; the main reason was smallpox. The smallpox that came to this land in 1526 killed most of the Inca population. Emperor Huayna Capac and his successor were among those who died. After the throne remained empty for some time, the fight for the throne started between the two sons of Huayna Capac, and the empire was broken and weakened. By making use of this situation, Pizarro destroyed the Incas, who were disintegrated by then and their population decreased significantly (Diamond, 2013: 271; Haught, 1999: 138).

The reason for the decrease in population in the district of Ayasuluk in the area where the famous city of Ephesus was established and the fact that it became a village consisting of several households in the 18-19 centuries is shown as the abandonment of the locals due to malaria and plague epidemics (Emecen, 1991: 227).

In the early months of 1764, almost 3/4 of the tribes belonging to the Bozulus Turkmen Community within the Karaman Province were scattered to Anatolia, Aydın, Karaman, Sivas, Ankara, Hüdavendigâr, Saruhan and Sultanönü because of *plague illness* (BOA, C. Zb, Dosya No: 33, Gömlek No: 1614, 1764: 1-2). The nomads suffering from many epidemic diseases had to experience the economic hardship of possible loss of life and property. It was obvious that an epidemic would infect their animals and destroy all their economies. For this reason, it was a reasonable attitude that the nomadic people moved away from the epidemic places to get rid of an epidemic that could infect themselves or their animals.

Its Effects on Religion and Religious Life

Epidemics became a blessing, especially in Ancient societies. In belief systems other than monotheistic religions, it is known that people invented various gods with the instinct to be protected in every field they suffer. People who were desperate about fighting illnesses accepted that there were gods related to them and believed that they would protect themselves with the offerings and sacrifices they offered to these gods.

The Hittites had a god of plague and epidemics called *Shulinkat*. A plague god is also mentioned in the epic of Gilgamesh (Gilgameş Epic, 2001: 86-87). Almost all the Egyptian gods are healing. However, some gods were the cause of epidemic diseases. God *Seth* was causing epidemics. The goddess *Sekhmet*, symbolized by the lion's head, caused a plague epidemic in particular (Bayat, 2010: 61).

The tradition or belief in sacrificing human and animal by sacrificing epidemics was also seen in the Incas and Aztecs, ancient civilizations of Central America. In times of epidemic, human beings were sacrificed instead of animals. However, the torture found in Mayans and Aztecs does not seem to have existed in the Incas. When man was sacrificed, it was important to do this perfectly (Ronan, 2003: 62).

There is a cosmic war between the good and the bad in the doomsday according to Christian faith. Four horsemen who participated in the war are; plague, war, famine, and death (Wilkinson, 2010: 99). Bible mentions about the plague in many places on various occasions; it is associated with famine and sword (war) and is depicted as the Four Horsemen of the Apocalypse (Porter, 2016: 17). Since famine, war, and plague are a wrath God sent to people, there is a prayer of Christians which says, "God protect us from famine, war and epidemic" (Davis, 2009: 194).

According to the Christian belief, the reason for the plague was divine. Swedish king Magnus II, like many other aristocrats, adopted the view of the church, saying, "God punishes the world with this sudden death for people's sins." Looking at the stars, the medieval physicians, rather astrologers, decided that God's discretion was a result of the wrong arrangement of Mars and Jupiter,

the vapors that created *bad weather* and epidemics. This bad weather concept was perceived differently among different peoples. Viennese regarded the plague as the *Plague Virgin (Pest Jungfrau)*, a blue flame that appeared on the lips of the dead. The same virgin was perceived in a different format in Lithuania and waved a red flag to infect the inhabitants. In other countries, "God's Disease" took many forms, such as blind women, disabled people, traveling Jews, and men on black horses. It was regarded as a perverse thought that a medieval commentator's objection to the thought of divine punishment, saying, "Nothing with such complicated results can be the intention of God" (Nikiforuk, 2001: 75-76).

Medieval Europeans were religious people loyal to the Christian beliefs and the Roman Catholic Church when Black Death reached Italy in 1347. They wanted to establish a more intense and more special relationship with many European Gods after Black Death. This new religious passion marked the rise in the construction of chapels independent of the church for private worship. Private chapels became popular among aristocracy that was on the descent for a long time, and the chapel building business wasn't limited to aristocrats, but also started to spread rapidly among other high-level professionals, such as traders, doctors and lawyers. Even middle-class masters participated in the private chapel craze. Medieval artisans established guilds and artisanal associations to maintain a certain standard in trade, and these professional organizations built chapels for the exclusive use of members and families in the early 14th and 15th centuries (Slavicek, 2008: 91-92). The desire to establish this chapel was since the advices of priests against the epidemic did not work. It can be said that religion and God were not questioned in the Christian world throughout the period, but a need to go directly to God without the mediation of the clergymen emerged. The attitudes of the Catholic churches in Europe, which are not based on mental illness and other issues, constituted the main basis of the Reform movement in the 16th century.

Jews, like Christians, believed that illness was sent to them by God, and they said that this disaster was sent to them as a result of their rebellion against divine orders when the plague spread (Gökhan, 1998: 75).

The approach to epidemics in the Islamic world has been shaped by the hadiths/sayings-acts and teachings in the sunnah/path of the Prophet. The prophet of Islam applied a great discipline and education to prevent the droplets of mouth or phlegm in the pandemic, as we face today, experienced in his own time, as the most important precautionary measure. Indeed, when he was going to sneeze, he would try to prevent the particles coming out of his mouth from spreading around either by covering his face with his hand or his clothes (Hadislerle İslam, 2014: 442).

According to the belief in Islam, Allah will reward those who caught deadly diseases died and died. In hadiths, it has been reported that women who died during childbirth, those who drowned, those who burned, who died from abdominal

pain and plague will be regarded as martyrs (Hadislerle İslam, 2014: 446).
In hadiths, there are three basic principles regarding the plague.

1. Since dying from the Plague is a martyr, it is a mercy from God for the Muslim and a punishment for the non-believers. For example, on Arîf Mehmed's tombstone, dated 1812 (H. 1227), an expression stating "mat'ûnenşehîd" is written (Panzac, 1997: 150).
2. A Muslim should not enter or exit any plague outbreak. It should be under the influence of these hadiths (Hadislerle İslam, 2014: 441-442, 446, 524) that the reflex of urgently leaving the sick place is less common in the Islamic world than in western societies. The hadith of the Prophet can be considered as a social isolation with today's expression. This measure acknowledged the existence of the disease and the inability to fight, but it pointed to the mind rather than a fatalistic approach.
3. The plague is not an infection. It was sent directly from God. There are thoughts that the hadith of the Prophet "There is no contagiousness in the disease" contradicts with the hadiths "run away from leprosy like a lion" and "do not let the sick camel near the sturdy camel". According to the interpretation of the hadith analyzers working on the subject, the Prophet wanted to bring the belief that the disease could happen with the permission and will of God, spontaneously, and that at least some of the diseases were not contagious (Kesgin, 2014: 117).

The main reason why these three principles became an important doctrine in Islam can be shown as the bad consequences of the recurrence of the Justinian plague in the first years of Islam (Dols M. , 1977: 444-445).

In Muslim societies, bath and bath culture was a religious obligation. For this reason, the diseases could not find a rapid spreading area caused by lack of personal hygiene. The divine prohibition of out-of-marriage sexual intercourse blocked the spread of venereal diseases such as syphilis. However, it should not be forgotten that it is not enough to follow the personal hygiene rules or to fulfill religious duties to prevent microorganisms causing diseases to be transmitted to humans. The society had to be conscious and ready for it. For this reason, global epidemics could spread easily in the Islamic world, as well. Although Egypt has been an Islamic country for many years, it has been the first starting point of many diseases. This was due to the fact that the people living on that country belonged to a geographical location which was vulnerable and open to exterior influences rather than to which religion they belonged to.

Travelers and ambassadors who visited Ottoman Istanbul noted that plague epidemics did not spoil the calm composure of the Ottoman understanding, but when the number of daily plague victims was revealed, there was a mass prayer in Okmeydanı (Tebly, 1988: 271). Another example of the tradition of praying during plague outbreaks relates to the scholar and poet, Cemâl-i Halvetî, the founder of the Cemâliyye branch of the Halvetiyye sect. II Bayezid

and Koca Mustafa Pasha invited Cemal Halvetî from Amasya to Istanbul, so Cemâl-i Halvetî became the first representative of this sect in Istanbul. While Cemâl-i Halvetî was found in his lodge in Kocamustafapaşa, he was sent to Hajj with his forty dervishes in 1494 to pray for those who suffered from plague, but he died on the road near Tabuk before reaching (Tayşi, 1993: 302).

Religion-Based Non-Religious Practices / Superstitions

Considering epidemics as a wrath of God was often not a cure for people's suffering. While the state of despair sometimes caused the formation of intellectual and non-religious fanatics, sometimes it revealed superstitions that we can describe as religion-referenced but non-religious practices. One of the most striking examples in this regard were the whippers who left a mark on medieval Europe.

A plague epidemic that emerged in 1259 caused Raniero Fasani, who was known as the hermit of Umbrevia, to spread the teachings of sacrifice, bail and martyrdom, to calm the god, protect his nafs/soul. They gathered passionate fans around them and went further and launched a walk in Northern Italy with their fans, whipping themselves as part of their teachings. They were half-naked, whipping their hands with whips, sticks and all kinds of whipping tools, whipping themselves and each other until blood came out of their bodies. This movement was a similar practice of Adamites, which emerged as a perverted movement in the year 200 and disappeared after two years (Scott, 2001: 261-262). After the 1348 plague epidemic, whippers from the radical *Flagellant* sect had reappeared and wandered across Europe (Ribard, 1974: 415).

The Catholic Church and its courts, the Inquisition, linked the Black Death and plague epidemics in 16-17th centuries with the witches, blaming black cats and cat-feeding women. Germany is known as the central country for the witch hunting. It is followed by Poland and to a minor extent by Spain. There was no witchcraft in Portugal and Ireland (Aslan Karaküçük, 2010: 46, 50).

The fact that Jews were held responsible for the appearance of Black Death and the killing of many Jews with various tortures was not necessarily the result of a blind belief that the Jews poisoned wells and spoiled the air. Those who borrowed from usury Jews killed them, thus not only soothing the angered God but also getting rid of their debts. Catholic priests personally participated in the Jewish massacre and completed the religious reference dimension of the work. In 1351, almost no Jews remained in Central Europe, and those who survived fled to Russia and Poland (Haught, 1999: 52-53; Nikiforuk, 2001: 73).

Many non-religious practices such as talisman, magic, fortune telling, and magic were other superstitions that were used to prevent and treat epidemic diseases. The Hittites used fortune telling to detect epidemics. It is possible to see an example of this in the plague prayers of II Murşili. Plague prayers were intended to persuade God to show the cause of the disease in the fortune (Alparslan, 2006: 127).

Evliya Çelebi stated that three out of twenty talismans inherited from the pre-Ottoman period in Istanbul were applied against epidemic diseases (Evliya Çelebi, 2008: 33-34). In Ottoman society, there was a belief that the house where pigeons came to nest themselves would be protected from the plague (Panzac, 1997: 161). Although this belief was non-religious, it should be related to the sacredness imposed on role of the pigeon during the Migration in Islam.

Gypsies living in Eastern Europe carried the figures they embroidered on fabric pieces and carved on wood pieces to protect them from diseases. These figures were thrown into the fire during epidemics of cholera and plague (Berger, 2000: 24).

In the later years of the Justinian plague and during the period of Emperor Mavrikos (582-602), it was observed that 6,000 Turkish prisoners of war, sent by Sassanid ruler Hüsrev to Istanbul, had cross tattoos on their foreheads made with black ink. Mavrikos asked the prisoners why they had a cross tattoo on their foreheads, and they stated that the Christians who lived between them during the plague epidemic in their homeland years ago had cross tattoos on their foreheads and that they had escaped death for this reason, so they also tried this way to protect them from plague (Akdere, 2018: 324-325). This example is striking as it indicates that people do not hesitate to practice even a superstition outside their belief systems in times of desperation.

Effects on Science, Culture, Art, and Civilization

After the epidemic disaster, which was very devastating and destructive in terms of its results, the minds of scientists focused not on the world they live in, but on death and salvation. In this context, it is necessary to evaluate plague reports or treatments written during Black Death. The science of microbiology has developed faster and continues to develop in order to detect microorganisms causing epidemics.

As the demand for luxury or other necessities increased after the outbreaks, trade and travels increased to supply the items needed from all over the world, and new vehicles were used especially in maritime transport. Better maps have been made and bold discoveries have been made after the most devastating Europe outbreak. Undoubtedly, the origins of the intellectual revival in Renaissance were also material elements (Fara, 2012: 121).

Although the discovery of America caused political and economic gains for the Old World, it can be said that it was the beginning of the end for America's indigenous people. It is hard to say that there were no epidemics until America was discovered. However, none of the known lethal global epidemics had spread from there. One of the reasons why the indigenous population in America disappeared up to 90% was epidemics transported from Europe. An advanced civilization, like the Inca civilization, has almost disappeared, local tribes have survived symbolically, and even the languages and cultures of many

have not survived. This situation can be described as a very important loss for the global cultural heritage and accumulation.

Quinine, the most important drug of malaria, came to Peru from Europe via Jesuit priests. Every year in the 19th century, millions of kilos of *cinchona* were sent to Europe, which is the raw material of quinine. While Peruvian rulers and neighboring countries forbade their seeds and seedlings to be taken out of the country, the Dutch government had illegally bought half a kilo of seeds from an Australian smuggler and made the best investment in history. In the 1930s, approximately 11 million shells per year were obtained in Dutch cultivation areas on Java Island; this corresponded to 97% of world quinine production (Conner, 2013: 105).

If isolated in a suitable place, epidemic times could turn into "opportunity times" for scientists. When the university in Cambridge was closed during the plague epidemic of England in 1665, the famous scientist Newton went to his mother's home in Woolsthrope, where he had the most productive period of his scientific life (Ronan, 2003: 387-388).

The 1348 plague epidemic also influenced the literature of medieval Europe. During the plague epidemic, Geoffrey Chaucer, who was probably a child and wrote the famous "Canterbury Tales", was entertainingly constructed on the low moral standards of the Catholic clerics whom he mocked as tales of money collectors. The most important work that Black Death brought to world literature was Boccaccio's *Decameron*, who lost many friends and families during illness. This work was about a chilling account of the plague in Florence. The work consists of a collection of humorous, often obscene tales, of ten young Florentine nobles fleeing the plague. Other writers, contemporary of these two authors, were more melancholic and pessimistic, unlike them. Eustace Deschamps (1340? -1404), the famous French writer of the period, depicted the plague with a gloomy narrative (Slavicek, 2008: 103).

The effect of epidemic diseases on the literary life of society has also manifested itself on laments, jokes, legends, and poems. It is possible to find examples in this regard in the literary texts of all countries. Black Death has influenced all segments of the society and art has got its share. Effective artists and talented masters were killed. It also collapsed the schools that worked on the same style and theme, as well as killing famous sculptors, painters, and stonemason guilds. It was very difficult to raise talented people to take the place of these artists and masters. Indeed, after the outbreaks, those generously decorated cathedrals of medieval architecture were replaced by plain and flat plates (Slavicek, 2008: 98-99).

Famous music master Abdulkadir Merağî, poet Fuzuli, Fost, the founder of the printing house, and French political philosopher Bodin Jean all died from the plague. While composer Hamâmîzâde İsmail Dede Efendi died from cholera, the famous composer and violin virtuoso Paganini, composer Chopin, writers

Jean Jacques Rousseau, Schiller, Goethe, Chekhov and George Orwell are just a few of the famous artists and scientists who lost their lives from tuberculosis (Kılıç, 2004: 129-141).

As the plague continued its existence and lethality, the original Gothic images of the Late Middle Ages were replaced by images of terrible ogres. Examples could be listed as spooky Hell and Satan images, the death dance, the Four Horsemen of the Apocalypse, the image of the Grim Reaper in the form of a scythe and skeleton. In fact, with superstitions, victims were sought to be held responsible for the plague. People who were in despair believed that they should take God's heart (Porter, 2016: 26). It can be said that this belief is the provocative element of the cat and witch hunt, the Flagellant stream, and the killing of Jews.

After the second plague pandemic, *death* became the most important theme and figure of art. Dozens of paintings, engravings, and sculptures from the time of Black Death were a compelling indicator of people's psychological responses to this shock. European art has emphasized death for a long time and especially its most horrible and terrifying aspects. Skeleton figures and decaying cadavers, equipped with swords and sickles, were depicted to cover people of all classes. While Europeans commissioned sculptors to decorate their graves before Black Death, at the end of the 14th century, new graves depicted the decay of corpses in detail. In addition, two Catholic saints, St Sebastian, and St Roch, were seen across Europe as saints who protect people from plague. Medieval paintings typically depicted St Roch with a dog and a big cucumber (bubo) on his thigh (Slavicek, 2008: 99-102).

Conclusion

As a requirement of his innate feelings, man has desired to live safely in every period of history, to feed his stomach and to continue his generation. One of the most important factors that threaten these three basic demands of the human being is epidemic diseases. In this regard, people have had to fight epidemic diseases throughout history.

We can say that plague, cholera, flu, malaria, flower, yellow fever, typhoid, typhus, measles, syphilis, and tuberculosis are epidemic diseases that cause large-scale human deaths throughout the history of humankind. Among these, plague, cholera, and influenza demonstrated pandemic spread many times during the ancient times. Plague and cholera lost their menacing character before the 20th century. This is not the case with the flu pandemic. Pandemic flu outbreaks continue to occur with different types at different times.

The most thrilling and frightening part of epidemic diseases in history is that their nature, sources, and treatments were not known. This frightening aspect continues today as the viruses that cause the disease are constantly mutated, and each time they face humanity differently. Therefore people have been

forced to fight an invisible enemy that they could only observe its existence from the destruction it has created, thus being unaware of it for a long time. This state of uncertainty and being helpless in the face of the disease has caused it to gain a holy nature thus being considered as a god or goddess in societies with multi-god religions. In Christian societies, it was sometimes considered one of the Four Horsemen of the Apocalypse, who was involved in the battle of good and evil, in Doomsday, sometimes as a misfortune of God caused by a Jew, and sometimes as a sinister of a cat or witch. The Islamic world, on the other hand, believed that the epidemic came from Allah, but preferred a more rationalist realistic way than the conditions of its era, such as social isolation. The conviction that people who died from the epidemic would be regarded as martyrs increased the holy nature of the disease, causing it to be perceived as a reward rather than a misfortune.

Regardless of the belief system, geography or society, the only real thing is that there is no way to get rid of this insidious enemy without knowing the disease, knowing its origin, learning the methods of diagnosis, treatment, and prevention. When people realized this, they were able to ground the fight against epidemics to a more rational line.

The absence of the plague after England in 1665 was achieved by the massive death of the fleas that spread the plague germ and its carrier mice during the 1666 major fire. The disease was brought under control when new buildings were started to be built in such a way that this pest did not live comfortably. It was understood that the cholera microbe passed on to people with dirty drinking water and spoiled food, so developed countries and conscious societies were able to get rid of cholera. The disease was no longer a global threat when malaria was understood to be a scourge of stagnant waters and mosquitoes and the drug was found and the marshes were dried. The source of smallpox was determined, and people gained immunity thanks to traditional vaccine applications and this lethal disease did not show a pandemic spread in history. People have understood in the past and today by paying a heavy toll that the mystical and magical ways created in their belief systems are no longer useful to get rid of the epidemic. It is for this reason that there was distrust in the Christian world against church members who recommended irrational ways to get rid of the epidemic and preferred to pray directly to God. The Catholic Church paid for the deviation of moral and non-religious ways to prevent epidemics with the start of reform movements.

Although the quarantine applications, microbiological, virological, pharmacological developments and vaccines make people more advantageous in many diseases, the possibility of a new virus or bacteria that will suddenly appear and produce pandemic outbreaks causing mass deaths will ever continue to exist.

If we take a retrospective outlook for today by making use of our experience throughout history, we can say that the world has changed in many ways after

each epidemic. Plague epidemics recurring after the plague of Justinian, which started in 542, led to the realization that diseases were contagious in the first years of Islam. After the plague epidemic of 1346-1352, the non-religious practices of the Catholic Church members in Europe started to be questioned and the Reform movements started when the same practices continued in the ongoing process.

The Aztec and Inca societies, which are the indigenous elements of America, compared the religion and gods of the Spanish or Portuguese people who came with little military power and occupied their lands in the beginning of the 16th century with their gods because of the smallpox that infect them but did not infect their enemies. European societies grasped the importance of hygiene by paying a heavy toll. Malaria and plague dictated living in healthy environmental conditions, consuming healthy and clean foods for cholera, people, and the benefits of institutional quarantine practices.

Epidemics have left such deep traces in society and human life that there are so many songs, dances, poems, novels, legends, jokes, and laments that have been fictionalized, written, stolen and sung with epidemic patterns. Perhaps the pandemic flu epidemic experienced today will end with a few more attacks. However, it should not be forgotten that the experiences and the events we have faced throughout history will change in accordance with today's conditions and manifest themselves in many areas.

References

Akdere, M. (2018). Bizans Tarihi Kaynaklarına Göre VI. ve X. Yüzyıllarda İstanbul'da Görülen Veba Salgınları. *Tarih Okulu, 11*(XXXV), 314-343. DOI: 10.14225/Joh1346

Ali ibn Ridwan. (1984). *Medieval İslamic Medicine İbn Ridwan's Treatise "On the Prevention of Bodily Ills in Egypt"*. Calfornia: Comporative Studies of Health Systems and Medical Care University of California Press.

Alparslan, M. (2006). *II. Murşili ve Dönemi*. İstanbul: Istanbul University PhD Thesis.

Altun, C. (1996). *Hicri Birinci Yüzyılda Mekke Şehri*. Elazığ: Fırat University MA Thesis.

Arık, F. Ş. (1990-1991). Selçuklular Zamanında Anadolu'da Veba Salgınları. *Tarih Araştırmaları Dergisi, XV*(26), 27-57.

Aslan Karaküçük, S. (2010). Korkunun Kadınları: Cadılar ve Cadıcılık. *Türkiye Sosyoloji Araştırmaları Dergisi, 13*(2).

Bauer, S. W. (2006). *Batı Biliminin Öyküsü.* İstanbul: Alfa.

Bauer, S. W. (2013). *Antik Dünya.* İstanbul: Alfa.

Bauer, S. W. (2014a). *Dünya Tarihi* (v. 2). İstanbul: Say.

Bauer, S. W. (2014b). *Rünesans Dünyası.* İstanbul: Alfa.

Bauer, S. W. (2015). *Dünya Tarihi* (v. 3). İstanbul: Say.

Bayat, A. (2010). *Tıp Tarihi* (2e). İstanbul: Merkezefendi Geleneksel Tıp Merkezi.

Berger, H. (2000). *Çingene Mitolojisi.* Ankara: Ayraç.

BOA, C. Zb, Dosya No: 33, Gömlek No: 1614. (1764, February 20).

BOA, MD 23. (1573).

Braudel, F. (1989). *Akdeniz ve Akdeniz Dünyası.* Ankara: Eren.

Conner, C. D. (2013). *Halkın Bilim Tarihi Madenciler, Ebeler ve "Basit Tamirciler"* (3e). Ankara: TÜBİTAK.

Davis, J. (2009). *Taş Devrinden Bugüne İnsanın Hikâyesi* (4e). (B. Bıçakçı, Çev.) İstanbul: Türkiye İş Bankası.

Defoe, D. (1896). *A Journal of the Plague Year 1665*. (George Rice Carpenter, Dü.) Londra&Bombay: New York Longmans, Green and Co.

Diakov, V. (2014). *İlkçağ Tarihi Ortadoğu* (3e, v. 1). İstanbul: Yordam Kitap.

Diamond, J. (2013). *Tüfek, Mikrop ve Çelik* (25e). Ankara: TÜBİTAK.

Dinçol, A. M. (1985). Ashella Rituali (CTH 394) ve Hititlerde Salgın Hastalıklara Karşı Yapılan Majik İşlemlere Toplu Bir Bakış. *Belleten, XLIV,* (193).

Dols, M. (1977). İbn al-Wardi's Risâlh al-Naba'an al-Waba, A Translation of a Major Source for the History of the Black Death in the Middle East. *Near Eastern Numismatics, Iconography, Epigraphy and History: Studies in Honor of George C. Miles* (443-455). Beirut: American University of Beirut.

Dols, M. (1979a). *The Black Death in the Middle East* (2e). Princeton.

Dols, M. (1979b). The Second Plague Pandemic and Its Recurrences in the Middle East 1347-1894. *Journal of the Social History of Orient,* (22), 162-189.

Dunham, C. (1866). *Cholera.* New York: John T.S. Smith & Sons.

Emecen, F. (1991). Ayasuluk. *Türkiye Diyanet Vakfı İslam Ansiklopedisi* (v. 4, p. 225-227). İstanbul: Türkiye Diyanet Vakfı.

Erdemir, A. D. (2018). Türk Tıp Tarihinde Ünlü Türk Hekimi İbni Sina'nın Tıbbi Tedaviler Üzerinde Yorumlamaları. *Türk Dünyası Araştırmaları, 118*(232), 189-210.

Eşref bin Muhammed. (1961). *Hazâ'inü's-Saâ'dat 1460 (H. 864).* (B. N. Şehsuvaroğlu, Dü.) Ankara: Türk Tarih Kurumu.

Eutropius. (2007). *Roma Tarihinin Özeti.* İstanbul: Kabalcı.

Evliya Çelebi. (2008). *Günümüz Türkçesiyle Evliya Çelebi Seyahatnâmesi* (v.1/1). İstanbul: Yapı Kredi.

Fara, P. (2012). *Bilim, Dört Bin Yıllık Tarih.* İstanbul: Metis.

Ferro, M. (2002). *Fetihlerden Bağımsızlık Hareketlerine Sömürgecilik Tarihi, 13. Yüzyıl-20. Yüzyıl.* Ankara: İmge Kitabevi.

Flinn, M. W. (1987). Avrupa ve Akdeniz Ülkelerinde Veba. *Tarih ve Toplum,* (39), 26-28.

Freeman, C. (2003). *Mısır, Yunan ve Roma Antik Akdeniz Uygarlıkları.* Ankara: Dost Kitabevi.

General Board of Health. (1850). *Report of the General Board of Health on the Epidemic Cholera of 1848-1849.* London: W.Clowes&Sons.

Gilgameş Destanı. (2001). (M. Ramazanoğlu, trans.) Ankara: Milli Eğitim Bakanlığı.

Gökhan, İ. (1998). *XIII. ve XIV. Yüzyıllarda Mısır ve Suriye'de Krizler, Kıtlıklar ve Vebalar.* Elazığ: Fırat University PhD Thesis.

Görmez, M. (2014). *Hadislerle İslam* (v. 7). Ankara: Diyanet İşleri Başkanlığı.

Grieco, F. (2005). Vücut, Görünüş ve Cinsellik. *Kadınların Tarihi*. İstanbul: Türkiye İş Bankası.

Haught, J. (1999). *Kutsal Dehşet Dinsel Cinayetler Tarihi.* İstanbul: Aykırı.

Hecker, J. (1859). *The Epidemics of the Middle Ages.* London: Trübner and co.

Hurton, A. (1995). *Güzel Kokuların Tarihi.* İstanbul: Kabalcı.

İbn Mace. (no date). *Sünen-i İbn Mâce*. https://archive.org/details/SunenIIbnMaceIbnMace/page/n2223/mode/2up [24.04.2020].

İbni Haldun. (1954). *Mukaddime* (v. II). İstanbul: Maarif Vekâleti.

Kahya, E. (1998). Hipokrat. *Türkiye Diyanet Vakfı İslâm Ansiklopedisi* (v.18, p. 119-121). İstanbul: Türkiye Diyanet Vakfı.

Kesgin, S. (2014). "(Hastalıkta) Bulaşıcılık Yoktur" Hadisinin İsnad ve Metin Açısından Tahlili. *Hitit Üniversitesi İlahiyat Fakültesi Dergisi, 13*(26), 83-120.

Kılıç, O. (2004). *Eskiçağdan Yakınçağa Genel Hatlarıyla Dünyada ve Osmanlı Devleti'nde Salgın Hastalıklar*. Elazığ: Fırat University.

Kılıç, O. (2016). 16-18. Yüzyıllarda Balkan Şehirlerinde Yaşanan Veba Salgınları ve Sosyo-Ekonomik Etkileri. *Osmanlı Dönemi Balkan Şehirleri* (v. III, p. 1181-1209). Ankara: Gece Kitaplığı.

Kılıç, O. (2017). Orta ve Yeniçağlarda Salgın Hastalıklar Göç ve İskân, *Geçmişten Günümüze Göç* (v. 2, p. 371-384). Samsun: Canik Belediyesi.

Kılıç, O. (2019). M. Öztürk (Dü.) içinde, *Üçüncü İktisat Tarihi Kongresi Bildirileri, İzmir/25-27 Nisan 2019* (v. 1, p. 371-384). İzmir: İzmir Demokrasi Üniversitesi.

Koç, İ. (Dü.). (2006). *Hititler*. Ankara: ODTÜ Geliştirme Vakfı Yayıncılık ve İletişim A.Ş.

Kur'an-ı Kerîm. (tarih yok). *Bakara/243*.

Lowry, H. W. (2003). Pushing the Stone Uphill: The Impact of Bubonic Plague on Ottoman Urban Society in the Feteenth and Sixteenth Centuries. *Osmanlı Araştırmaları, XXIII*, 93-132.

Macpherson, J. (1872). *Anallas of Cholera: From The Earliest Periods to the Year 1817*. London: Benken and Co, Durry House.

Mansel, A. M. (1995). *Ege ve Yunan Tarihi* (6e). Ankara: Türk Tarih Kurumu.

Minios, G. (2008). *İntiharın Tarihi İstemli Ölüm Karşısında Batı Toplumu*. Ankara: Dost Kitabevi.

Montanari, M. (1995). *Avrupa'da Yemeğin Tarihi*. İstanbul: Afa.

Montaqu, L. (2004). *Doğu Mektupları*. İstanbul: Ark.

Morris, D. (1999). *Koruyucu Tılsımlar*. İstanbul: İnkılâb.

Mumford, L. (2007). *Tarih Boyunca Kent*. İstanbul: Ayrıntı.

Nâimâ Mustafa Efendi. (2007). *Târih-i Nâimâ* (v. IV). Ankara: Türk Tarih Kurumu.

Nikiforuk, A. (2001). *Mahşerin Dördüncü Atlısı* (2e). İstanbul: İletişim.

Panzac, D. (1997). *Osmanlı İmparatorluğu'nda Veba 1700-1850*. İstanbul: Tarih Vakfı Yurt Yayınları.

Payne, J. F. (1889). *Plague Ancient and Modern or the Black Death and the Sweating Sikness*. London: Adlard and Son.

Pointing, C. (2011). *Yeni Bir Bakış Açısıyla Dünya Tarihi*. İstanbul: Alfa.

Pointing, C. (2012). *Dünyanın Yeşil Tarihi Çevre ve Büyük Uygarlıkların Çöküşü* (3e). İstanbul: Sabancı Üniversitesi.

Pollitzer, R. (1954). Cholera Studies. *Bulletin of the World Health Organization, 10*(3), 421-461. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2542143/ [15.05.2020].

Porter, R. (2016). *Ken Revan İçinde Tıbbın Kısa Tarihi*. İstanbul: Metis.

Ribard, A. (1974). *İnsanlığın Tarihi* (v. I). İstanbul: May.

Ronan, C. A. (2003). *Bilim Tarihi Dünya Kültürlerinde Bilimin Tarihi ve Gelişmesi* (3e). Ankara: TÜBİTAK.

Ronciére, C. d. (2006). Diğer Özel Dayanışmalar-Özel Hayatın Dış Dünya Karşısında Mahremiyeti. *Özel Hayatın Tarihi* (v. 2). İstanbul: Yapı Kredi Yayınları.

Runciman, S. (1989). *Haçlı Seferleri Tarihi* (2e). Ankara: Türk Tarih Kurumu.

Sahillioğlu, H. (1991). Antakya. *Türkiye Diyanet Vakfı İslâm Ansiklopedisi* (p. 228-232). İstanbul: Türkiye Diyanet Vakfı.

Sarıyıldız, G. (2001). XIX. Yüzyılda Osmanlı İmparatorluğu'nda Kolera Salgını. *Tarih Boyunca Anadolu'da Doğal Afetler ve Deprem Semineri 22-23 Mayıs 2000 Bildiriler* (p. 309-319). İstanbul: İstanbul University.

Scott, G. R. (2001). *İşkencenin Tarihi*. Ankara: Dost Kitabevi.

Sezgin, F. (2015). *İslam'da Bilim ve Teknik* (3e, v. I). Ankara: Türkiye Bilimler Akademisi.

Slavicek, L. C. (2008). *The Black Death*. New York: Chelsea House.

Subaşı, Ö. (2005). XI. Yüzyılda Anadolu'da Meydana Gelen Doğal Afetler. *Türkiyat Araştırmaları Enstitüsü Dergisi,* (54), 505-535.

Sydenstricker, E. M. (1920). *Difficulties in Computing Civil Death Rates for 1918.* Washington: Treasury Department United States Public Health Service.

Taberî. (1991). *Milletler ve Hükümdarlar Tarihi* (v. II). İstanbul: Milli Eğitim Bakanlığ.

Tannahill, R. (2003). *Tarihte Cinsellik.* Ankara: Dost Kitabevi.

Tayşi, M. S. (1993). Cemâl-i Halvetî. *Türkiye Diyanet Vakfı İslâm Ansiklopedisi* (v. 7, p. 302-303). İstanbul: Türkiye Diyanet Vakfı.

Tebly, K. (1988). *Dersaadet'te Avusturya Sefirleri.* Ankara: Ministry of Culture and Tourism.

Tekin, O. (1998). *Eski Yunan Tarihi* (2e). İstanbul: İletişim.

Temel, M. K. (2015). *Gelmiş Geçmiş En Büyük Katil: 1918 İspanyol Gribi.* İstanbul: Betim.

Varlık, N. (2015). İstanbul'da Veba Salgınları, *Antik Çağ'dan XXI. Yüzyıla Büyük İstanbul Tarihi-Toplum* (p. 146-151). İstanbul: İBB Kültür A.Ş.&İSAM.

Varlık, N. (2017). *Akdeniz Dünyasında ve Osmanlılar'da Veba 1347-1600.* İstanbul: Kitap.

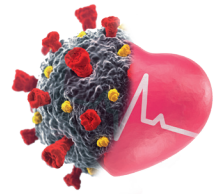
Wilkinson, P. (2010). *Kökenleri ve Anlamlarıyla Efsaneler ve Mitler.* İstanbul: Alfa.

Yıldırım, N. (2020). İstanbul'un Kolera ile Tanışması: 1831 salgını. *Toplumsal Tarih,* (316), 62-66.

Yolun, M. (2012). *İspanyol Gribinin Dünya ve Osmanlı Devleti Üzerindeki Etkileri.* Adıyaman: Adıyaman University MA Thesis.

World Health Organization - WHO. (2020a). *Cholera*: https://www.who.int/health-topics/cholera [20.05.2020]

World Health Organization - WHO. (2020b). *Cholera*: https://www.who.int/news-room/fact-sheets/detail/cholera [20.05.2020]



Outbreak Control and Preparatory Actions in the New Normal Period

Recep Öztürk

Prof. Recep Öztürk

Prof. Recep Öztürk graduated from Istanbul University (IU) Cerrahpasa School of Medicine in 1984 and did his specialty training in Infectious Disease and Clinical Microbiology at same university. He was awarded the titles of Associate Professor in 1994 and Professor in 2000. He served as the member of the Council of Higher Education (CoHE) between 2009-2013 and the member and vice chairman of the Council of Medical Specialty (TUK) between 2011-2015. He is the member of the National Infection Prevention and Control Committee, the Advisory Committee for Immunization, the Scientific Advisory Committee for Flu and the Scientific Committee for Coronavirus of the Ministry of Health of Turkey. His primary occupational fields are healthcare related infections, infectious diarrhea, laboratory diagnosis of infectious diseases and quality and accreditation in higher education. Currently, Prof. Özturk is the Head of Infectious Disease and Clinical Microbiology Department at the School of Medicine of Istanbul Medipol University and the Coordinator of the University Quality Committee.

Outbreak Control and Preparatory Actions in the New Normal Period[1]

Recep Öztürk
Istanbul Medipol University
rozturk@medipoledu.tr

Abstract
Persisting worldwide, the COVID-19 pandemic results not only in major public health concerns, but also in several social and industrial issues in economy, labor, education and many other fields. In this context, the epidemic continues to take a negative hold. Due to, amongst others, the increasing and aging population, improper urbanization, irregularities in income distribution worldwide, increased resistance to antimicrobial agents, global warming and climate changes, intrusive approaches to wildlife, the epidemiology of infections is undergoing a worldwide change and new infectious diseases are emerging, some of which pose a threat of outbreak, even pandemic. Therefore, different policies should be adopted against outbreaks both on a national and global scale.

An "Institute of Infectious Diseases and Epidemics" should be established very urgently within TUSEB (Directorate of Health Institutes of Turkey). Actions that attach importance to the understanding of "Singular Health" should be taken throughout the country. The efforts to take structural measures that will work in case of epidemics, to raise qualified manpower in medicine and to achieve the required capacity of vaccine and drug production along with rapid diagnosis and advanced analysis in epidemic situations should be maintained consistently. During the outbreak, further actions should be taken for potential issues in social life, economy, labor, education, agriculture and other fields. To achieve these goals, specific policies should be set, and an advanced cooperation should be established between the World Health Organization and other concerned international organizations by ensuring the integrated operation of institutions within the country.

Keywords
COVID-19 pandemic, combating pandemic diseases, pandemic preparation policies

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Persisting worldwide, the COVID-19 pandemic results not only in major public health concerns, but also in several social and industrial issues in economy, labor, education, and many other fields. In this context, the epidemic continues to take a negative hold. Due to, amongst others, the increasing and aging population, improper urbanization, irregularities in income distribution worldwide, increased resistance to antimicrobial agents, global warming and climate changes, intrusive approaches to wildlife, the epidemiology of infections is undergoing a worldwide change and new infectious diseases are emerging, some of which pose a threat of outbreak, even pandemic. Therefore, different policies should be adopted against outbreaks both on a national and global scale.

An "Institute for Infectious Diseases and Epidemics" should be established very urgently within TUSEB (Directorate of Health Institutes of Turkey). Actions that attach importance to the "One Health" approach should be taken throughout the country. The efforts to take structural measures that will work in case of epidemics, to raise qualified manpower in medicine and to achieve the required capacity of vaccine and drug production along with rapid diagnosis and advanced analysis in epidemic situations should be maintained consistently. During the outbreak, further actions should be taken for potential issues in social life, economy, labor, education, agriculture, and other fields. To achieve these goals, specific policies should be set, and an advanced cooperation should be established between the World Health Organization and other concerned international organizations by ensuring the integrated operation of institutions within the country. Infectious diseases have always posed, are posing and will continue to pose a problem for humanity. The COVID-19 pandemic is the last example of this.

COVID-19 is an infectious disease induced by SARS-CoV-2, which has today resulted not only in major public health concerns worldwide, but also in several

social issues in many fields (economy, education labor) (Huang, Wang, Li, Ren L, Zhao, Hu Y et al. (2020).

On December 31, 2019, China reported some cases of respiratory diseases with unknown causes present in Wuhan of Hubei Province to the World Health Organization (WHO). WHO announced on January 7, 2020 that the disease causative agent was a novel coronavirus, and initially named it 2019-nCoV. On January 9, 2020, the Chinese scientists identified the virus (Zhu, Zhang, Wang, Xingwang, Yang, Song (2020). The virus was later named SARS-CoV-2, and the disease COVID-19. On January 11, the disease turned into an epidemic and the first death was reported. WHO declared this outbreak a Public Health Emergency of International Concern on January 30, 2020 (Baek, Sohn, Mahgoub, Hage (2020); WHO, Rolling updates on coronavirus disease (COVID-19, 2020).

The disease spread all over the world in two months, and the World Health Organization (WHO) declared this event a pandemic on March 11, 2020 (WHO, Rolling updates on coronavirus disease (COVID-19, 2020).

In our country, the Ministry of Health started to act against this epidemic very early and established a scientific committee two months before WHO's declaration of pandemic on January 10, 2020. In addition, the Ministry provided the necessary facilities for the committee to operate properly.

The national pandemic plan that is updated annually on a national scale due to the flu was updated with the necessary preparations in place at the provincial level, which has been one of the cornerstones of achieving preparedness for the outbreak (Turkish Ministry of Health, National Preparedness Plan for Pandemic Influenza, 2019).

Today, COVID-19 cases worldwide have exceeded seven million, with the associated deaths more than 400 thousand (World Health Organization. Coronavirus disease (COVID-19) Situation Report – 145, 2020; Worldmeter. COVID-19 Coronavirus Pandemic, 2020).

Virus was understood to be transmitted from one person to another by droplets or contact or, in some specific cases (in procedures generating aerosols), by airborne means. In addition to intrafamilial transmission, the critical ways of transmission are related to public places, social relationships, and infected healthcare professionals (Zhai, Ding, Wu, Long, Zhong, Li, 2020).

The infiltration of the outbreak was delayed through the proactive measures taken on a national scale; congestion in hospitals was avoided by providing quality healthcare services as enabled by the cases identified through effective contact tracing as well as by successful hospital management; and Turkey managed to be one of the countries with a low case fatality rate (2.8%) thanks to effective and early therapies (Turkish Ministry of Health, Latest situation in

Turkey, 2020). During the process, quality healthcare services were maintained without congestion in hospital services.

Having demonstrated a fast and effective management by taking into consideration the suggestions of the scientific committee, The Ministry of Health provided continued coordination with the relevant governmental bodies and managed to handle the process effectively and efficiently by informing the public regularly. Healthcare professionals who worked devotedly with a team mentality during the pandemic play a great role in this achievement. Considering the examples in the world in this process, the relatively low rate of disease transmission to healthcare professionals is another aspect achieved by our country.

The outbreak affected and continues to affect communities and various industries in our country and the world. COVID-19 took hold of the world widely with devastating consequences for national health systems and the global economy, where the aftershocks of this impact will become more apparent over time. Since the efforts in healthcare delivery are necessarily driven by the outbreak, adverse effects on the health of patients other than those who need immediate care will be identified in more detail over time. This process reveals the need for studies on how negatively oncological diseases and other chronic diseases (diabetes, hypertension, chronic lung/heart/liver/kidney diseases, rheumatologic diseases and specific hosts (immunosuppressed patients), which require regular monitoring, are affected. Additionally, the exposure of the primary healthcare services to such effects is another important aspect that should be investigated.

Apart from health issues (associated with physical inactivity) resulting from isolation and quarantine measures taken in the process, social and psychological effects are the other objects of research. The immobilization resulting from hospitalization and bed rest and the physical inactivity caused by continued quarantine and social distancing pose the risk of adversely affecting the immune system, which provides resistance to infection, and respiratory, cardiovascular and musculoskeletal systems and the brain and other systems (Woods et al., 2020).

Apart from the medical field, COVID-19 has very considerable impacts at all levels from education to public and private sectors and economy. Telecommuting and rotating work that will deeply affect working procedures in the public and private sectors and distance learning, including grading, in education, are some of the most key aspects exposed to modifications and issues during the outbreak.

Additionally, the effects of restricting international and national travels, shutting down borders, closing down schools and businesses and social and cultural establishments and ultimately home quarantining half of the world's population seasonally and for a specific long time (months in China) are important.

There have been considerable exposures at the national and global level, including those not mentioned above. The outbreak still persists in our country and worldwide, and approximately 100 thousand cases are seen every day (Worldmeter, 2020; Johns Hopkins University - JHU, 2020). Amongst others, Russia, Brazil, India, Peru, and Chile are the countries where patients continue to increase in number. In case of failure to make available an effective vaccine and/or highly effective antivirals or if the virus is not mutated considerably with weakened virulence, the impacts of the outbreak are presumed to continue for a further 1-2 years. Even if the COVID-19 outbreak is eliminated, the world is under the threat of other outbreaks/pandemics.

Above all, the "changing epidemiology of infectious diseases", which started to be noticeable many years ago and which we tried to put on the agenda of our country, includes different factors that will foster new outbreaks (Özturk, 2008; 2009).

Some of the different types of infectious diseases (plague, malaria, tuberculosis, cholera, typhus, etc.) that severely affected civilizations and even caused their downfall are still important today. In the early 1900s, over 50 percent of deaths in the world were linked to infections, and tuberculosis, pneumonia and diarrhea alone caused about 30 percent of all deaths. Infections could be reduced especially in the developed countries due to the increasing number of antibiotics that were used since the 1940s, the diversification of antiparasitic, antifungals and antivirals over time and their expanding spectrum, better accommodation and nutritional conditions becoming widespread, increased safe food and water facilities, the possibility of immunization against different diseases, and measures such as improved hygiene and sanitation, where some of these infections could be eradicated (Cohen, 2000; Özturk, 2009).

In consequence of the confidence generated by this success, infections appeared to follow an upward trend due to the decreasing interest in infections, the issue of increasing resistance against antimicrobials, the less importance attached by the industry to the development of antimicrobial agents (especially due to the improved resistance), the reduction/pollution of water resources, interrupted food safety chain, global warming and climate change, etc. (Cohen, 2000; Özturk, 2009; Özturk & Şen, 2017; Rossati, 2017).

Based on WHO's data, infections still account for 20-25 percent (12-13 million/year) of death causes worldwide regardless of major advances in diagnosis, therapy, and protection. The most common causes of death are pneumonia (3.5 million), AIDS (1.5 million), diarrheal diseases (1.5 million), tuberculosis (1.5 million) and malaria (0.6 million) (Özturk, 2009). For the COVID-19 pandemic, the number of deaths in laboratory-verified cases alone exceeded 400 thousand (Worldmeter, 2020).

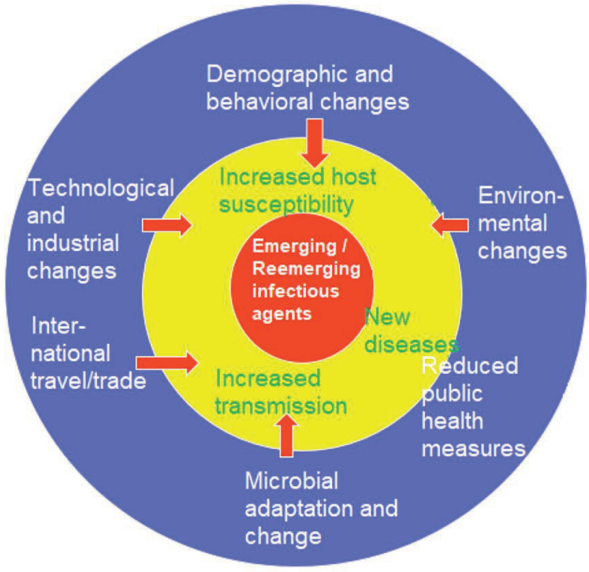
The emergence of measles outbreaks and associated deaths in several countries where vaccine hesitancy is effective is another major threat to public health (WHO, More than 140,000 die from measles as cases surge worldwide, 2019).

Legionnaires' disease, Lyme disease, *Escherichia coli* O157: H7-induced hemolytic uremic syndrome, *Vibrio cholerae* O139-induced cholera, human immunodeficiency virus (HIV) infection/AIDS, hepatitis C, hepatitis E, *Cryptosporidium* and *Cyclospora* infection, mad cow disease (bovine spongiform encephalopathy (BSE) / "variant" Creutzfeldt-Jakob disease), Nipah virus, hanta virus, different hemorrhagic fever (Crimean-Congo hemorrhagic fever in our country), Dengue fever, Chikungunya fever, SARS, bird flu, MERS-Coronavirus, Ebola disease and Zika fever are the first things that come to mind among other new agents or infectious diseases. It is not yet known exactly how effective the SARS-CoV-2 infection will be. Besides the emergence of these new diseases, the recent exposure to old diseases, such as tuberculosis and classical cholera (in South America and Africa), witnessed at a considerable level draws attention to the changes in human ecology (Özturk, 2008; 2009; Keshvardoost et al., 2020).

The epidemiology of infectious diseases undergoes some changes for several reasons; the infectious etiology of some critical diseases is discovered, and new agents and infections are identified or some of the infectious diseases that have ceased to be significant are gaining prominence again. Infectious diseases pose a threat even to the developed countries that managed to eradicate some infections and reduce others significantly (Özturk, 2009).

The pandemic potential inherent in some of these infections, as in the case of COVID-19, entails being always prepared and equipped against infections across the world. Community- and hospital-induced infections change epidemiologically and give rise to new problems due to the increasing aging population, increasing large cities (crowded life, poor health care), global climate change, increased level of international travel, global production and distribution of food and food products, migration, wars and other disasters, increase in invasive medical practice and prosthesis use, increase in transplantation practices, adaptation of and changes in microbes (changes resulting from mutation), proliferation of antimicrobial-resistant microbes and pesticide-resistant vectors, substantial alterations in human behavior (unsafe sexual intercourse and sexual behavior changes, alcohol and intravenous drug dependence), attempts (hunting for different purposes, using as food, making use of different products, etc.) intended for the groups of different wild animals (primates, bats and rodents, etc.), biological epidemiological changes and new problems occur in community and hospital-acquired infections due to attempts for rodents and etc. (for different purposes: hunting as food, using different products...), biological terrorist threat, etc., and it is feared that these problems will reach dimensions that threaten public health at an uncontrollable level (Özturk, 2008; 2009; Butler, 2012; McMichael, 2015; Wu et al., 2016; Öztürk & Şen, 2017) (Figure 1).

Figure 1. Major causes of the changing epidemiology of infections



Source: *(Öztürk, 2008)*

In fact, a fear exists that smallpox which was eradicated from the world may again threaten the world in the context of the bioterrorist threat (Öztürk 2009). WHO warned that infectious diseases are now spreading faster than before (Öztürk, 2009).

Infections are rapidly changing in terms of scope, location, and frequency; human and animal movements and travels and migrations result in the rapid spread of this change to the world (Öztürk, 2009). In fact, countries started to restrict travels as initial measures, followed by the closure of national borders high on the agenda, due to the considerable impact of international travels and relations on the COVID-19 pandemic. Likewise, our country took similar measures early.

In this regard, it is required to make the necessary policies at national and global level, to take strict measures in several aspects and to promote research projects and innovative studies since infectious diseases have the potential to persist increasingly in the community and healthcare institutions and even to result in major outbreaks and pandemics, as seen in the case of COVID-19 today (Öztürk, 2009; Igoe & Chadwick, 2020).

What to Do Against the Outbreak and Other Common Infections

The COVID-19 pandemic, which has been effective for about 6 months, demonstrated that public health is potentially under a global threat of infectious diseases. For the reasons discussed above, the changing epidemiology of

infections amplifies the risk of epidemics increasing and some outbreaks turning into pandemics. Therefore, countries should attach importance to the fight against epidemics in their national policies, and the countries of the world should enhance and intensify the mechanisms to ensure sustained cooperation to combat the globalized issue of infectious diseases (antimicrobial resistance, healthcare-associated infections, pandemics, etc.).

To that end, we will summarize the policies to combat outbreaks in the short, medium, and long term and the suggested actions to implement these policies, under several topics below.

Above all, the policies to be set in consideration of the multi-faceted and widespread impacts of outbreaks throughout the country and even the effect of health, which is becoming strategically more important in the international arena, on relations should be treated at the highest level by the national government and should be based on between the concerned institutions.

Establishment of "Institute for Infectious Diseases and Epidemics"

An "Institute for Infectious Diseases and Epidemics" should be founded very urgently within TUSEB (Directorate of Health Institutes of Turkey) which was established in our country.

The institute to be established should have advanced reference laboratories equipped with appropriate physical infrastructure and modern instruments and equipment and bring together the most competent scientists and researchers of the country in a multidisciplinary composition. Molecular microbiologists, virologists, infectious diseases specialists, public health specialists and epidemiologists, bioinformaticians, parasitologists, biomedical engineers and other concerned specialists should participate and work in this institute.

For epidemic diseases (community-induced and healthcare-associated) and potential epidemics/pandemics, the said institute should conduct advanced studies on infectious diseases that will escalate due to global warming and climate change, by engaging in diagnosis (immunological (antibody/antigen), molecular and cultural (viral, etc.) analyses, advanced molecular analysis (whole genome analysis, phylogenetic analysis, etc.), vaccination studies, antimicrobial agent development studies and activities of monitoring and identifying the biological warfare threat (Öztürk, 2009).

Additionally, the said institute should focus on vaccine production studies, and primarily achieve the physical structure, technical equipment and manpower that can employ various production techniques and technologies.

On a national scale, vaccine production, for which certain steps are taken and several studies are carried out, is highly important for epidemics. We must decisively resolve, at a national level, the issue of vaccine production that has

been a strategic product today. Vaccine production should be considered in terms of the future of the nation, not in terms of profit and loss, with focus on its considerable contributions to public health regarding vaccine-preventable diseases and its potentially crucial protective roles in a threat of biological warfare. Awareness should be raised in this respect by ensuring the sustained production of some vaccines, for which various studies are currently carried out, and the domestic use and export, if possible, of such vaccines. International collaborative actions may bring benefits to vaccine production, where necessary.

Apart from vaccines, antimicrobial drug production should be taken into consideration simultaneously. A policy should be developed to enable the country to synthesize new molecules and identify the means of rapid production and supply of existing drugs within the country. To this end, it will be beneficial to develop international partnerships.

In addition, the said institute should carry out innovation studies to avoid infections throughout the community and health institutions.

Air Conditioning Efforts to Avoid Airborne Transmissions

Given that the vast majority of pandemics result from respiratory tract conditions, there is a need for policies that attach importance to ventilation/air conditioning systems and support innovative approaches.

Particularly, the ventilation systems which will prevent (airborne) transmission by droplets and droplet nuclei should be properly installed and regularly maintained at hospitals (polyclinics/clinics, operating rooms, intensive care units, etc.), shopping malls, nursing homes, disabled care units, places where other crowded communities gather, and organizations providing community services to meet the related needs, and the efforts for innovation should be maintained in this respect by adopting an innovative approach. In addition, the periods of use and maintenance should be considered, starting from the construction project of ventilation systems, and energy consumption, filter replacement and other technical aspects and costs should be accounted for in terms of maintainability.

In this regard, the Ministry of Health should work in coordination with the related entities, and set standards for ventilation, where R&D activities that will ensure the continuous improvement of these standards should be sustained through university-industry cooperation, and the necessary policies should be determined for this purpose.

Efforts for Quality Personal Protective Equipment

Policies that attach importance to the production of personal protective equipment by innovative approaches are one of the key aspects in this context. This pandemic process clearly demonstrated that personal protective equipment became a widespread social requirement in outbreaks, especially for

healthcare personnel. Many countries suffered setbacks in the supply of masks and other personal protective equipment. It is important to ensure production aligned with the standards set in this field, and to develop a health policy that will attach importance to continuous development through innovations in this respect.

Manufacturing the materials (masks (surgical, N95-/99-type and equivalent, face shields, protective goggles, waterproof coveralls, etc.), which are most frequently used in case of potential outbreaks, at the given standards should be promoted. A system designed to audit the standards for and to validate materials should be established. The infrastructure should be established at institutions to test the conformance of N95-type and equivalent masks. The planning for potential epidemics should secure the fulfillment of national needs, and exports and international aids should be considered when setting the production capacity. R&D and innovative activities dealing with personal protective equipment should not be neglected.

Medical Device Manufacturing

The other key element of R&D and production is medical devices used in outbreaks. In this context, a system that will audit the standards for and validate laboratory diagnostic and research devices (molecular/immunological etc. diagnosis and research) and respiratory support devices (ventilators, etc.) should be established, and activities that can meet the needs in this respect with an understanding of R&D and innovative production should be carried out.

Annual Revision of National Pandemic Plans, Conduct of Pilot Practices, and Focus on other Public Health Protection and Improvement Measures

The National Pandemic Plan, which has been sustained for many years in our country, should be extended to include potential pandemic agents along with the flu, and should be revised every year by the relevant scientific/advisory committee. The related practices should be adopted in a controlled manner at the provincial level.

The health management system should place more emphasis on preventive medicine and pro-public health understanding along with hospital administration. During the COVID-19 outbreak, the great support contributed by private hospitals in the process should be investigated. The policies that allow such hospitals to play a role in future outbreaks should be developed, and the organization of the said hospitals should be adapted accordingly. The national vaccination program for adults such as successful child vaccination should be extended, accompanied by the efforts to prevent the negative impact of anti-vaccination activities.

Development and Application of "One Health" Policies

"One Health" may be defined as the collaborative efforts of many disciplines collaborating on a local, national, and global scale to achieve optimal health

for people, animals, and environment. Zoonotic diseases continue to be a key problem regardless of gradual expansion of the framework of the One Health approach. The most important goals of "One Health" include understanding the dynamics of zoonotic diseases, implementing integrated monitoring systems, and developing preventive strategies (Amuasi et al., 2020; Trilla, 2020; Falkenberg, 2020).

The basic understanding should be a multidisciplinary effort for the "One Health" approach between the Ministry of Health, the Ministry of Agriculture and Forestry and other ministries. For years, warnings continue to be issued regarding the pandemic risk caused by zoonotic diseases, i.e. infections from animals to humans or humans to animals. Considering that 50-60% of infectious diseases in humans are zoonoses, it becomes apparent how appropriate this warning is (Öztürk, 2008; Falkenberg, 2020). It should be remembered that zoonotic diseases usually emerge in wildlife populations and farm animals serve as intermediate hosts before they infect human populations. To that end, integrated monitoring systems that provide faster response to epidemic situations should be developed. Outbreaks may be identified better and responded to faster by combining the data collected by monitoring humans, livestock, and wildlife in an integrated system. To achieve this, a "One Health" approach driven by human, animal and environmental health should be adopted at the national level, and international relations should be developed in this regard. The requirements of the "Tripartite Collaboration Agreement" executed between the World Health Organization (WHO), the World Organization for Animal Health (OIE) and the Food and Agriculture Organization (FAO), which aims to prevent and manage zoonotic diseases and their economic, social and medical effects, should be followed and the efforts exercised in this respect should be sustained. It is a fact that zoonotic diseases will not disappear after epidemics. To this end, the question of when and where the next epidemic will break out and how to set up effective early warning systems and how to develop rapid response strategies should be investigated, and international collaboration should be provided with this goal in mind (Falkenberg, 2020; Trilla, 2020).

The "One Health" conception, which defines human, animal and environmental health as closely interrelated and interdependent, should take up more space on the agenda of the academic world, with further focus placed by curricula on this subject. Close collaboration should be established between the related scientific disciplines, and joint research activities should be carried out by the academy. There is a need for policies to prevent cross-sectoral conflicts, lack of funds and power imbalances that may arise when implementing the "One Health" concept (Falkenberg, 2020).

Keeping biological diversity balanced in the world has benefits that are known or not yet known, other than attaching importance to life of living beings. The main cause of the outbreak of zoonotic disease-induced epidemics is closer contact between humans and animals than ever before. The growth

of the human population and the global economic development result in an increased demand for food, especially animal proteins, giving rise to more intensive farming. Other causes include the expansion of human settlements and agricultural areas and the extraction of various resources. In all these scenarios, people enter the natural habitats of wild animals, and increase the contact between wildlife, livestock, and humans. Wild animals seeking food are forced to live closer to human settlements, as their natural ecosystems and habitats are destroyed. Zoonotic diseases are transmitted to humans while hunting and eating these animals and making use of their different products. We are living in a globalized world where live animals, animal products and goods are circulated and traded freely across borders and continents (Qian et al., 2020; Falkenberg, 2020). The market selling wild animals in Wuhan of China was associated to the initial cases of COVID-19. While conflicting data about this association were presented, there is a high risk of potential outbreaks originating from places where these and similar wild animals are sold in terms of zoonotic diseases.

In this context, it is important to resolve problems worldwide. Intervention in the natural life should be avoided across the world. The markets trading animals that are hunted by intervention in the natural life should not be allowed in any country in the world, and WHO should constantly monitor the existence of such markets. Consequently, the mechanisms should be provided not to let the parties, who hunt or sell wild animals in the markets by intervening in their habitats, suffer economic losses or to supply the food that they need. Introducing a ban without achieving this will cause the process to be carried on illegally/ through black markets. Since infections/outbreaks cause greater problems in low-income countries, it becomes clear that a fairer income distribution in the world will have positive effects on the prevention of outbreaks (Qian et al., 2020).

The current COVID-19 pandemic revealed the criticality of zoonotic diseases, early detection of the outbreak and development of global early warning systems; this is the only way of preventing a zoonotic disease from turning into an outbreak. The “One Health” approach gives an integrated, interdisciplinary insight into the dynamics of zoonotic diseases and enables us to set critical indicators and develop preventive strategies. Additionally, “One Health” may seek a solution to the wrongness and destructiveness of urbanization policies developing at a “pathological” rate by destroying agricultural lands. It is possible to create synergy by integrating food safety, safe water supply, hygiene, public health, health systems and public relations in this context (Qian, 2020; Falkenberg, 2020). Therefore, the “One Health” approach should be adopted and implemented more rapidly locally, nationally, and globally to make the world better prepared to identify and fight the next zoonotic diseases.

Maintenance and Improvement of Relations with WHO and Other International Organizations

Maintaining and improving relations with WHO, ECDC and other international organizations is important for preparedness for potential future outbreaks. The efforts which will allow our country to be more active in WHO should be prioritized. Particularly, policies are needed to enable WHO to assess outbreak threats more rapidly and to be involved more actively in the process.

WHO faced different accusations during this outbreak and earlier outbreaks. Some of these accusations might be true. However, outbreaks/pandemics can only be overcome through global collaboration in today's world. The necessary means should be provided for WHO to eliminate its shortcomings/mistakes and serve as an international leader in epidemics. WHO should transparently fulfill a task that will monitor and control the issue of biological warfare/terrorism worldwide.

WHO should work on early warning systems which will identify outbreaks in a country at an early stage, analyze the circumstances posing an epidemic risk, and establish and support teams that will aid the relevant countries in proactively controlling outbreaks posing the risk of global spread (Qian et al., 2020). In a country with actual cases of outbreak, efforts should be used to adequately control the outbreak and to clearly share actual and updated data, progresses, doubts and problems with the rest of the world. Policies that will ensure this transparency should be developed with an international common understanding (Trilla, 2020).

Focus on Medicine and Other Health Sciences

The COVID-19 process will have consequences on teaching, research, and internationalization in all aspects of higher education (Witze, 2020). Consequently, medicine and other health sciences will be affected by this process similarly.

A high-quality hands-on training on infectious diseases and epidemics should be provided in medicine, pharmacy, dentistry, nursing and health sciences in a way resulting in the acquisition of knowledge, skills and attitudes. An interdisciplinary relation should be established before and after graduation, and infectious diseases and epidemics should be one of the major subjects of postgraduate education. For postgraduate education in health sciences, emphasis should be placed on issues related to outbreaks. Adequate epidemiologists should be raised.

Preparedness for the Management of Pandemic Process in Non-Medical Fields

The relevant organizations should monitor the adequacy of preparedness for issues (distance education, telecommuting, etc.) which always require preparedness in consideration of the effects of the COVID-19 pandemic on education, economy, and other industries.

Studies should be carried out to eliminate the adverse conditions (immobility, psychological disorders, fear/panic of getting sick, social life disorder caused by lack of physical contact, etc.) resulting from staying at home during outbreaks/pandemics, and visual and written materials should be prepared regarding what regular physical activities to do and how to do, including for the elderly, during the stay at home (World Health Organization – WHO, Healthy At Home, 2020; Wang et al., 2020).

Policies are needed to secure economic issues, such as telecommuting, temporary unemployment and layoffs. Actions should be taken to be prepared for productions available at home during epidemics, and the unemployed population should specifically be supported for this purpose.

Epidemics and disasters should be included in economic policies as well as in budgets, and policies should be set to proactively take economic measures in case of epidemics and pandemics. Additionally, legal preparations should be made for any disputes that are likely to arise in this context.

The news and various shows in visual and printed media, which lead to negativities, should be followed at the beginning and aftermath of the outbreak, and made beneficial by persuasion without causing damage to the freedom of the press. Health literacy should be enhanced in the society about outbreaks, and those working in printed and visual media should be trained to raise awareness about epidemics. Actions should be taken to prevent the issue from deviating from the focus in printed and visual media before and during the epidemic/pandemic threat.

In conclusion, the COVID-19 outbreak, which affects the world in many ways, especially in connection with health, economy, social life and international relations, still persists. Being prepared for other epidemics, along with this outbreak, in every aspect on a national scale requires sustained efforts and studies on problematic areas, especially in health, education, economy, agriculture and animal husbandry. Appropriate policies should be developed and implemented for safe food production, water resources protection and safe water supply, economic development, diversification of livelihoods and fair income distribution, and interrelations between integrity of ecosystems and health, and systematic health policies and strategies integrated with a comprehensive and holistic approach.

References

Amuasi, J. H., Walzer, C., Heymann, D., Carabin, H., Haines, A., & Winkler, A. S. (2020). Calling for a COVID-19 One Health Research Coalition. *The Lancet, 395*(10236), 1543-1544.

Butler, C. D. (2012). Infectious disease emergence and global change: thinking systemically in a shrinking world. *Infectious Diseases of Poverty, 1*(1), 5. -5

Baek, W. K., Sohn, S. Y., Mahgoub, A., & Hage, R. (2020). A comprehensive review of severe acute respiratory syndrome coronavirus 2. *Cureus, 12*(5). DOI: 10.7759/cureus.7943

Cohen, M. L. (2000). Changing patterns of infectious disease. Nature, 406(6797), 762-767. DOI: 10.1038/35021206.

Falkenberg T. (2020). *One Health against epidemics and pandemics*: https://www.uni-bonn.de/news/one-health-against-epidemics-and-pandemics [01.06.2020].

Huang, C., Wang, Y., Li, X., Ren, L., Zhao, J., Hu, Y., ... & Cheng, Z. (2020). Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet, 395*(10223), 497-506.

Igoe M, Chadwick V. (2020). After the pandemic: How will COVID-19 transform global health and development? *Devex*: https://www.devex.com/news/after-the-pandemic-how-will-covid-19-transform-global-health-and-development-96936 [01.06.2020]

Johns Hopkins University (JHU). (2020). COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU): https://www.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6 [01.06.2020].

Keshvardoost, S., Bahaadinbeigy, K., & Fatehi, F. (2020). Role of telehealth in the management of COVID-19: lessons learned from previous SARS, MERS, and Ebola outbreaks. *Telemedicine and e-Health*. DOI: 10.1089/tmj.2020.0105

McMichael, C. (2015) Climate change-related migration and infectious disease. *Virulence.,6(*6):548-53. DOI: 10.1080/21505594.2015.1021539.

Öztürk, R. (2008). Enfeksiyon Hastalıklarımda Değişen Epidemiyoloji, 2. Türkiye Zoonotik Hastalıklar Sempozyumu, 2008. [Changing Epidemiology of Infectious Diseases, 2nd Turkey Zoonotic Diseases Symposium, 2008]. Türkiye Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Uzmanlık Derneği: https://ekmud.org.tr/sunum/indir/273-enfeksiyon-hastaliklarinda-degisen-epidemiyoloji [01.06.2020].

Öztürk, R. (2009). Enfeksiyon hastalıklarının değişen epidemiyolojisi ve Ulusal Enfeksiyon Hastalıkları Enstitüsü ihtiyacı. [Changing epidemiology of infectious diseases and the need for the National Institute of Infectious Diseases]. *Sağlık Düşüncesi ve Tıp Kültürü Dergisi*, 9, 94-97.

Öztürk, R. & Şen Z. (2017) İklim değişikliği, küresel ısınma ve enfeksiyon hastalıkları, [Climate change, global warming and infectious diseases]. *Sağlık Düşüncesi ve Tıp Kültürü Dergisi*, 44, 68-73.

Qian, X., Ren, R., Wang, Y., Guo, Y., Fang, J., Wu, Z. D., ... & Han, T. R. (2020). Fighting against the common enemy of COVID-19: a practice of building a community with a shared future for mankind. *Infectious Diseases of Poverty, 9*(1), 1-6. DOI: 10.1186/s40249-020-00650-1

Rossati, A. (2017). Global warming and its health impact. *The international journal of occupational and environmental medicine, 8*(1), 7-20. DOI: 10.15171/ijoem.2017.963.

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). *COVID-19 Küresel Salgın Değerlendirme Raporu*. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34: http://www.tuba.gov.tr/files/images/2020/kovidraporu/T%C3%9CBA%20Covid-19%20Raporu%206.%20G%C3%BCncelleme.pdf [10.06.2020].

T.C. Sağlık Bakanlığı. [T.R. Ministry of Health]. (2019) Pandemik İnfluenza Ulusal Hazırlık Planı. [National Preparation Plan for Pandemic Influenza] : https://grip.gov.tr/depo/saglik-calisanlari/ulusal_pandemi_plani.pdf (01.06.2020)

T.C. Sağlık Bakanlığı. [T.R. Ministry of Health]. (2020) Türkiye'de güncel durum. [Latest situation in Turkey] Retrieved from: https://covid19.saglik.gov.tr/ (01.06.2020)

Trilla, A. (2020). One world, one health: The novel coronavirus COVID-19 epidemic. *Medicina Clinica (English Ed.), 154*(5), 175-177. DOI: 10.1016/j.medcli.2020.02.002.

Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., & Ho, R. C. (2020). Immediate psychological responses and associated factors during the initial stage of the 2019 coronavirus disease (COVID-19) epidemic among the general population in China. *International journal of environmental research and public health, 17*(5), 1729. DOI: 10.3390/ijerph17051729

Woods J, Hutchinson NT, Powers SK, Roberts WO, Gomez-Cabrera MC, et al. (2020). The COVID-19 Pandemic and Physical Activity. *Sports Medicine and Health Science*. DOI: 10.1016/j.smhs.2020.05.006

World Health Organization – WHO (2019). More than 140,000 die from measles as cases surge worldwide. Retrieved from: https://www.who.int/news-room/detail/05-12-2019-more-than-140-000-die-from-measles-as-cases-surge-worldwide (01.06.2020)

World Health Organization – WHO (2020). Healthy At Home. Retrieved from: https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/healthyathome?gclid=CjwKCAjw8pH3BRAXEiwA1pvMsXmVJVmnWtB8wJcP5B_k77DRf4aFADgf2nOAaxBXtC_WY4BjrjFXFBoCdPIQAvD_BwE (01.06.2020)

World Health Organization – WHO (2020). Rolling updates on coronavirus disease (COVID-19) Retrieved from: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happe (01.06.2020)

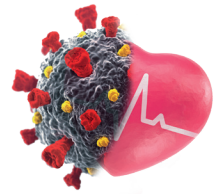
World Health Organization – WHO (2020). Coronavirus disease (COVID-19) Situation Report-145. Retrieved from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200613-covid-19-sitrep-145.pdf?sfvrsn=bb7c1dc9_2 (01.06.2020)

Worldmeter. COVID-19 Coronavirus Pandemic. (2020). Retrieved from: https://www.worldometers.info/coronavirus/ (01.06.2020)

Wu, X., Lu, Y., Zhou, S., Chen, L., & Xu, B. (2016). Impact of climate change on human infectious diseases: Empirical evidence and human adaptation. *Environment international*, 86, 14-23. DOI: 10.1016/j.envint.2015.09.007

Zhai, P., Ding, Y., Wu, X., Long, J., Zhong, Y., & Li, Y. (2020). The epidemiology, diagnosis and treatment of COVID-19. *International journal of antimicrobial agents, 55*(5):105955. DOI: 10.1016/j.ijantimicag.2020.105955

Zhu N, Zhang D., Wang W., Xingwang L., Yang B., Song J. (2020). A novel coronavirus from patients with pneumonia in China, 2019. *New England Journal of Medicine, 382*(8): 727–733. DOI: 10.1056/NEJMoa2001017.



Health Services and Transformation of Health Services in the Post-pandemic Period

Ali Özer

Fevziye Çetinkaya

Prof. Ali Özer

Prof. Dr. Ali Özer graduated from Inonu University, Faculty of Medicine in 1997. Dr. Ozer started his public health residency program in Erciyes University, Faculty of Medicine, Department of Public Health in 2000 and graduated from the same program in 2003 as a public health specialist. Dr. Ozer became an associate professor in 2012 and a full professor 2017 in the field of public health. Dr. Ozer has been a associate member of Turkish Academy of Science (TUBA) and TUBA cancer work group since 2015. Dr. Ozer has also been a member in the Immunization Advisory Commitee, Post-vaccination Adverse Effects Advisory Commitee and COVID-19 Scientific Advisory Committee to Ministry of Health. Dr. Ozer is currently the head of Public Health Department in Inonu University, Faculty of Medicine.

Prof. Fevziye Çetinkaya

Prof. Dr. Fevziye Çetinkaya graduated from Hacettepe University Health Administration Department in 1982. Dr. Çetinkaya completed the Public Health PhD program at the Erciyes University. She received the title of associate professor in same field in 1994 and professor in 2000. Between 2004-2008, she worked as the Deputy Chief Physician and Quality Management Manager of Erciyes University. Her academic interests are health management, health systems, health economics, health education and health promotion and health sociology. She has 135 publications, 40 of which are international and 95 of which are national. She has 150 international and national papers, chapters in 15 books. As a thesis advisor, she conducted 7 specialty theses in medicine, 15 master's theses and 7 doctoral theses. She conducted 21 research projects, 2 of which were TUBITAK projects.

Health Services and Transformation of Health Services in the Post-pandemic Period[1]

Ali Özer
İnönü University
ali.ozer@inonu.edu.tr

Fevziye Çetinkaya
Erciyes University
fevcetin@erciyes.edu.tr

Abstract
Maximizing the life quality of individuals and providing a high level of health services to people is the main goal of the health system. The externality feature of healthcare services requires the state to assume basic responsibilities in the provision of health care services. During the COVID-19 pandemic, handling health as a public service and the importance of service delivery with a philosophical perspective based on the principles of inclusiveness, equity, and solidarity has become evident. The health system, which has a dynamic structure, has experienced a much faster change and development process in the pandemic process. During the pandemic period, it is important to evaluate the positive and negative aspects of experiences in service delivery, to adapt the services to changing conditions, and to take an organizational and holistic approach in solving the problems.

From a social perspective, treating the masses in infectious diseases is much more difficult and costly than preventing the occurrence of the disease. The importance of preventive health services and primary care service structuring within the health system is better understood in this process. In the post-pandemic period, It will be important to experience changes and transformations health system such as the solution of labour and infrastructure problems in the health service system, establishment of a system based on quality and efficiency, strengthening the production capacity of our country(Turkey) in all areas, bringing our country that meets both needs and exports, revising the medical education in line with the needs, increasing cross-sectoral cooperation and health literacy of the society. Most importantly, attempts should be started to establish the referral chain by seeing the opportunity of social perception about primary services during the COVID-19 pandemic period.

Keywords
Health services, health system, post-pandemic period, COVID-19

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The Concept of Health

Health, which is a versatile concept, in the World Health Organization (WHO) Constitution; is defined as "not only the absence of disease and disability but also physical, mental and social well-being". This definition is the most general, widely used, and presenting health in all its dimensions. In addition to the well-being of individuals regarding their health outcomes, their mental and social well-being is also included in the definition. This definition states that health services are a much broader concept than medical services provided to patients and that health services should not be approached with a narrow and traditional bio-medical understanding (Öztek, 2019).

The Concept of Health Services

Health services are a group of activities that include the elimination and protection of various factors that threaten human health, treatment of diseases, and rehabilitation of individuals with various mental and physical disabilities. Health services are a type of service that cannot be substituted, postponed, and it concerns the whole society, unlike other services (Schulz and Johnson, 1990). In addition, health services are a service that is not only the responsibility of healthcare institutions but also concerns the whole society needed cooperation with many institutions and organizations.

Health services have three dimensions: prevention, treatment, and rehabilitation. The main purpose of health services is to provide that people do not get sick, which is to protect individuals and society from diseases. Despite all efforts, it is its secondary purpose to treat sick individuals. The tertiary aim of health services is to provide that people who cannot be fully treated live on their own, ie to rehabilitate them (Öztek, 2019).

Health services differ from other goods and services in terms of, externalities, supply and demand structure, financing, and presentation methods. It is necessary to consider health protection, disease prevention, treatment, and rehabilitation as a public service and to establish the structure within the health service system and provide effective service in all three stages.

Preventive health services are services that aim to minimize the various health/disease risks that the individual and the society may be exposed to in the short and long term, thereby protecting their healthy life potential and improving the life quality. Preventive health services to be carried out for individuals protects society from diseases. Apart from this, the removal of environmental factors that threaten public health includes environmental protective health services that can minimize the potential social risks and costs that may arise in the medium and long term.

Therapeutic health services, which are services provided to sick individuals, don't present external benefits such as preventive health services. However, it provides indirect positive externality to society in terms of preventing negative externality caused by the disease (Çalışkan, 2008).

Rehabilitative health services, on the other hand, include the services provided to eliminate the restriction that prevents the effective use of the organs of the body such as illness, accident, mental disorders, and to prevent these injuries from affecting daily life.

Health Systems

Definition of Health Systems and Characteristics

Health systems are a broad concept that includes all topics such as health care provision, health policies, health manpower planning, education, health system financing, and health legislation. The health system is analysed within the social systems, and the social systems show complex structure features because they are affected by many factors around them. For this reason, health systems are the most complex systems in social systems (Kavuncubaşı and Yıldırım, 2012).

The health system is described as all the services provided by using material and immaterial resources to improve people's health status. In the World Health Report titled "Health Systems: Increasing Performance" published in 2000, WHO stated the health system as "the system that includes all kinds of works whose primary aim is to improve, protect and develop health" (WHO, 2000).

Today, many countries need strong health systems to achieve better health outputs. Each country can choose a different health system. However, the characteristics of each preferred health system can positively or negatively

affect the outcomes of the countries such as average life expectancy and infant death, which are various health-related outputs.

The health system is a social mechanism that directs country resources to specific health outputs/results within the framework of health services. The health system is a system that uses the resources of society to solve certain health problems of society and improve health status. The health system of a country is generally shaped by the health policies created and executed by the authorities and actors of that country. In other words, the shaped health system of a country is an indicator of the health policies implemented by that country. Health systems have a complex structure. In this structure, patients, various healthcare providers, reimbursement agencies, healthcare providers, regulators, government, etc. many different organizations are involved (Street and Hakkinen, 2010). Basic functions of health systems; management and regulation, financing, service provision, resource generation, and organization (WHO, 2000). Each country has a national health system that reflects its culture, history, economic situation and political ideology in its country, and is influenced by factors such as medical information and technology, population characteristics, forms of the disease, social perception and expectations. International relations and financial circles also affect the health systems of countries directly or indirectly. Each country has its own health system and the structure and scope of each health system vary according to the preferences, conditions, and expectations of the society it serves (Yıldırım and Yıldırım, 2011).

It is expected that health systems will have some basic characteristics to have strong and good functioning. These characteristics can be listed as follows (Roemer, 1982).

- *Health Service: It should cover the whole society without any discrimination.*
- *Protective and preventive services should be at the center of health care delivery.*
- *All the protective, therapeutic, and rehabilitative services should be tried to be provided in a modern way with the help of technological elements,*
- *Necessary resource transfer to health systems should be provided,*
- *Sufficient health personnel should be employed in all areas.*
- *Good relations and teamwork among healthcare professionals should be supported for quality service delivery.*
- *To all health personnel; special skills, local conditions, seniority, responsibility, etc.*
- *Considering the quality and quantity of their work, a fee should be paid.*
- *Appropriate financing methods should be developed for the health systems to function effectively and efficiently.*

When health systems have the specified characteristics, basic health systems aim such as increasing the life quality of the society and providing service quality will be achieved.

Health Systems Goals

In general terms of a health system, it has basic goals such as developing, protecting, and supporting the health of a population or society (Feo, 2008). According to WHO, the main purpose of a health system is; to improve the health of the population and to increase health status, to provide healthcare services that meet the expectations of individuals, and to protect people from financial risks against disease costs (DSÖ, 2000).

Health Systems Functions

Countries are expected to effectively implement their health system goals while implementing their health systems. The functions of the health system play an active role in meeting this expectation. These functions, which interact with the objectives, are of great importance for the system.

Health systems: It should have a solid and strong financing structure, enough qualified human resources, decisions, and policies that produce safe information and methods, advanced facilities, and logistics services (McPake and Normand, 2008).

The health system has four main functions accepted by WHO. In the WHO 2000 report, these functions are grouped under four headings: management and regulation, resource generation, service delivery, and financing (WHO, 2000).

While carrying out these functions in the country's health systems, each country develops policies based on the national health system that reflects its history, culture, economic development, and the dominant political ideology in its country.

Management and regulation

There are various processes related to management in health systems. These processes are Management functions such as health planning, control, counselling, and coordination, and regulation and legislation. There are differences in this element with the political structure of the countries in each management process. Health programs: The government can be organized through other public institutions with health functions, like voluntary health institutions and private markets. The organization of these services may differ in each country.

Resource Providing

Restriction of health-related resources requires the use of resources to achieve maximum results. Resources mean one of the most important elements for the health system to continue perfectly. There are four main resources in general: manpower, health structures, health equipment, and materials, and information. The most important manpower in the health system is physicians, nurses, and other health personnel. While hospitals and private medical centers are called health structures; medical supplies, medicines,

and biological materials compose essential health equipment and materials. Information, which is essential for every system, also takes place as one of the most important resources of the health system (Sargutan, 2006).

Service Delivery

The provision or delivery of the service leads to other elements. Because all the elements of the system are created to provide the service more effectively and efficiently. Activities in service delivery; health promotion, disease prevention, diagnosis, treatment, and rehabilitation.

Service delivery in general; basic-primary health services (preventive and therapeutic) can be classified as secondary and tertiary health services. There are also special forms of health services for different situations in most health systems. Based on Roemer's (1989) health systems elements, Kavuncubaşı and Yıldırım (2012) have developed a model for Turkey's national health systems and functions. There are four factors that affect the organization of service delivery. These are policies and strategies, suppliers, services, and financing.

Health Financing

Health services are a type of service that must be met due to their individual and social importance. However, while the need for health services is increasing both individually and socially, the limited budget allocated to these services has led countries to act more prudently in the financing of health services (Ateş, 2012).

The financing of health services is mainly concerned with the money that should be allocated to health services, who will pay this money, who will benefit from these services, how much of this money will be allocated to which services and who will control this system (Hayran and Sur, 1998). The financing of health services affects service delivery, quantity, quality, efficiency, and therefore the health of individuals and communities. The continuous growth of the health sector (due to technological developments, an increase in population, increase in the elderly population and chronic diseases, awareness of individuals) causes an increase in the resources allocated to health. The type of financing of the health services of the countries differs according to the history, political structure, socio-economic characteristics, and economic structure of that country. Therefore, the health financing method of each country differs according to each other, that is, there is no single system that is applicable and efficient for each country (Ateş,2012). It is important to provide health services with high quality, equitable, efficient, and sustainable to realize the right to healthy life defined in international platforms. For this, health services should be financed effectively, efficiently, and sustainably (Atabey 2016).

The share for health is increasing in countries especially in developed and developing countries. Increases in health expenditures have been the main source of health and healthcare discussions in recent years. At the same time, whether resources are used efficiently or not is one of the issues frequently discussed in the health sector. Countries' income levels and health problems

are among the important factors affecting their health expenditures. For this reason, to analyse the efficiency of a country's health care expenditures in the functioning of health systems, it is of great importance to compare with countries in the same income group or geographically close to each other.

Turkey's Health System and Health Services Delivery

Health services in Turkey until the 1980s, took place among the services that the state was obliged to provide. Health services in Turkey underwent a dramatic change in the 1980s with the effects of actors such as the beginning of dominated politics in the world, the World Bank, the International Monetary Fund, and the World Trade Organization. Later, with the "Health Transformation Program" implemented in 2003, significant changes occurred in the delivery and financing of health services.

In Turkey, the Ministry of Health is the most authoritative institution for the implementation of these policies and the formulation of health policy. Many organizations, including public, semi-public, and private, operate in the organization of health services in the country. Health institutions affiliated to universities, especially the Ministry of Health in the public sector, provide health services. Primary health services presented by Ministry of Health are provided by units such as family health centers, community health centers. Hospitals constitute the second step of the system. In the country, secondary and tertiary health services are provided by Ministry of Health hospitals, other public hospitals, university hospitals, foundation hospitals, private hospitals, foreign and minority hospitals. Ministry of Health hospitals have an important position in the system both in terms of the number of hospitals and health services provided to society.

The primary care system in the country was restructured with the family medicine practice, which came to the agenda with the Health Transformation Program and was expanded across the country in 2011. According to the Family Medicine Implementing Regulation, family physicians are defined as physicians who "provide preventive health services and primary care, primary diagnosis, treatment, and rehabilitative health services in a specific and comprehensive place, provide mobile health services to the extent necessary" (Family Medicine Implementing Regulation, 2010).

Primary health care services represent the entrance door of the individual to the health system (McWhinney and Freeman 2009). The use of primary health care services as the first place of the application provides contributions such as reducing costs, accessing appropriate treatment in a shorter time, referring to the right place, and using the emergency services and secondary and tertiary health services more efficiently. In countries with strong primary care, approximately 85% of patients can be treated and followed up in primary care, and their service needs can be met (Başer et al., 2015). However, acceptance of primary health care services as an entrance door to the health system depends

on its availability. Although there is no problem in terms of accessibility to primary health care services in Turkey, the Ministry of Health has not yet implemented the referral chain located within the Health Transformation Program. Therefore, the idea that family medicine practice 2 and 3 may be the solution to congestion in places, prevent the loss of time and resources, could not be realized yet. It has been shown by studies that there is not a big difference before and after family medicine in terms of individuals' preference for the first step when there is any health problem (Naçar et al., 2004; Şenol et al., 2010).

Although studies have shown that the satisfaction rate from family medicine practice has increased over time, it has been shown that the application status is still not at the desired level (Çetinkaya, 2013;Aktürk, 2015; Özata, 2016; Durmuş, 2018). In many studies, people stated that they did not prefer family medicine as the first place of application, 10-15% of them never went to the family physician, they applied to the family physician for recipe repetition and that they did not choose their family physicians themselves (Çetinkaya et al., 2013; Aydın et al, 2016; Durmuş et al., 2018).

In the studies carried out to determine the thoughts and problems of family physicians regarding the system, the rate of those who think that the workload and work stresses have increased has been found high (Çetinkaya et al., 2014; İlgün and Şahin, 2016). In the study of Aktaş, it is seen that family physicians have difficulties related to working conditions and personal rights (Aktaş and Çakır, 2012). According to a study on burnout of family physicians; Half of the family physicians think that practicing negatively affects their psychological status, and half of them think that their anxiety increases for the future (Baykan et al., 2014).

According to the data of the Ministry of Health 2018; There is an average of 3405 people per family medicine unit in Turkey. This figure is higher in Istanbul with 3721 (Ministry of Health, 2018). The target of the Ministry of Health to reduce the number of people per family physician in 2010 to below 3000 has not been reached yet (Ministry of Health, 2018).

In addition, it is claimed that preventive health services for the individual are put into the second plan and become dysfunctional in this system (Öztek, 2009). This plays a negative role in achieving the desired improvement in primary health indicators.

Primary health indicators are widely used to assess the effectiveness of health systems and healthcare spending (Arslanhan, 2010). Prolongation of life expectancy at birth, the mother and the reduction of infant mortality, in 1000 the increase of hospital beds per person, like many improvements occur but still, Turkey lags behind the European Union countries in terms of these indicators (Ay, 2019; UNICEF, 2019).

Service delivery and financing in Turkey is mainly financed by public incomes. The production factors of the services are completely under the control of the public. The health spending trend in the country is increasing every day. In Turkey, health spending has increased due to factors such as the use of new technologies in health services, the increase of the actors, depending on the sector's growth, an increase in the number of individuals aged 65 and over, and individuals who had chronic diseases (Ay, 2019).

According to OECD data, per capita, health expenditure is $ 1194. Per capita in OECD countries, Turkey ranks second among countries with the least health expenditure. It is the country with the lowest expenditure compared to European Union countries. In the United States, where per capita health expenditure is the highest, this figure is 10,209 (TurkStat, 2018; OECD, 2019).

The share of total health expenditures of Turkey's current health expenditure lags developed countries by 4.2% (TurkStat, 2019). In Turkey, the shares allocated for health expenses from the Gross domestic product (GDP) are low than the average of OECD countries (8.8%). This rate is almost twice the OECD average in the USA with 17.2%. Other countries that allocate the highest share of health among OECD countries, Switzerland, France, and Germany.

Another aspect of the problem is that a large part of the money allocated for health is reserved for therapeutic services. The EU's 2018 Progress Report (2018) on Turkey, Turkey has invested more in public health, especially the necessity of increasing the resources allocated to preventive health care is emphasized. There are also problems in using resources allocated to health effectively and efficiently (Bayraktutan and Pehlivanoğlu, 2012; Öksüzkaya 2017; Özçelik, 2019). Nevertheless, Turkey showed a better performance than the countries stated before in the COVID-19 pandemic process with the public approach for the health services offered to the community.

The expected and necessary transformations in health services in Turkey in the post-pandemic period

The fact of how important it is for countries to reveal that health should be handled as a public service, and service delivery and financing should be structured accordingly has emerged clearly in the period of COVID-19. The advocacy of the idea that health is not an individual issue and care should be taken while delivering health in terms of supply and demand conditions has gained importance all over the world. In the pandemic period, Turkey in terms of providing adequate and effective health care to everyone struggling with COVID-19 in accordance with the principle of inclusiveness has come to the fore. This positive situation should be maintained in the post-pandemic period and the understanding and practice in the country should be further strengthened in terms of providing health in a public-based service approach.

- *The advocacy of the approach that healthcare services with social duty and responsibility approach including everybody, based on the principles of equity and solidarity and philosophical perspective, has increased.*

- *Turkey's issues to deal mainly in the post-pandemic period, efforts are made to raise the level of health indicators that are not good compared to EU countries and to surpass them.*
- *In Turkey, the infant mortality rate per thousand is 9.2, this rate in the WHO European Region is 7, It is in high-income group countries is 4.2, while in European Union countries it is 3.3, the infant mortality rate is still not in the desired level (Ministry of Health, 2018). The infant mortality rate in Turkey has been reduced to below 10 per thousand by studies in recent years. This is a positive and important development. However, it is not the goal. These studies and strategies should be re-evaluated, strengthened and studies should be carried out to reduce the rate of less than 5 per thousand in the post-pandemic period.*
- *In Turkey, considerable success has been achieved in the fight against measles, tuberculosis, and malaria, and has been a serious decline in the rate of infection of this disease in the last two decades. The incidence of these three major diseases in the country is lower than the upper-income group and the European Union countries (Ministry of Health, 2018). This situation should be sustained.*
- *During the COVID-19 pandemic, Turkey exhibits an active struggle. Postponed elective health services and physical, mental, and social problems that are predicted to increase should be carefully monitored, and in the post-pandemic period, necessary planning should be made for them from now.*
- *Turkey has made significant legal regulatory and successful efforts in the fight against tobacco and tobacco products. Despite the decrease in consumption of tobacco and tobacco products in the country with this struggle, the rate of smoking and the average number of cigarettes per person is higher than the average of OECD countries in people 15 years and above (Ministry of Health, 2018). Combating tobacco and tobacco products in the post-pandemic period should be on the agenda as an important field of study and struggle.*
- *Important steps in the fight against obesity in Turkey, programs have been developed. However, like all developed countries obesity as one of the most important problems facing Turkey will also remain on the agenda. The frequency of obesity may have increased due to the increased duration of stay at home during the pandemic period. New strategies and studies are needed in the post-pandemic period regarding obesity.*
- *Programs related to increasing physical activity have been developed and implemented by the Ministry of Health. Physical inactivity is an important cause of many health problems. Due to the increase in the time spent at home during the pandemic and the curfew imposed on the group above 65 and below 20, a decrease in physical activity can be expected in society. Programs related to increasing physical activity in the post-pandemic period should be updated/developed, new and strong strategies should be developed, and their implementation should be followed.*
- *In Turkey, the number of vaccine antigens administered according to the vaccine calendar has been a significant increase in recent years. In addition, vaccination rates have increased. The country's rate of vaccination is higher*

than the WHO European region and high-income countries (Ministry of Health, 2018). This is an important success and should be sustained in the post-pandemic period.

- *One of the important problems in the world and in Turkey recently is anti-vaccination. In the COVID-19 pandemic period, there was a decrease in anti-vaccination, and there was a serious expectation in the community to develop a vaccine against SARS-CoV-2. By evaluating this situation, regulations regarding the compulsory vaccines in the Ministry of Health vaccination schedule should be made without delay.*
- *In Turkey, the rate of birth that took place in the hospital has risen in recent years. The birth rate with qualified healthcare staff is higher than the upper-income group and European Union countries. This is a positive and important development. However, there has been a serious increase in the rate of caesarean births in recent years. While the rate of caesarean births in live births in the country is 54.9%, this rate is 28.1% in OECD countries and European Union countries, and it is quite high in Turkey (Ministry of Health, 2018). Studies to reduce caesarean births should be adopted as an important field of struggle in the post-pandemic period.*
- *With the studies of the Ministry of Health in recent years, there have seen significant reductions in adolescent fertility rate, and it remains on the country agenda as one of the problematic areas. While the adolescent fertility rate in the country is 19 per thousand, this rate is 10 in the European Union countries and 13 in the upper-income group (Ministry of Health, 2018). Studies on the reduction of adolescent fertility in the post-pandemic period are required.*
- *Despite the increased number of hospital beds in recent years, the number of hospital beds per 10,000 people in Turkey is 28.3, while it is 46.5 in OECD countries and 49.1 in European Union countries. The acute bed occupancy rate in hospitals is 66.7% d in Turkey, 75.3% in OECD countries, and 74.4% in European Union countries (Ministry of Health, 2018).*
- *For one hundred thousand population, the number of intensive care beds in Turkey 49, Germany 29, Italy 13. Turkey stands out in terms of the number of intensive care beds. (TUBA COVID-19 Pandemic Evaluation Report, 2020). The importance of this infrastructure became more prominent in the period of the COVID-19 pandemic and became a reassuring factor for the society.*
- *The number of MR devices is 11.2 per 1 million people in Turkey. This rate is 16.7 in OECD countries and 14.6 in European Union countries. However, the MR number of views per thousand people is higher in Turkey. Again, the number of Tomography devices is 14.8 for one million people in Turkey. It is 26.8 in OECD countries and 22.6 in European Union countries. However, the number of tomography views per thousand people is higher in Turkey (Ministry of Health, 2018). It is possible to analyse this data in two ways. One of them may be unnecessary MR and tomography shots, the other is the highly cost-effective use of these devices. In the post-pandemic period, it is necessary to make an evaluation from these aspects.*
- *One of the important services provided by the Ministry of Health is 112 emergency services in Turkey. As a result of increasing services in recent years,*

the population per 112 emergency stations has dropped from 138,050 to 29,983 (Ministry of Health, 2018). This decline should be continued.

- *The number of applications per physician per person has increased from 3.1 to 9.5 in Turkey. The number of applications in primary care increased from 1.1 to 3.2, and in the 2nd and 3rd levels increased from 2 to 6.3. The number of applications per physician per person is 6.8 in OECD countries and 6.9 in EU countries. The number of applications to physicians per person in Turkey is concerned with facilitating access to health services and is a positive development. The highest application numbers are in South Korea (16.6) and Japan (12.6) (Ministry of Health, 2018).*
- *Over the years the level of satisfaction with health care services in Turkey has increased to 70.4% from 39.5't%. Turkey is a country with a very high satisfaction rate in terms of total public current expenditure on health and health care (Ministry of Health, 2018). This situation should be sustained in the post-pandemic period.*
- *Approaches and policies that include components related to the training, use, and management of health manpower that can provide health services in a cost-effective manner should be reconsidered.*
- *In Turkey in recent years, with studies, the number of nurses and midwives per hundred thousand people increased to 301 from 171. However, this number is 938 in OECD countries and 841 in EU countries (Ministry of Health, 2018). Nurses in the country work with great devotion and try in order not to cause and create disruption in the services. But the country's need for nurses is urgent and important. Therefore, studies should be carried out to increase the number of nurses and staff in the post-pandemic period.*
- *In order for the health systems to reach the intended targets, the system should be revised continuously by determining correct and effective policies based on the performance measurements of the health systems.*
- *Turkey's health system, as in many countries are also faced with significant resource limitations. Healthcare managers, policymakers, and planners should accelerate search and solutions to use available resources as efficiently and effectively as possible.*
- *During COVID-19 pandemic period, the titles of vaccines, diagnostic kits, personal protective equipment, and ventilation equipment production have come to the fore. Therefore, Turkey should strengthen its production capacity in all areas of health care. First, it should be a country that meets its needs and can export by determining certain thematic areas. In other areas, it should immediately become a country that meets its needs.*
- *To talk about a sustainable effective health system, drug expenditures should be brought under control, drug consumption habits in the society should be changed, and rational drug use policies should be implemented effectively and efficiently. Daily consumption of antibiotics per thousand people in Turkey is 31.0 while this ratio in OECD countries is 18.9. Antibiotic usage in Turkey is quite high (Ministry of Health, 2018). In the post-pandemic period, stronger strategies and programs should be developed to reduce unnecessary antibiotic*

consumption in general and to reduce unnecessary drug consumption in general.

- *Problems such as combating chronic diseases and providing integrated health services, meeting complex health needs, increasing costs, and the aging society are the biggest problems that health systems face today. To cope with these problems, it is necessary to have a strong primary step.*
- *From a social perspective, treating the masses in terms of infectious diseases is much more difficult and costly than protecting them before the disease occurs. The necessity of giving importance to preventive healthcare services and primary care in the healthcare system during the COVID-19 pandemic period has been clearly revealed. In this sense, the physician should be able to offer a comprehensive and continuous health service considering personal needs. The physician should establish a personal relationship with their patient based on trust, healing qualities in the process, and should be qualified as a family physician.*
- *Family medicine practices in Turkey still need to be improved because of the dysfunctionality of referral systems, the family physicians less in quantity and quality, the limitations of the medical school education system, the integration of the shortcomings of the other branches of the family medicine.*
- *Effective provision of primary health care services and decreasing the density in secondary and tertiary health care services will open the door to provide better quality health care services.*
- *Inciting individuals to family medicine, encouraging them to apply, and expanding preventive health services will reduce the cost of treatment services.*
- *It is particularly important for Turkey to increase the resources allocated to preventive health care and to invest more in the field of public health. Infrastructure problems of primary health care services should be resolved quickly.*
- *It is recommended to improve the protective service aspect of primary care, such as periodic health examinations, pregnancy-maternity-baby follow-up, vaccination, and family planning services.*
- *The number of public health professionals in Community Health Centers should be increased and the employment of public health professionals at administrative levels of responsibility should be increased.*
- *Policies should be developed about the subjects that we encounter as a problem of Turkey's health system such as deficiency in the number of family physicians, the number of persons per family physician, and the regional imbalances.*
- *It is expected that the family physician will establish the first medical contact point related to the health system and be a leader or coordinator among the healthcare units, where he is constantly responsible for all aspects of his/her patient's health. The patient should take responsibility for any health-related issue, including the community, family, or social environment.*
- *The fact that the primary step is not preferred at first in health problems, taking the problems to the second or third step increases the workload of these steps*

and causes low-cost efficiency. The family medicine system, which is one of the most important components of the Health Transformation Program, has ceased to be the first place of application for individuals because the effective and gradual referral chain cannot be functionalized. After the current problems of the family medicine system are resolved, the stepwise referral chain should be made functional. The social perception that got used to the primary step and moved away from the hospital is a chance for the referral chain in the COVID-19 pandemic period. The referral chain application should be started by evaluating the appropriate environment.

- *The aim of medical education should be to train physicians equipped with the information and skills that can serve in primary care.*
- *During the COVID-19 pandemic period, there was seen the resignation of healthcare workers in some countries, including developed countries, but this situation was not seen in Turkey. However, this is an important experience, taking this experience into consideration, courses related to the philosophy of health services should be added to all the faculties that train staff working in healthcare provision.*
- *Medical education should include an approach that gives importance to preventive medicine, to protect and increase the health status of individuals and to train physicians and non-physician health personnel. Providing coordination between medical education and health services, balancing the number of general practitioners and specialist physicians, the curriculum being in line with national requirements, etc. many issues should be reconsidered.*
- *One of the prominent issues in the COVID-19 pandemic period is the team spirit in providing health services. In this period, it was clearly seen that the health services were not physician-centred but a team service. Turkey has become one of the countries in the world that can achieve this and even form a spiritual union with social dynamics. In the post-pandemic period, this team spirit and team service approach should be supported and developed.*
- *Primary health care services should be supported in terms of personnel quality and quantity. Attempts should be made to increase the number of family physicians in family health centers. In addition, a college/faculty should be opened for personnel described as family health personnel, and personnel should be trained in this field. A standard in-service training should be provided to staff working as current family health personnel.*
- *The views of family physicians about the implementation of the system should be discussed on common ground with stakeholders who are planners and implementers, and solutions should be provided in coordination with the problems.*
- *Studies should be carried out to increase the health literacy of individuals. One of the most common difficulties encountered during the epidemic of COVID-19 was experienced during health communication and understanding/ implementation of the messages. Studies and training in this area should be increased and supported.*

- *Community-based research focusing on community perceptions, preferences, and use of the service; It is important to provide information on the current situation, compare it with the past, and measure changes over the years.*
- *Payment imbalances among healthcare personnel providing health services should be eliminated and the health performance system should be revised.*
- *A quality and efficiency-oriented system should be established in health services instead of a performance-oriented system.*
- *One of the prominent issues in the COVID-19 pandemic period is the importance of the multisectoral approach in healthcare. Turkey has constituted a great experience in inter-sectoral cooperation in this period and has struggled successfully with the pandemic. This experience should be used during the post-pandemic period and intersectoral cooperation in health care should be sustained and developed.*
- *The difference in emotion between the personnel working in the health service provider that has existed in Turkey for a while and those receiving the service decreased rapidly during the COVID-19 epidemic period, and a common feeling developed over time. In fact, this is a very desirable situation. Because people who receive and provide health services serve the same purpose. Policies to support this new emotional unity should be created and developed.*
- *During the pandemic, the deficiency and inadequacy of the media about health news came back to the agenda. In the post-pandemic period, rules, and decisions regarding health news in the media should be created and shared with RTUK.*
- *Municipalities have assumed an important role in the pandemic period. However, some municipalities' wrong practices such as disinfection tunnels have been negative in terms of the pandemic period. Because municipalities are extremely important in terms of health services. For this reason, health advisory boards should be established in the municipalities during the post-pandemic period. It should be ensured that many services that are closely related to public health from cleaning to disinfection are carried out on a more scientific basis. An important issue in pandemic and all extraordinary periods is also routine health services and services offered to risk groups. To standardize the services to be provided in these periods, studies should be carried out in the post-pandemic period.*

References

Family Medicine Implementing Regulation (2010). Official Gazette: May 25, 2010

Aktaş E. & Çakır G. (2012). Family physicians' views on family medicine practice: A survey study. *Ege Medical Journal, 51*(1): 21-29.

Aktürk Z., Ateşoğlu D., & Çiftçi E. (2015). Patient satisfaction with family practice in Turkey: Three-year trend from 2010 to 2012. *European Journal of General Practice, 21*(4): 238-245.

Arslanhan S. (2010). How Increasing Health Costs Affect Health Indicators? *Report of the Economic Policy Research Foundation of Turkey*.

Atabey, S. E. (2016). *Health Systems and Health Policy*. Gazi Bookstore.

Ateş M. (Ed.). (2012). Health business. Beta Edition.

European Union Progress Report (2018). https://www.ab.gov.tr/siteimages/pub/komisyon_ulke_raporlari/2018_turkiye_raporu_tr.pdf [11.05.2020]

Ay, K. (2019). *Structural Transformation of the Health and Financial Services in Turkey in the European Union Harmonization Process Context*. Trakya University Institute of Health Sciences, Health Management Department, Master's Thesis, 2019.

Aydın, A., Kaya, D., Başak, F., Köşker, H.D., Uçak, S., & Atadağ, Y. (2016). Changes in the reasons for applying to a tertiary care institution with the practice of family medicine. *Turkey Journal of Family Medicine, 20*(4): 141-145.

Başer, D. A., Kahveci, R., Koç, E. M., Kasım, İ., Şencan, İ., & Özkara, A. (2015). Strong primary care for effective health systems. Med J, 15(1):26-31.

Bayraktutan, Y., & Pehlivanoğlu, F. (2012). Effectiveness Analysis in Healthcare Organizations: The Case of Kocaeli. *Journal of Kocaeli University Institute of Social Sciences, 23*, 127-162.

Baykan, Z., Çetinkaya, F., Naçar, M., Kaya, A., & Işıldak, Ü. (2014). Burnout states of family physicians and related factors. *Turkish Family Med. Journal, 18*(3): 122-133.

Çalışkan, Z. (2008). Health economics: a conceptual approach. *Hacettepe University Journal of Economics and Administrative Sciences, 26*(2), 29-50.

Çetinkaya, F., Baykan, Z., & Naçar, M. (2013). Adult Opinions on Family Medicine Practice and Application Status to Family Physicians. *TAF Prev Med Bull., 12*(1): 49-56.

Çetinkaya, F., Baykan, Z., Naçar, M., & Öksüzkaya, A. (2014). The current situations and problems of family physicians in the province of Kayseri and their views about the family medicine system. *Erciyes Med J., 36*(3). 108-114.

Durmuş, H., Timur, A., Yıldız, S., & Çetinkaya, F. (2018). Satisfaction status of the patients applying to Erciyes University Hospital polyclinics from Family Medicine practice. *Turkish Family Med. Journal, 22*(1), 2-11.

Feo, O. (2008). Neoliberal Policies and Their Impact on Public Health Education: Observations on the Venezuelan Experience, *Social Medicine, 3*(4), 223-231.

Hayran, O., & Sur, H. (1998). *Health Services Handbook: Organizing-Financing- Management-Legislation*. Yüce Publications.

İlgün, G., & Şahin, B. (2016). Investigation of Family Physician Employees' Opinions on Family Physician Practice. *Hacettepe Journal of Health Administration, 19*(2):115-130.

Kavuncubaşı, Ş, & Yıldırım, S. (2012). *Hospital and Healthcare İnstitution Management*. Siyasal Bookstore.

Mcpake, B., & Normand, C. (2008). *Health Economics: An International Perspective, (Second Edition)*, Routledge.

McWhinney, I. R., & Freeman, T. (2009). *Textbook of Family Medicine*. Oxford University Press.

Naçar, M., Çetinkaya, F., & Öztürk, Y. (2004). Injury status and expectations of 15-49 age group women from the health center in Kayseri province. *STED, 13*(3), 106-109.

OECD. (2019). OECD Health Statictics, http://www.oecd.org/about/membersandpartners/ [10.05.2020].

Öksüzkaya, M. (2017). Investigation of ınterregional activity in health sector. *Gazi University Journal of Social Sciences, 4*(10), 280-299.

Özata, M., Tekin, F., & Öztürk, Y. E. (2016). Evaluation of Family Medicine Services in Konya. *Journal of Selcuk University Institute of Social Sciences,* (35), 205-218.

Özçelik, M. (2019). Investigation of Turkey's Health System Efficiency. Istanbul Medipol University, *Institute of Health Sciences, Health Management Department*, Ph.D. Thesis

Öztek Z. (2009). Health Transformation Program and Family Medicine in Turkey. *Hacettepe Medical Journal, 40*(1), 6-12.

Öztek Z. (2019). *Health Care Concepts Principles Policies from Public Health Perspective*. Maltepe University Publishing.

Roemer, M. I. (1989). National Health Systems as Market Interventions. *Journal of Public Health Policy, 10*(1), 62-77.

Sağlık Bakanlığı. (2015). *2015 Budget Presentation*. TBMM Plan and Budget Committee.

Sağlık Bakanlığı. (2018). Health Statistics Annual, 2018.

Sargutan, A. E. (2006), *Comparative Health Systems*, Hacettepe University Press.

Schulz, R., & Johnson, A. C. (1990). *Management of Hospitals and Health Services Strategic Issues and Performance* (Third Edition). Mosby-Yearbook.

Street, A., & Hakkinen, U. (2010). *Health System Productivity and Efficiency*. P. C. Smith, E. Mossialos, I. Papanicolas, S. Leatherman (Eds.), in Performance Measurement for Health System Improvement (First Edition). Cambridge University Press.

Şeker, M., Özer, A., Tosun, Z., Korkut, C., & Doğrul, M. (2020). TÜBA Assessment Report on COVID-19 Global Outbreak. http://www.tuba.gov.tr/files/yayinlar/raporlar/T%C3%9CBA%20Assessment%20Report%20on%20COVID-19%20Global%20Outbreak.pdf [30.07.2020].

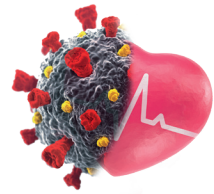
Şenol V., Çetinkaya, F., & Balcı, E. (2010). Factors related to the use of health services in the general population of Kayseri city center. *Turkish Journal of Medical Sciences, 30*(2), 721-730.

Turkish Statistical Institute (TurkStat), (2019). Health Statistics Annual 2018.

UNICEF (2019). Trends in under five mortality rate.

WHO. (2000). *World Health Report 2000: Health Systems: Improving Performance.* The World Health Organization Publishing.

Yıldırım, H. H., & Yıldırım, T. (2011). *European Union Health Policies and Turkey*. Imaj Publishing.



The Effectiveness of the World Health Organization in Pandemics and the Future of the Post-Pandemic Era

Turan Buzgan

Öner Güner

Prof. Turan Buzgan

Prof. Turan Buzgan is a specialist of Infectious Disease and Microbiology. He worked at different managerial administrative levels for the Ministry of Health from 2004 to 2013. He took part in planning and implementation of Turkish Health Transformation Program. He worked as National Coordinator during the Influenza epidemics (Avian Influenza & Swine Flu) and family medicine transition program. Dr. Buzgan is currently working as a lecturer in Ankara Yıldırım Beyazıt University Faculty of Medicine, Department of Infectious Diseases and Clinical Microbiology. His main areas of interest are Outbreaks, infection epidemiology, zoonosis and vectoral diseases, immunization and prevention, family medicine, health system and reforms, health management, health personnel policies. He has been involved in many scientific researches, his articles have been published in various journals and he has written books. He has consulted Ministries of Health of some countries on Health Reform. He is a member of Pandemic Science Board of Ankara Provincial Health Directorate.

Öner Güner, MD

Öner Güner, MD completed his higher education in Punjap University Medical College in Pakistan. He is Ph.D student of Ankara Yıldırım Beyazıt University in Epidemiology of Infectious Diseases. He took up his profession as medical doctor and worked in several Primary & Secondary Care Institutions and Administration. His main areas of interest are health management, health systems and health policies, outbreaks and infection epidemiology, international organizations like WHO. Currently, he is working as General Secretary in the University of Health Sciences.

The Effectiveness of the World Health Organization in Pandemics and the Future of the Post-Pandemic Era[1]

Turan Buzgan
Ankara Yıldırım Beyazıt University
tbuzgan@ybu.edu.tr

Öner Güner
University of Health Sciences
oner.guner.@sbu.edu.tr

Abstract
World Health Organization (WHO) is the specialized agency of the United Nations (UN) which was established in 1948. It has its Headquarters in Geneva, 6 different Regional Offices and149 Country Offices. World Health Organization's mandate, priority areas and working fields are decided by its Member States. Its primary decision-making body is the World Health Assembly (WHA) with WHO Executive Board (EB). World Health Organization's work is determined and reviewed at the WHA by instructions and approval of official delegations authorized by Member States. World Health Organization Director General and staff, together constituting Secretariat, are responsible of implementation of decisions. WHO is an organization that is setting standards and norms in the field of global health, therefore WHO has an impact and mandate on particularly as the directing and coordinating authority, norm and standard setting agency, providing support in cases of emergencies and development of health policies health systems countries. Being a legal framework of detection and control of public health risks at its origin before crossing border, The International Health Regulations (IHR imposes some obligations on WHO and assigns some responsibilities on Member States. Some global health problems and lately the COVID-19 pandemic has led to some criticisms on World Health Organization and brought up the future of World Health Organization for discussion in the post-pandemic era.

Keywords
World Health Organization, WHO, pandemic, post-pandemic, COVID-19

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Foundation, structure and functioning of World Health Organization (WHO)

The World Health Organization (WHO) is a specialized agency of the United Nations (UN) operating in the field of health. The UN has more than 40 specialized agencies, but the number of agencies with executive duties is limited. The World Health Organization is one of the main UN organizations with executive duties (Table 1).

Table 1. United Nations Specialist Organizations

Abbreviation	Institution
WHO	World Health Organization
FAO	Food and Agriculture Organization
UNHCR	United Nations High Commissioner for Refugees
IOM	International Organization For Migration
UNESCO	United Nations Educational, Scientific and Cultural Organization
ILO	International Labour Organization
UNDP	United Nations Development Programme
ICAO	International Civil Aviation Organization
IMF	International Monetary Fund
ITU	International Telecommunication Union
IMO	International Maritime Organization
IAEA	International Atomic Energy Agency
UNWTO	World Tourism Organization

World Health Organization established with the basic principle that health is a fundamental human right and that everyone has the right to access health equally. At the International Health Conference held in New York, the Constitution of the World Health Organization was prepared in July 1946 with the work of representatives of 51 UN Member States and various UN agencies and non-governmental organizations operating in the field of health. With the ratification of the Constitution by 59 member states, including Turkey, it officially became the UN specialist body on 7 April 1948(Ministry of Foreign Affairs, 2020). It currently has 194 members. April 7, the anniversary of the Organization's founding, is celebrated annually as the World Health Day (World Health Organization, 2020a).

The Consitution of the World Health Organization states that the purpose of the organization is to get access to the highest attainable level of health for every person. Health, on the other hand, is defined in this Constitution as "a state of complete physical, spiritual and social well-being, not merely the absence of diseases or infirmity" (WHO, 1946).

Priorities, fields of work, and level of authority of the World Health Organization are determined by Member States. The main decision-making bodies are the World Health Assembly (WHA) and the Executive Board (EB) of the World Health Organization. In the WHA, with the guidance and approval of Representatives appointed by the governments of the Member States, the work of the World Health Organization is directed and supervised. WHO Director General and its technical staff are responsible for the execution of these decisions.

World Health Assembly (WHA): It reassembles every year in May in Geneva, where the Headquarters of the Organization is located, with the participation of Ministers of Health of Member States or their Deputies. The Assembly has basic duties such as determining the basic policies of the Organization, electing the members of the Executive Board, appointing the Director General of the World Health Organization nominated by the Executive Board, supervising the financial policy of the organization, reviewing and approving the budget. The Assembly held annually in Geneva, Switzerland, where the headquarters are located, performed its 73rd session in 2020 in virtual environment due to COVID-19. The majority of the Member States in the Assembly constitute the quorum for the meeting. Resolutions on important issues such as ratification of agreements, exchange of status certificates, adoption of agreements on co-operation with the UN and other international organizations are taken by 2/3 majority, while decisions on other issues, including the determination of matters to be considered important, are taken by absolute majority.

Executive Board (EB): It is composed of expert representatives of 34 countries elected by the Assembly for three years. One-third of its members changes every year. Executive Board meets at least twice a year, one in January-February and the other in May immediately after the Assembly. Executive Board meetings

are the processes in which the agenda of the Assembly is decided and the drafts of the decisions to be taken are shaped. Furthermore, budget and progress reports are reviewed, and current global health issues are addressed. The candidates for the general directorship are also evaluated in the Board and the selected candidates are submitted for the approval of the WHA.

The Director General of the WHO has a very effective position in the administration of the Organization and in the implementation of policies. It is elected by secret voting from among the candidates nominated by the governments of the Member States for 3-year terms by the Executive Board and appointed by the Assembly.

The Director General is elected by two-thirds of the votes in the first two rounds of voting, or by a majority of votes in the ongoing round if this ratio is not achieved (WHO, Rules of Precedure of the World Health Assembly, 1955). Currently, in the 70th meeting held in 2017, Tedros Adhanom Ghebreyesus won the election by being nominated by Ethiopia, and he continues his duty as WHO General Director. The WHO's work at the global level is carried out by its headquarters in Geneva, Switzerland. At the regional level, work is carried out by 6 Regional Offices which are for Africa, the Americas, Europe, the Western Pacific, the Eastern Mediterranean, and South-East Asia (WHO, 2020). At the country level, there are currently 149 field offices. Countries that do not host the WHO Country Office are supported by Regional Offices.

World Health Organization Work Areas

World Health Organization is the principal guiding and coordinating authority in the international health field and also it sets global norms and standards in the field of health, provides emergency support and provides significant technical support for health policies and the development of health systems in underdeveloped countries.

In the World Health Assembly, the first of which was held in 1948, the priority areas of the WHO were identified as malaria, tuberculosis, venereal diseases, maternal and child health, healthcare organization engineering and nutrition (McCarthy, 2002) . Over time, however, the field of work has greatly expanded in line with the decisions made by the Member States.

In the first years of its foundation, WHO has focused on infectious diseases, which were the leading health problems of the period and also the issue of standardization in medicines and vaccines was also on the WHO's agenda during this period (Roemer, 1993) Between 1966 and 1979, studies on the eradication of smallpox and the official realization of the eradication of this disease as approved by the Thirty-Third World Health Assembly in 1980, WHO has proven the important role it plays in global health (Frank, 1988). This success paved the way for WHO to launch vaccination campaigns for diseases such as diphtheria, pertussis, measles, polio and tuberculosis, and others (Roemer, 1993).

Alma Ata Declaration has been an important step in the expansion of WHO's work areas. The Alma Ata Declaration, adopted at the Conference held in 1978, defined primary healthcare services as the basis of development and social justice and placed them in the center of the global health agenda (WHO, Alma Ata Declaration, 1978).

In 1981, a new era began with the detection of the first AIDS cases and the discovery within a short time that the Human Immunodeficiency Virus (HIV) was the cause of this disease. The concepts of 'internationalization of health' and 'global health' began to be widely used as of this period. WHO started global AIDS surveillance as of 1983 (Youngerman, 2008).

Many infectious diseases with global importance such as tuberculosis, malaria, polio, influenza, yellow fever, HIV, SARS, Ebola have been included in the WHO agenda.(Arata, 2005). Since 2004, The WHO has initiated studies on the flu pandemic and has stated that it is likely that the probable cause is due to Avian Flu and that member states should make national plans and preparations. In fact, although the source was not avian flu, the experience of the H1N1 pandemic justified the organization.

Today, World Health Organization work areas include not only infectious diseases but also many basic health issues such as public health, cancer, diabetes, obesity, mental health, reproductive health, tobacco and alcohol use, environmental health, nutrition, aging, water, and hygiene. The Framework Convention on Tobacco Control is an important example of this as the global binding convention in the field of health.

International Health Regulations-IHR

Efforts to prevent the spread of diseases internationally have been ongoing throughout history (Heymann, 2005). For this purpose, quarantine practices, which started in early ages and intensified in the 18th and 19th centuries to prevent plague and cholera outbreaks, have left their place to IHR today (Howard-Jones, 1975).

This regulation is a document that is binding on 194 Member States of the WHO and has been prepared for six "quarantinable diseases" which are "designed to prevent the international spread of diseases", based on the WHO Constitution, in accordance with the demands of the Member States. The First Regulation was signed in 1951 as a joint and binding agreement with Member States, and the International Health Regulation (IHR) was adopted for the first time in the 22nd WHA in 1969. The aim of the IHR is expressed as "to ensure the maximum security against the international spread of diseases with a minimum interference with world traffic" (WHO, International Health Regulations, 1969) Notification of certain infectious diseases was made compulsory with IHR and IHR was revised in 1973 and 1981 to make changes in the list of notifiable diseases. By the 2000s, IHR was found insufficient to

meet the needs and in 2003, a draft was prepared for the IHR update and presented to the views and suggestions of the Member States. The final text was adopted in the 58th WHA in 2005 and entered into force in 2007 (WHO, International Health Regulations, 2005).

The purpose and scope of IHR (2005), which is an international agreement, is defined as follows in the introduction section: "to prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade." (WHO, International Health Regulations, 2005).

IHR obliges Member States to detect public health emergencies of international concern and notify the WHO about them. The IHR also defines the capacities required for countries to detect these events. The Member State must report World Health Organization about the incident it has detected within 24 hours. Following the notification, if necessary, after the risk assessment, the WHO General Director convenes the Emergency Committee. The Emergency Committee consists of a pool of experts made up of members proposed by Member States, experts selected by the Director-General. After the Emergency Committee evaluates the subject presented to it and transmits its opinion to the General Director, the final decision in the anouncement of public health emergency of international concern belongs to the General Director, who received the opinions of the Emergency Committee.

On the other hand, the Ebola virus epidemic, which started in Guinea in 2013 and spread to Liberia, Nigeria and Sierra Leone as of August 2014, has been evaluated by the Emergency Committee as an extraordinary situation and and the Committee recommended to announce it as public health emergency of international concern. This recommendation was created considering the virulence of the disease and the high mortality rate, as well as the weaknesses of the health systems of the countries where the epidemic occurred. Although the number of active cases known as of April 2020 is only three, the continuation the status as public health emergency of international concern, taking into account the risk of rapid spread of the disease, was proposed by the Emergency Committee and accepted by the WHO Director-General.

Emergency Committees established for certain diseases within the scope of IHR are of great importance in terms of making these diseases a priority in the global health agenda. Many diseases such as polio, MERS-CoV, Zika virus and Influenza (H1N1) have been evaluated in the Emergency Committees as required by the IHR and have been prioritized in the health policies of both Member States and WHO (WHO, IHR, 2020).

As a result, this mechanism created within the scope of IHR ensures that infectious diseases are effectively followed, evaluated, and acted all over the world. The Emergency Committee addresses the disease brought to its

attention in all its known dimensions, and the national, regional, and global capacity for disease prevention and control plays an important role in the final decision.

The Sanction Power of World Health Organization

The WHO has been the leading bearer of many important issues at the global level. One of the WHO's most obvious tangible achievements acknowledged on a global scale, is the eradication of smallpox. The Framework Convention on Tobacco Control (FCTC), adopted in 2003, has made the WHO a pioneer in the fight against tobacco at the global level (Reubi and Berridge, 2016). In many parts of the world, many studies such as improving public health, strengthening health systems, surveillance of infectious diseases, elimination of diseases, creation of reference laboratory networks make the WHO a vital organization. Considering the establishment of disease monitoring and surveillance systems in many underdeveloped or developing countries by the WHO within the framework of the polio program, the importance of the WHO can be better understood.

When evaluating WHO's sanctioning power, it should be noted that it is an intergovernmental organization. This means that its mandate and sanction powers, as well as all areas of operation are determined by its Member States. It is possible to say that when decisions are made on WHO by member states with different technical and political views and approaches, the policies and strategies that are most agreeable, not the ones that give the authority Authority, have been adopted.

On the other hand, although WHO decisions may be at various binding levels, there is no sanction authority for matters not implemented by Member States.

World Health Organization Member State Work

World Health Organization works with countries in the process of supporting the development of national health. In the process governments and stakeholders in the creation and updating of National Health Strategies and plans which are suitable within the scope of the commitment to provide technical support offices in countries, while in some cases, from the regional office or headquarters can provide support. WHO works in collaboration with national health authorities, namely Ministries of Health, and proposes support in provision of preventive-curative health services and in some cases it works with other UN agencies, NGOs and affected communities to implement and monitor implementation of programs and works. In terms of mobilization of resources and support of advocacy, the support of Country Offices is more important.

World Health Organization continues to carry out close and continuous work with countries and to take an active role in monitoring and evaluation

activities, both in accordance with the Establishment Law and in accordance with the country work programs and the IHR, within the framework of its mission and vision.

World Health Organization in the process of COVID-19

The outbreak was first identified in Wuhan, China, in December 2019. On 31 December 2019, the WHO Country Office in China was informed of cases of pneumonia of unknown origin detected in Wuhan City, Hubei Province of China. In this announcement, Member States are invited to continue the surveillance of acute respiratory infections. World Health Organization advises against the application of any travel or trade restrictions on China based on the current information available on this event (WHO, Pneumonia of unknown origin - China, 2020)(WHO, 2020).

On January 10, 2020, WHO issued a series of temporary guidelines to inform countries and take preventive-protective measures, but did not recommend any travel or trade restrictions, only expressed their opinion on strengthening emergency health preparedness in line with the IHR (WHO, 2020). The WHO published its first Status Report on January 20, 2020. In this report, WHO anounced that the first case was seen in Wuhan, Hubei Province, and 44 pneumonia cases of unknown origin was reported between 31 December 2019-3 January 2020. On 11 and 12 January 2020, the evidence is highly suggestive that the outbreak is associated with exposures in one seafood market and also in the same report, as of 20 January 2020, 282 confirmed cases of 2019-nCoV have been reported from four countries including China (278 cases), Thailand (2 cases), Japan (1 case) and the Republic of Korea (1 case) (WHO, 2020).

In the early stages of the disease, the WHO dealt with the issue in many unknown contexts. In the first half of January, the disease was known to be caused by a Coronavirus. WHO mission to China issued a statement saying that there was evidence of human-to-human transmission (WHO, WHO Timeline - COVID-19, 2020) In this context, WHO has included local, regional and global risk assessments in its status reports. As of the first published reports, the risk level for China was anounced as very high and the regional and global risk level was anounced as high.

WHO issued its tenth status report on January 30, 2020, announced that a new Coronavirus Emergency Committee meeting had been held within the scope of the IHR on COVID-19, and declared an "Public Health Emergency of International Concern" by the Director General in accordance with the committee's recommendation (WHO, 2020). The report stressed the need to strengthen global diagnostic capacity for improving surveillance, early diagnosis and monitoring the spread of the disease, but noted that human-to-human transmission is limited and that no health measures related to travelers are yet needed (WHO, Situation reports, 2020). At the time of this decision, the total number of cases in the world had risen to over 7000, and there were more cases of the disease in 18 countries other than China.

The WHO changed its travel recommendations for COVID-19 only on 29 February 2020. At this date, the number of cases at the global level reached to 80 thousand and the number of affected countries approached to 40. While the disease was under control in China as of March, it increased significantly in the European Region, and at the end of March, a rapid increase in the number of cases started in the United States (USA). As of mid-May 2020, there was not a country unaffected by the disease, the number of cases at the global level has exceeded 5 million.

On a global scale, after Germany, Japan, Vietnam, the U.S.-Centers for Disease Control and Prevention (CDC) declared the first human-to-human transmission on January 30, 2020. This statement caused a breaking point in the WHO's approach to the issue, as it proved that the spread of the epidemic from people to people, as well as from people with no history of travelling to China, is increasing rapidly. On January 31, 2020, the day after the WHO's announcement, the United States also declared a public health emergency due to Coronavirus infection.

WHO has closely followed the spread of the COVID-19 outbreak in the world, and the WHO Director-General holds frequent and regular press conferences. Although the anouncement of public health emergency of international concern, which is the highest level of emergency qualification under the IHR, took place in late January, the pandemic anouncement was made in March, which could have contributed to a significant increase in global efforts. At the press conference on 11 March 2020, COVID-19 was described as "PANDEMIA" (WHO, WHO Director-General's opening remarks at the media briefing on COVID-19, 2020). WHO has also argued that the pandemic has occurred in a natural course by not giving premium to conspiracy theories such as biological attack and laboratory accident as the cause of the epidemic.

Criticisms against the World Health Organization

Criticisms against WHO are frequently voiced on various issues. WHO's response power and operational capacity to health emergencies has always been a difficult issue to reach consensus among Member States. WHO's current capacity in this area is focused on supporting member states' capacities (WHO, 2020). It is claimed to focus on the process, not action, and it is criticized for failing to have adequate powers in cases where they are incapable of intervening in emergencies (Checchi et al., 2016).

During the COVID-19 Pandemic, WHO has also been criticized for delay in declaring a emergency and a pandemic. The WHO has also been self-critical that there has been some delay. However, while it may be said that China has been more proactive in explaining COVID-19 cases compared to SARS cases, various evidence showing that the first cases began before November suggests that China has delayed sharing cases with WHO and has not acted transparently enough, partly mitigating WHO's error.

With the increase in the number of positive cases in the United States of America (USA) in the same period, criticisms towards WHO gained a new dimension. President Donald Trump has accused China for the occurrence of the diseases and WHO for not preventing international spread. President Trump has voiced WHO's failure to fulfill its main mandate and its pro-Chinese position (Financial Times, 2020). As a result, as of April 15, 2020, President Trump has announced his decision to suspend voluntary contributions from the USA to WHO (Fedor and Manson, 2020). The USA is among WHO's biggest donors. The U.S. pays 22% of the total assessed contributions from Member States. This corresponds to 119 million USD in 2019. Considering that its voluntary contributions were 300 million USD in 2019, the total contribution of the USA to WHO in 2019 was 419 million USD (KFF, 2020). In this regard, it is obvious that there will be a significant deficit in the WHO budget.

More important than the financial contribution is the questioning of WHO's impartiality and adequacy as a result of the harsh criticism. However, contrary to what was feared at the first stage, rather than the wear of the WHO legitimacy, many countries expressed their support for WHO and increased their financial support and strengthened their views. Many leaders, such as German Chancellor Angela Merkel, Canadian Prime Minister Justin Trudeau, Italian Chancellor Guiseppe Conti, and French President Emanuel Macron, expressed their support for WHO. German Foreign Minister Heiko Maas likened the US suspension of funds to WHO to "dismiss the pilot in the middle of flight" and stated that WHO is the skeleton for combating the pandemic (DW, 2020). The claim that the current General Director was elected with the support of China was also expressed in political evaluations interpreted as the payment of a dietary debt for China.

The USA has repeatedly stated and repeated that it is resolutely standing behind its policy against WHO. The 73rd World Health Assembly, which was held between 18-19 May 2020 and where all the participants first attended via remote connection, came to the forefront as the highest level of global health platform where the country's position was clearly stated again. During the speech of the General Assembly, US Secretary of Health Alex Azar stated that the WHO had failed to obtain the information needed by the world during the COVID-19 outbreak, called for transparency and accountability to the organization and its member states, and that the WHO response to the pandemic should be examined and reported by an independent evaluation board (U.S. Mission Geneva, 2020).

Following the statements of Health Minister Azar at the World Health Assembly, US President Donald Trump shared the letter he sent to WHO Director General Tedros on May 18, 2020. In the letter, President Trump has criticized World Health Organization's pandemic management and WHO-China relations in the process since the first occurrence of cases. In addition, the examples given from the SARS pandemic and the travel restrictions recommended by WHO at that time were positively mentioned. The WHO has been asked to make

significant improvements and ensure its independence from China within 30 days, and unless these are done, the interim decision on the US not to transfer resources to the WHO will be made permanent and the US's membership to WHO will be reviewed (Trump, 2020). In the light of these developments, a decision was adopted on the response to COVID-19 at the 73rd World Health Assembly. With this decision, it was decided to evaluate WHO's international response to COVID-19 independently and comprehensively (WHO, 2020). According to the draft resolution published on wHO's page, this assessment is planned to be carried out within the scope of WHO Health Emergencies Program by Independent Oversight and Advisory Committee, which has clearly defined roles and duties and IHR Emergency Committee, and will be reported to upcoming Governing Bodies meetings (WHO, A73/CONF./ 1st Rev.1, 2020).

The Future of World Health Organization in Post-Pandemic Era

Unfortunately, the performance of the UN and other international organizations in preventing, intervening and managing political, economic, security and human crises is not very bright due to its structure (SAM, 2020). Conflict of interests, lack of political consensus, the fact that decision-making processes depend on Member States, and cumbersome mechanisms are some of the main reasons for this situation. It can be said as other reasons such as the Paris Convention, Global Migration reconciliation, the withdrawal of countries that are party to such comprehensively negotiated international framework documents and the weakening of multilateralism on a global scale.

When the developments are evaluated, it is seen that a process has begun in which all the actors involved in the pandemic response process, especially the WHO, can draw important lessons from process management within the framework of the principles of transparency and accountability. If this process is well managed, it will be able to strengthen the WHO and international health governance, which face various challenges in terms of funding, human resources and authority, but if it is managed unsuccessfully it will cause hard damage to the institutional identity of the WHO, which is the principal guiding authority of global health.

It is possible to predict that the criticism of WHO will continue to increase a little more in the post-pandemic period. Furthermore, likely, the number of countries that will support this critical approach led by the United States will increase as the pandemic is brought under control. It seems that it will make it difficult for the organization to fulfill the mission it has undertaken with the absolute majority in decision-making bodies such as the Assembly, and the necessary 2/3 majority in decisions regarding the acceptance of international agreements and cooperation with international organizations.

The United States has an dominant role in the global health media, where it plays a leading role through the powerful philanthropic (charitable)

organizations such as The Rockefeller Foundation, and the Bill & Melinda Gates Foundation which have invested and donated a large amount of money both by government and to health. However, other actors who may take an active role do not seem very keen on this issue and because of this, the future of public health programs which carried out the control, prevention and treatment of HIV/AIDS, TB, Malaria, Polio etc. diseases in low socio-economic countries especially Africa and Asia where enterprise funds such as the Global Fund (GF) will be risked. On the other hand, it seems that China, the other major economic power of the world, which the United States has pointed out as the responsible for the spread of the COVID-19 pandemic, will have to do a lot of effort to justify itself in this regard, as far as it is understood from the policy it has followed and the expenditures it has made in this field, it has not yet made a force in global health. Furthermore, it is known that if the number of infected people is still not too low and the effect of the virus will take months to pass. Therefore, it is likely that in this process of China, to get rid of the charges against it, will be held responsible for the economic crisis that will occur. It should also be kept in mind that China may have to make new moves to fill the gap after USA has withdrawn its support from the WHO.

Although it is difficult to foresee the future anyway, when we look at the criticisms made, it can be understood that the World Health Organization is late in planning and warnings in terms of performance in process management, international measures to be taken, it seems that some countries that have paid heavy prices in the pandemic process will undergo a serious criticism and questioning process. Instead of being shown as the sole responsible of the pandemic on the grounds that WHO did not explain the measures in time and did not direct the Member States; it should be a more rational approach to question the extent to which Member States are performing in taking measures and fulfilling their obligations, especially countries with a high socio-economic development level, and inadequacies and losses experienced in practice in terms of capacity and infrastructure and preparedness. Besides, although the decisions taken by WHO within the scope of IHR are binding, they are in practice in proportion to the strength of the response capacities and health systems of the Member States and have no different response from the recommendation. In this sense, the last pandemic process we are experiencing has been a tough test for countries. Apart from the difficulties experienced, it also provided a painful opportunity for the future in the detection and elimination of deficiencies. In this process, the results of countries' investments in human and health, resilience of health systems, degree of effectiveness of preparations against crises, and early results of the effectiveness of crisis management have emerged.

In the post-pandemic period, an indicator should be added to the health-related parameters used in the countries' level of development criteria such as how strong, sustainable and crisis-resistant health systems are. Another issue that should be evaluated within this scope due to its close relationship with the pandemic is the WHO European Region, which was brought to the agenda at

the WHO European Region Regional Committee Meeting held in Malta in 2012 and was not implemented in the WHO European Regional Committee in 2014, to provide technical support to all member states and to create capacity, projected to be established in Turkey "the WHO Emergency Health Preparedness and Humanitarian Istanbul Technical Office" is the realization that what's so necessary.

It will be an unrealistic approach to expect an alternative healthcare organization, which is intended to replace WHO as a new international health-related organization, which has already been understood, as long as it cannot be concretely demonstrated that, in the light of our experience, it will not be concrete to demonstrate a more effective performance. Instead of seeking alternative solutions, it can be a more rational and more manageable solution to implement the necessary reforms and arrangements required by the correct detection of the deficiencies of the existing WHO system after the pandemic, and to implement it quickly with a result-oriented structure. In fact, countries do not take a pandemic saying I am coming seriously enough; that national plans are not feasible, there are not enough intensive care capacity in many welfare countries with high populations, drug-protective equipment and medical supplies are not good, early warning and response systems against health threats are not strong enough and they cannot be proactive in the measures to be taken in the control of the epidemic, it would be more correct to focus on the facts. In this case, although it seems more reasonable to rehabilitate the existing WHO and to maintain its function, the possibility of the spark of a new formation in international relations circles should not be ignored. The current global system has not taken the necessary steps in time to solve this crisis. For this reason, "The post-COVID-19 period will be the subject of new institutional structures that cover almost all regions, not regional. Although there are bilateral and regional cooperation mechanisms between countries, no efficiency has been obtained in the process that is going on." (SAM, 2020: 64).
"Starting from the delay in taking the necessary steps of a structure such as the WHO, whose credibility was not questioned at the first time, there is a need for a direction to take the basic human stance in an environment where some nation states turn their backs on their own citizens and regional organizations turn their backs on their member states. This understanding should also include international collaboration and humanitarian assistance in addition to the struggle in the field, as in the case of Turkey. Turkey thanks to its strong health infrastructure and crisis-resistant system during the COVID-19 process, as well as securing medical supplies and equipment to meet the needs of its own citizens, it has delivered medical supplies and equipment to 44 self-requesting countries on time, without being indifferent to international calls for assistance (BBC, 2020).

On the other hand, the post-pandemic period is likely to be a period of upheaval in which authoritarian understandings and pursuits are given a greater premium. However, on the ground of pluralist democratic understandings;

it would be more appropriate for the participants to evolve to national administrations and international understandings that act transparently, act with scientific data, share blessings and burdens with a social state understanding, and be self-sufficient in strategic matters (medicine, vaccine, food, medical equipment, defense, etc.).

Otherwise, every understanding that does not have people at the center will result in searching for new problems and new criminals, and the world will become even more uninhabitable.

References

Arata, A. A. (2005). Old and New Pestilences. e. a. Gunn içinde, Understanding the Global Dimensions of Health (35-54). New York: Springer.

BBC. (2020). www.bbc.com/turkce/haberler. www.bbc.com/turkce/haberler: https://www.bbc.com/turkce/haberler-turkiye-52459231 [10.06.2020].

Checchi et al., F. (2016). World Health Organization and emergency health: if not now, when? *BMJ, 352*:i469.

Dışişleri Bakanlığı (2020). T.C. BM Cenevre Ofisi Daimi Temsilciliği. http://cenevreofisi.dt.mfa.gov.tr/Mission/ShowInfoNote/353797 [10.06.2020]

DW. (2020). (G. A. coronavirus, Prodüktör, & Deutsche Welle) May 2020 tarihinde https://www.dw.com/en/germanys-angela-merkel-backs-who-after-donald-trump-cuts-funding-over-coronavirus/a-53156070 [15.06.2020]

Fedor and Manson. (2020). Trump suspends funding to World Health Organization https://www.ft.com/content/693f49e8-b8a9-4ed3-9d4a-cdfb591fefce [10.06.2020].

Financial Times (2020). (Coronavirus: US to halt funding to WHO, says Trump) https://www.bbc.com/news/world-us-canada-52289056 [20.06.2020].

Frank, E. A. (1988). Lessens and Benefits. D. H. Frank Fenner, *Smallpox and its Eradication* (1345-1369). Geneva: World Health Organization.

Heymann, D. L. (2005). Dealing with Global Infections Disease Emergencies. e. a. Gunn, *Understanding the Global Dimensions of Health*. New York: Springer.

Howard-Jones, N. (1975). *The Scientific Background of the International Sanitary Conferences 1851-1938*. Geneva: World Health Organization.

KFF. (2020). *The U.S. Government and the World Health Organization*: https://www.kff.org/global-health-policy/fact-sheet/the-u-s-government-and-the-world-health-organization/ [10.06.2020].

McCarthy, M. (2002). A brief history of the World Health Organization. *The Lancet 360*(9340), 1111-1112.

Reubi, D., & Berridge, V. (2016). The Internationalisation of Tobacco Control 1950-2010. *Medical History, 60*(4): 453-472.

Roemer, M. I. (1993). Internationalism in medicine and public health. W. B. Porter, *Companion Encyclopedia of the History of Medicine,* 1&2(1417-1435). London: Routledge.

SAM. (2020). *COVID-19 Sonrası Küresel Sistem: Eski Sorunlar Yeni Trendler*. (S. A. Merkezi, Dü.) Ankara: Stratejik Araştırmalar Merkezi, T.C. Dışişleri Bakanlığı.

Ministry of Foreign Affairs of Republic of Turkey (2020). Permanent Representation at the United Nations Geneva Office. In May 2020, T.C. Ministry of Foreign Affairs: http://cenevreofisi.dt.mfa.gov.tr/Mission/ShowInfoNote/353797 [10.06.2020].

Trump, D. (2020). This is the letter sent to Dr. Tedros of the World Health Organization. It is self-explanatory! Twitter @realDonaldTrump: https://twitter.com/realDonaldTrump/status/1262577580718395393 [10.06.2020].

U.S. Mission Geneva. (2020). World Health Assembly 73 – U.S. Plenary Statement. U.S. Mission to International Organizations in Geneva: https://geneva.usmission.gov/2020/05/18/world-health-assembly-73-u-s-plenary-statement/ [13.06.2020].

WHO. (1946). Constitution of the World Health Organization, *International Health Conference*. New York.

WHO. (1955). Rules of Precedure of the World Health Assembly.

WHO. (1969). International Health Regulations. *Twenty-second World Health Assembly*. Geneva: WHO.

WHO. (1978). Alma Ata Declaration. I*nternational Conference on Primary Health Care*. Alma Ata: WHO.

WHO. (2005). International Health Regulations. *Fifty-eighth World Health Assembly*. Geneva: WHO.

WHO. (2020). IHR: https://www.who.int/ihr/procedures/ihr_committees/en/ [20.06.2020].

WHO. (2020). Pneumonia of unknown cause - China: https://www.who.int/csr/don/05-january-2020-pneumonia-of-unkown-cause-china/en/ [10.06.2020].

WHO. (2020). WHO Timeline - COVID-19: https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19 [10.06.2020].

WHO. (2020). A73/CONF./1 Rev.1. World Health Organization: https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_CONF1Rev1-en.pdf [20.06.2020].

WHO. (2020). Novel Coronavirus (2019-nCoV) SITUATION REPORT - 1. WHO. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200121-sitrep-1-2019-ncov.pdf?sfvrsn=20a99c10_4 [20.06.2020].

WHO. (2020). Regional offices. (World Health Organization Regional Offices) World Health Organisation: https://www.who.int/about/who-we-are/regional-offices [16.06.2020].

WHO. (2020). Situation reports. World Health Organisation: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports [20.06.2020].

WHO. (2020). Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov) [15.06.2020].

WHO. (2020). WHO advice for international travel and trade in relation to the outbreak of pneumonia caused by a new coronavirus in China. World Health Organinastion: https://www.who.int/news-room/articles-detail/who-advice-for-international-travel-and-trade-in-relation-to-the-outbreak-of-pneumonia-caused-by-a-new-coronavirus-in-china/ [20.06.2020].

WHO. (2020). WHO Director-General's closing remarks at the World Health Assembly. (W. D.-G. Assembly, Prodüktör, & World Health Organization) World Health Organisation: https://www.who.int/dg/speeches/detail/who-director-general-s-closing-remarks-at-the-world-health-assembly [17.06.2020].

WHO. (2020). WHO Director-General's opening remarks at the media briefing on COVID-19. World Health Organisation: https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020 [20.06.2020].

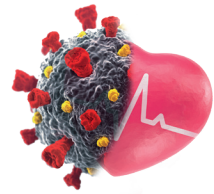
WHO. (2020). WHO in emergencies. World Health Organisation: https://www.who.int/emergencies/en/ [20.06.2020].

World Health Organization. (2020). (World Health Organization Member States) WHO: https://www.who.int/countries/en/ [16.05.2020].

Youngerman, B. (2008). Pandemics and Global Health. New York: Facts On File.

Abbreviations

UN - United Nations
WHA - World Health Assembly
EB – Executive Board
WHO – World Health Organization
IHR – International Health Regulations



The Transformation of Health Education in A Pandemic Era

Zeliha Koçak Tufan

Prof. Zeliha Koçak Tufan, MD

Prof. Zeliha Koçak Tufan started her medical education at Hacettepe University Faculty of Medicine in 1994 and continued at Yüzüncü Yıl University after 1999. She received her infectious diseases and clinical microbiology specialty training at Ankara Training and Research Hospital. She was a guest researcher in the field of parasitology at Leiden University and an observer in Germany and Hungary. She admitted to Ankara Yıldırım Beyazıt University in 2012. She was an observer at Oxford University to develop herself in the area of bone and prosthetic joint infections. Her academic interests are bone-prosthetic infections, transplant infections, viral infections and CBRN. Dr. Tufan was elected to Board of YÖK in January 2015 and to Executive Board in 2016, and was re-elected to the Board in 2019 and is still in this position.

The Transformation of Health Education in A Pandemic Era[1]

Zeliha Koçak Tufan
Ankara Yıldırım Beyazıt University
zktufan@ybu.edu.tr

Abstract
Higher education was interrupted in many countries due to the COVID-19 outbreak. In countries with infrastructure, distance and remote learning was initiated. While theoretical trainings and lectures are carried out relatively successfully, problems related to applied trainings continue to be discussed. Practical training, clinical internships, and field practices in almost all health programs, especially in medical education, have been suspended in many countries. Not only associate and undergraduate education, but also studies of doctoral students who continue postgraduate education, specialty education and clinical research have been affected by the pandemic. Fast track graduation can be discussed, especially in countries where additional postgraduate measures exist: if healthcare personnel are required to pass applied proficiency exams or attend supervised study that are mandatory after graduation. As a matter of fact, obligations such as post-graduation hands-on internships, supervised work phases or a master's degree in certain health programs provide additional education and experience.

In countries where health programs graduates can take part in the provision of health services without any secondary filter or educational processes, as in our country, the subject should be handled differently. Our medical graduates start their compulsory service directly, and our graduate nurses, midwives and dentists can also participate directly in the provision of health services. The primary issue here is not to ignore the competencies and achievements of the relevant program, to correctly evaluate the authorities given by the diploma and to decide accordingly. Therefore, while evaluating the measures and decisions taken in health education during and after the COVID-19 pandemic, issues such as the type of education and post-diploma processes of the relevant country, whether there are secondary processes for competencies and achievements, and the presence of state/board exams or not should also be taken into consideration. Alternative methods need to be developed on how to make compensatory training to fulfill the gaps occurred during the epidemic, for gaining competencies of the health training… The use of artificial intelligence in training and diagnosis, digital education, virtual reality applications in surgical practices, virtual patient interviews… All in digital environment… But physical distance and digital transformation cannot be the only solution or transformation we need. Still the digital transformation that are currently underway will reveal many innovations and expansions and may enable us to adapt them in our routine life soon, while it could take almost 10 years to achieve the same level in a normal evolution.

Keywords
Universities, education, virus, pandemic

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Education was interrupted in many countries due to the new Coronavirus disease-2019 (COVID-19) pandemic. In countries with infrastructure, remote and distance learning was initiated (Distance Learning Solutions, 2020). While theoretical trainings are carried out relatively successfully, problems related to applied trainings continue to be discussed. Practical training, clinical clerkships/internships and field practices in almost all health programs, especially medical education, are suspended in many countries (Kocak Tufan & Kayaaslan, 2020). Not only associate or undergraduate education, but also studies of doctoral students who continue postgraduate education, specialty training and clinical research have been affected by the epidemic processes. Although clinical clerkships and internships to be held in hospitals and on the field are interrupted all over the world, early graduation of students in the last year is also among the topics that come to the agenda, especially in areas where healthcare personnel are in need. Early graduation can be discussed more easily in countries where postgraduate hands-on internships, post-grad applied proficiency exams and/or supervised study stages are compulsory. As a matter of fact, obligations such as post-graduation hands-on internships, supervised work phases or a master's degree in certain health programs provide additional education and experience. But in Turkey, the general practitioners can start their compulsory service duty as soon as they graduate without any secondary obligations after the license. So, in countries where medicine, dentistry, nursing and other health programs graduates can work directly, the subject has to be handled differently. The primary issue here is not to ignore the competencies and achievements of the relevant program, and to correctly evaluate the powers given by the diploma and to decide accordingly. Therefore, while evaluating the measures and decisions taken in health education during and after the COVID-19 pandemic, issues such as the type of education and post-diploma processes of the relevant country, whether there are secondary processes for competencies and achievements, and the

presence of state exams should also be considered. To discuss where the post-pandemic education will evolve, the current effects of the outbreak should be reviewed first. In this article, the current COVID-19 pandemic and its impact on higher education will be discussed first, then we will focus on the measures taken in different countries. The effect of the pandemic on the future of health education will also be evaluated. It is also worth remembering past outbreaks and their effects before proceeding.

Major Outbreaks in Recent History

The medieval plague epidemic is perhaps the most famous outbreaks in the last millennium. The plague has been the subject of hundreds of novels and books; also, many films have been made about it. So much that it can still be seen in Europe in daily life. For example, the famous Glockenspiel at Marienplatz in Munich still shares the joy of getting rid of the plague twice a day, with 43 bells and 32 real-size figures. While the upper floor figures are depicting a Bavarian wedding, the dancing figures downstairs describe the workers who celebrate the good news and joy of getting rid of the plague epidemic days in Munich in 1517 (Radiustours, 2020) (Photo 1).

Photo 1. Glockenspiel at Marienplatz in Munich. It continues to remind curious viewers about the plague epidemic in 1517, with its real-sized figures. The figures resemble the workers dancing on the streets to report the salvation of the plague epidemic



Photo: *(Zeliha K. Tufan)*

The pandemic comes suddenly. It turns the course of life upside down, not only for the days when it is seen, but also afterwards. The most devastating pandemic we know in our recent history is the Spanish flu in 1918 ("Spanish" influenza, Influenza A H1N1). According to CDC sources, it is estimated that approximately 500 million people, a third of the world's population at that time, are infected with the virus. The number of dead is estimated to be around 40 to 50 million according to different sources. Interestingly, the course of the disease was more severe in those three groups: below 5 years old, 20-40 years old and over 65 years old. It is the only pandemic known to have a high

mortality rate in healthy patients, including 20 to 40 years old. The reasons such as the absence of vaccine against influenza at that time and the absence of antibiotics to treat secondary bacterial infections affected the number of the deaths. The fight against pandemic had been tried to be ensured by isolation, quarantine, personal hygiene, and preventing communities from coming together (physical distance).

Afterwards, Asian Flu ("Asian" influenza, Influenza A H2N2) was seen in 1957 and Hong Kong Flu ("Hong Kong" influenza, Influenza A H3N2) was seen in 1968. Asian Flu, which first appeared in Singapore in February 1957, reached Hong Kong in April 1957 and the American shores in summer. Asian Flu, which was also common in our country, lasted until 1958 and caused the death of an estimated 1.1 million people worldwide. The Hong Kong flu has also killed more than 1 million people worldwide. The majority of deaths were 65 years old or older. Even in our days, seasonal Influenza A H3N2 viruses, undergoing regular antigenic changes, continue to cause severe disease in older people. All of them are linked to influenza. H5N1, which later spread in Asia in 1997 and 2003, and H7N7 viruses that caused epidemics in the Netherlands in 2007 were influenza viruses; however, they remained more limited despite their high pathogenicity. Before the current one, the last pandemic in the last century was swine flu (Influenza A (H1N1) pdm09), which was also linked to an influenza in 2009. According to CDC Sources, in its first year, it is estimated that there were 61 million cases, 274,304 hospitalizations and 12,469 deaths in America from April 12, 2009 to April 2010 due to this virus. The number of deaths throughout the world due to Influenza A (H1N1) pdm09, which was appeared first in 2009, was estimated to be 151,700-575,400 (Past Pandemics, 2020) (Kocak Tufan, COVID-19, 2020).

The current pandemic was first appeared in Wuhan, China in late December 2019. The disease caused by SARS CoV2 was not named as Wuhan Flu, where it is first originated, as in the case of other outbreaks, but as COVID-19 (CO: Corona, VI: Virus, D: Disease, 19: 2019). Frist it was thought that, it is originated from the Seafood City Market, which is a wholesale fish and livestock market in the south of Wuhan. It soon transmitted to other cities in the Hubei Province and to the World. World Health Organization (WHO) declared COVID-19 epidemic as a pandemic on March 11, 2020 (Kocak Tufan & Kayaaslan, Crushing the curve, the role of national and international institutions and policy makers in COVID-19 pandemic. , 2020). Until May 22, 2020, when this article was written, 153.548 COVID-19 cases with 4249 deaths were reported from Turkey and 5.107.572 cases and 333.032 deaths were reported from the World (John Hopkins Coronavirus Resource Center, 2020)

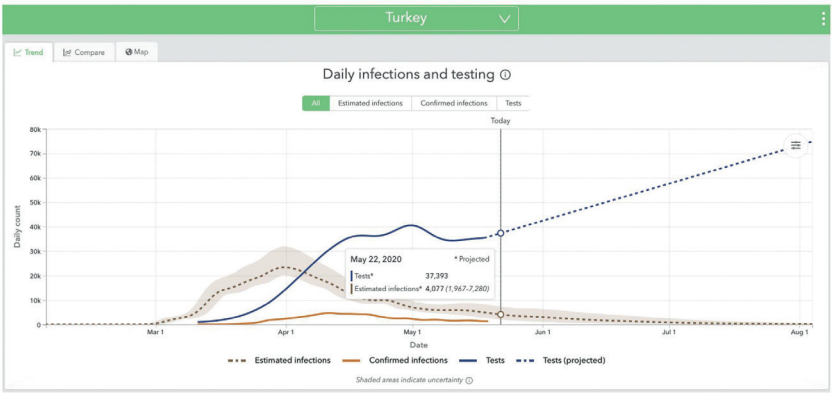
Effects of the Outbreaks

The COVID-19 outbreak spread to the whole world and affected all aspects of life: trade, travel, tourism, economy, social life, education... Different measures were implemented in many countries to prevent the raise of the number of

the cases; schools and shopping centers were closed, flights were suspended, borders were closed (Kocak Tufan & Kayaaslan, 2020). COVID-19 Scientific Advisory Board, which consists of academics from different fields such as public health, emergency medicine, infectious diseases and clinical microbiology was established by the Ministry of Health in Turkey. Following the scientific developments and academic publications around the world, the Advisory Board has developed guidelines for health care delivery for prevention, diagnosis and treatment of the outbreak. They also made recommendations about daily life during pandemic. A continuous consultancy has been provided and continues to be provided for the measures to be taken by various institutions and organizations in relation to the problems in the field. The fact that the epidemic is a dynamic process also makes immediate and rapid decision processes essential. As the measures for the delivery of health care became clear over time, the need for the acute period of the outbreak was met and the Community Science Board was created, measures were diversified, especially for the needs arising during the process of *renormalization* or so-called *new normalization* (COVID-19, New Coronavirus Disease, 2020).

To assess the impact of the epidemic on health and to various sectors, and to take measures by making the necessary planning, it is essential to predict the upcoming stages of the outbreak. Over time, applications and indices were developed to compare the measures of the countries and to predict the number of cases. While some teams monitor 170 interventions, from small-scale measures to restrictive policies such as school closures, have developed an indicator for following fifty-two countries; another team from Oxford developed a single stringency index that follows 13 measures (then calculates 7 out of 13) in more than 100 countries, as they try to make predictions about the outbreak (Gibney, 2020). Many of the models routinely used to predict the course of the outbreak in the future were already failed, with the diversification of the measures taken and the change in compliance with the measures. Still, many universities improved themselves with new models for predictions. The Institute for Health Metrics and Evaluation (IHME), which monitors health indicators at the University of Washington, is one of them, and is already making successful predictions (COVID-19 Projections, 2020) (Figure 1). Such modellings, as well as epidemiological studies, are thought to be further enhanced by post-epidemic data.

Figure 1. Predictions for Turkey based on current data by The University of Washington IHME



Source: *(COVID-19 Projections, 2020)*

Although the outbreak has many different effects from tourism to trade, we will stop with an introduction here and mainly its effects on higher education will be emphasized in the upcoming pages.

Higher Education in Pandemic Era

One of the areas affected by the pandemic is undoubtedly higher education. Many universities around the world have suspended face-to-face training, meetings and research plans. Many closed their laboratories. Many universities are trying to survive on digital platforms. So the distance education infrastructure has become extremely important. While theoretical courses could be survived on digital platforms with online courses, problems with applied and hands-on training continue in many countries (Science in the time of coronavirus, 2020). It is thought that the pandemic will cause profound effects and changes in the higher education system around the world in terms of education methods, research, internationalization and mobility (Sarac, 2020).

Remote and distance learning systems have many advantages and disadvantages. As it is experienced worldwide now, many different topics seem to be raised and will widely discussed about the online learning. The most common problem in different geographical areas is students living in rural areas with limited internet access (The Chronicle of Higher Education, 2020). International students also form a separate discussion: in homeland, their internet access could be different from their schools, which are in another country with different facilities. It is also an enigma for international students if they can return to their school for this fall or not. Those who dare to stay in the country they study, this time health insurance is a problem. In many countries outside of Turkey, foreign students, who were not able to go their home country, are removed from their campuses.

Since pandemic coincides with the spring holidays of some universities, different stories are also encountered, such as international students who left the campus and left their belongings at dorms without being aware of the upcoming epidemic (Those who left, those who continue 2020). There were also students whose life depends on their part-time job on campuses and have difficulties holding onto life after the campuses are closed (Patel, 2020).

The response of Turkish universities to the global pandemic was rapid. New Coronavirus Outbreak Advisory Commissions (COVCOMs) were established at all universities to create dynamic solutions for distance learning and to keep campuses safe and healthy for the staff (Kocak Tufan, COVID-19 Diaries of Higher Education during the Shocking Pandemic, 2020). When the country's first case was reported on March 10, face-to-face education was suspended directly. Distance education was started immediately one week later, on March, 23. According to a survey conducted by Council of Higher Education of Turkey (YÖK), 121 (64%) of the 189 universities participating the survey were switched to distance education on March, 23, a week after the formal education was suspended, while 41 (21.6%) started on March, 30; and 25 (% 13.2) on April, 6. (YÖK Distance Education Survey, 2020). Currently, universities use synchronous and/or asynchronous distance training methods in almost all theoretical courses of formal education programs. Normally in the spring semester, the total number of courses in Turkish Universities is 736,341. In this context, approximately 90% of the courses were opened to education remotely by higher education institutions.

Universities are closed nationwide not only in Turkey but in about 180 countries, while in some countries local closures are also tried (Distance learning solutions, 2020) (National learning platforms and tools, 2020). While the data on remote teaching of theoretical training seemed to be relatively successful, the practical/applied part of the training was largely interrupted worldwide. Especially those programs which have high proportion of applied trainings were affected more: workplace training, field practices and applications of engineering programs, civil aviation and ground services programs; flight training; internships of education programs; clinical practices of medicine, dentistry, nursing, midwifery, physiotherapy and field practices of pharmacy...

Universities are autonomous in Turkey, still CoHE made gradual transfer of its authority after the transition to distance education to make universities more flexible and dynamic in pandemic era. So that the universities were able to use different methods of training practices. The dynamic of the epidemic in their region, the number of the students of each faculty, the number and distribution of academics are all different for each university. That is why *one size fits all* decisions never work for universities, especially in a pandemic. So they have the authority to plan their applied education and to use different methods also for exams in digital platforms (YÖK COVID-19 Information, 2020).

Turkey's higher education area is huge with about 8 million students and 209 higher education institutions. It would be wrong to compare the responses to the pandemic directly with the measures of other countries. Indeed, the number of students is already much larger than many other countries. Nevertheless, when we interpreted the first data and compared it to applications in various countries around the world (Gibney, 2020), we see that with dedicated academics, Turkey's higher education gave a successful test from the beginning of the pandemic with its fast adaptability, quick responses and dynamic processes (YÖK COVID-19 Information, 2020)(Sarac, 2020) (Gibney, 2020)

Pandemic and Transformation of the Universities

The social, cultural and economic consequences of the outbreak will affect the HEIs and their work for the future. Beside the conveniences it has provided, distance teaching requires a serious investment as well. Still the infrastructure of many Turkish universities was relatively ready for the outbreak: 128 had remote education centers before the pandemic emerged. Under the leadership of Prof. M. A. Yekta Saraç, CoHE launched the Digital Transformation Project two years ago which implemented intensive digital education programs for academics and students at universities in relatively underdeveloped or developing regions: 6,000 faculty members of 16 universities were given digital course material preparation courses (Sarac, 2020). About the pandemic, Mr. Saraç, underlined the following in his article published in University World News:... *economy, public administration, health policies and international relations will be affected, and different social structures will inevitably emerge in the future as the paradigm changes in education.*

With digitalization, various needs will show up, but the economic situation will be the determining factor in how the process will continue. For private universities around the world with no government support, COVID-19 may also be the beginning of the decline. Still, the 2020-2021 academic year may be a period where we will encounter important modelling for solutions for theoretical trainings as well as applied training.

Universities are also the places of innovation and research center's that can serve to stop the spread of the pandemic. Drug studies, clinical research, vaccine development, personnel protective equipment design... All of these issues are of interest of the academy. We can discuss the role of universities in the epidemic under 4 topics:

1. *Health education*
2. *Health care delivery*
3. *Academic counseling*
4. *Research and development*

At the end of the outbreak, we will surely face many innovations in all four titles. But thousands, millions of people are no longer in their laboratories or research centers. Still we have already observed that universities and academics

are playing active role in the field during the pandemic, they work with local health authorities, develop guidelines for the control of the pandemic, give advices and decisions on health care delivery. University-industry cooperation about research on drugs and potential vaccines are also increased. It seems that universities, which play an informative role by organizing online meetings and seminars for the society during pandemic, will engage in many more university-industry and university-public collaborations after the pandemic as well. As a matter of fact, in an article published in the journal *Nature*, it is said that new collaborations are being established between Universities and researchers from different fields and different specialties to examine, treat and prevent the virus already (Science in the time of coronavirus, 2020).

Health Education in the Pandemic Era: International Examples

Medicine and other health programs are among the programs most affected by the outbreak. While some countries in need of health care staff have called on last year health students to join the workforce, others, such as United States, prefer to suspend the clinical education and practices. Since the concern about the lack of infection control practices of the students, the likelihood of spreading the disease, with the concerns for difficulties in providing personal protective equipment (PPE) outweigh the benefits of continuing education (Lacobucci, 2020) (Interim guidance on medical students' participation in direct patient contact activities: principles and guidelines, 2020) (Farber, 2020). The American Medical Schools Association initially recommended that member schools suspend clinical rotations for medical students for several weeks (Interim guidance on medical students' participation in direct patient contact activities: principles and guidelines, 2020). In America, especially when the websites of Harvard University, the Association of American Colleges and Universities (AACU) and the American Medical Association (AMA) are examined, the highlights are:

- *Continuous updates and briefings*
- *Stay in touch with academic, administrative staff and students through regular meetings, interviews and online meetings*
- *Giving information about distance learning and teaching, keeping these quick facts accessible*

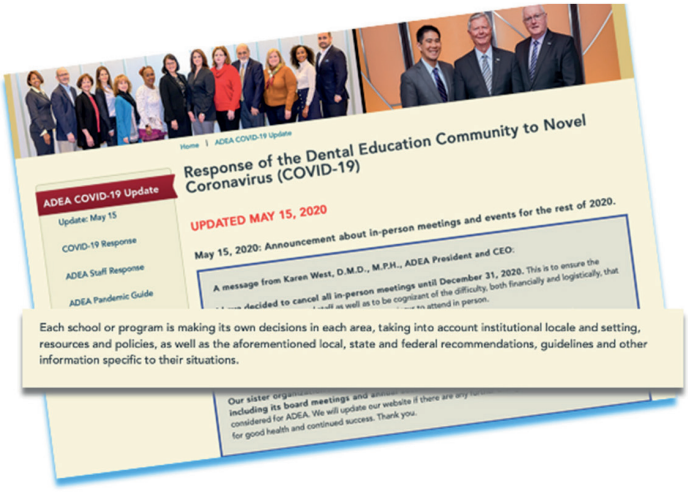
When these information sites and meetings are examined, recommendations for protecting body and mental health are seem intense, referring to the health of students and academics. But concrete, alternative recommendations for health programs' education and clinical practices are rarely encountered (Figure 1,2). Campuses and hospitals are usually discussed separately. Campuses are generally closed to face-to-face training. Most of the work in the research centers of universities are also suspended, only limited access to labs are allowed for the maintenance of microbiology or cell cultures, feeding lab animals. For ongoing thesis studies, students are referred to their academic counsellors (Harvard University, 2020; AAMC, 2020)

Figure 1. Examples from the Harvard University's announcements to dentistry students. The clinical practices are suspended during the outbreak



Source: *(Coronavirus Response, 2020)*

Figure 2. Examples of the American Dental Association's announcements on dentistry education. With the recommendations of national and local authorities, each school will make its own decisions considering its own resources



Source: *(A Pandemic Resource Guide for Dental Education, 2020)*

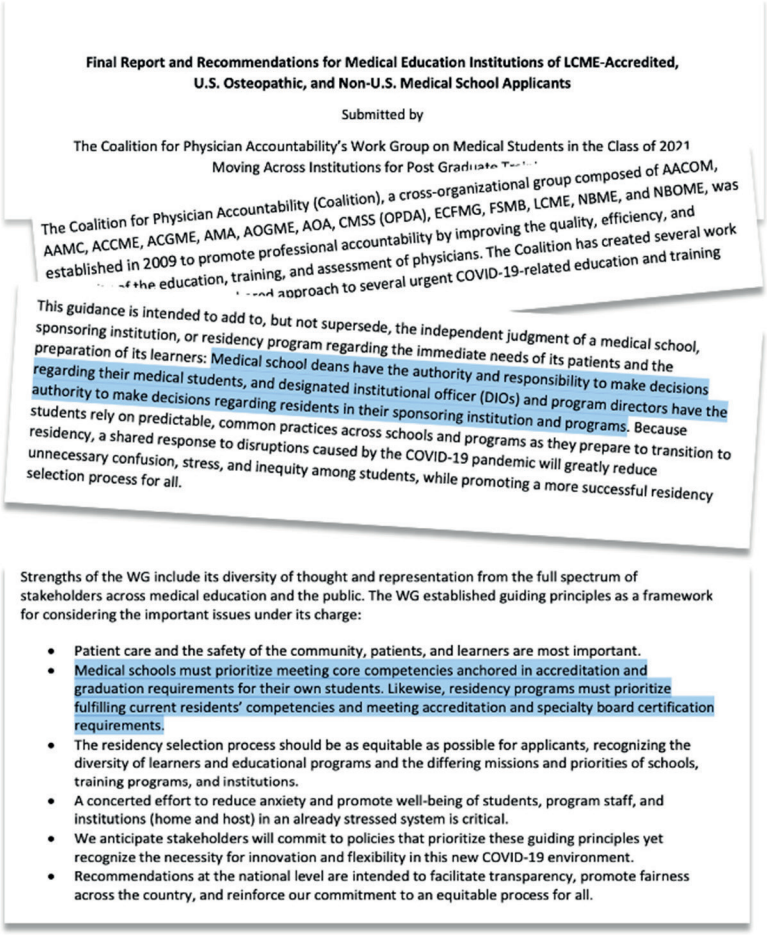
Many universities in the United States try to open in the fall, but whether all campuses can be opened, when they can open, how to complete clinical internships in health programs are seen as a complete mystery. The hospitals do not provide concrete and clear statements for the internships of medicine, dentistry and other health programs, just they say AMA's recommendations are taken into account (The Chronicle of Higher Education, 2020) (AACU, 2020). On the one hand, it is stated that health programs that require internships in hospitals are not being made and the process is closely followed, while on the other hand, it is stated that each student should make their program by interviewing the relevant program directors (Statement on clinical placements , 2020) (Harvard University, 2020). Nevertheless, there are examples of continuing internships by conducting patient interviews in digital platforms. There are also examples that medical and health students can continue their internships in outpatient clinics that accept patients other than COVID patients. When the website of some other hospitals and health centers are examined, it is also stated that although internships are suspended for a short period of time, graduation processes of those who have completed compulsory internships will be made, and those who have not completed will be worked to raise their graduation dates without sacrificing competence (Medical Education Guide, 2020) (AAMC, 2020) (Harvard University, 2020). There are also few advocates that students in medicine and other health programs are part of the health system and that they should continue internships and clinical practices by taking the necessary measures (Farber, 2020) (Smith, 2020). Indeed, three principles are mentioned in an article published in the AMA (Smith, 2020).:

> *… Dr. Mangrulkar and his colleagues at University of Michigan convened a work group to draft a set of principles based on input from stakeholders throughout the medical school. What resulted was a five-part statement, teed up with a preamble declaring, in part, "Medical students are, and always have been, considered essential members of the health care team …" and followed by three principles:*
> *"The care of patients is our primary concern, and we must have students actively involved in our care environment. …"*
> *"Students must be safe and maximize the health of those with whom they work. …"*
> *"The school will continuously adapt to prepare the next generation of physicians. …"*

The Coalition Physician for Accountability Coalition, founded in 2009, consisting of representatives of various associations, institutions and organizations (AACOM, AAMC, ACCME, ACGME, AMA, AOGME, AOA, CMSS (OPDA), ECFMG, FSMB, LCME, NBME and NBOME) has also published a report on medical education during the outbreak (Final Report and Recommendations for Medical Education Institutions of LCME-Accredited, U.S. Osteopathic, and Non-U.S. Medical School Applicants , 2020). This report also states that there is no *single solution to suit all* and underlines that the responsibility and authority belongs to the medical school deans for their own schools. However, it is also stated in the same report that a consistent policy should be followed for

all students in order to meet the expectations. Among the published proposals for the students are suspending the exchange programs and internships or rotations other than their own schools for 2020-2021 or taking into account the possibilities of quarantine. Many times, it is underlined and recommended to focus primarily on the requirements of core education in medical education practices during the pandemic process (Figure 4).

Figure 4. The Coalition for Physician Accountability Coalition underlined the prioritization of core education in undergraduate and also in specialization training during the epidemic process



Final Report and Recommendations for Medical Education Institutions of LCME-Accredited, U.S. Osteopathic, and Non-U.S. Medical School Applicants

Submitted by

The Coalition for Physician Accountability's Work Group on Medical Students in the Class of 2021
Moving Across Institutions for Post Graduate Training

The Coalition for Physician Accountability (Coalition), a cross-organizational group composed of AACOM, AAMC, ACCME, ACGME, AMA, AOGME, AOA, CMSS (OPDA), ECFMG, FSMB, LCME, NBME, and NBOME, was established in 2009 to promote professional accountability by improving the quality, efficiency, and [illegible] of the education, training, and assessment of physicians. The Coalition has created several work [illegible] approach to several urgent COVID-19-related education and training

This guidance is intended to add to, but not supersede, the independent judgment of a medical school, sponsoring institution, or residency program regarding the immediate needs of its patients and the preparation of its learners: Medical school deans have the authority and responsibility to make decisions regarding their medical students, and designated institutional officer (DIOs) and program directors have the authority to make decisions regarding residents in their sponsoring institution and programs. Because students rely on predictable, common practices across schools and programs as they prepare to transition to residency, a shared response to disruptions caused by the COVID-19 pandemic will greatly reduce unnecessary confusion, stress, and inequity among students, while promoting a more successful residency selection process for all.

Strengths of the WG include its diversity of thought and representation from the full spectrum of stakeholders across medical education and the public. The WG established guiding principles as a framework for considering the important issues under its charge:

- Patient care and the safety of the community, patients, and learners are most important.
- Medical schools must prioritize meeting core competencies anchored in accreditation and graduation requirements for their own students. Likewise, residency programs must prioritize fulfilling current residents' competencies and meeting accreditation and specialty board certification requirements.
- The residency selection process should be as equitable as possible for applicants, recognizing the diversity of learners and educational programs and the differing missions and priorities of schools, training programs, and institutions.
- A concerted effort to reduce anxiety and promote well-being of students, program staff, and institutions (home and host) in an already stressed system is critical.
- We anticipate stakeholders will commit to policies that prioritize these guiding principles yet recognize the necessity for innovation and flexibility in this new COVID-19 environment.
- Recommendations at the national level are intended to facilitate transparency, promote fairness across the country, and reinforce our commitment to an equitable process for all.

Source: *(Final Report and Recommendations for Medical Education Institutions of LCME-Accredited, U.S. Osteopathic, and Non-U.S. Medical School Applicants, 2020)*

In the United Kingdom, especially when the websites of universities and institutions such as the General Medical Council (GMC), the Medical Schools Council (MSC), the London School of Hygiene and Tropical Medicine, and Oxford University are examined, the highlights can be listed as follows (Oxford Medical Students Step Support Fight Against COVID-19, 2020) (London School of Hygiene and Tropical Medicine, 2020) (General Medical Council, 2020) (Coronavirus (COVID-19): advice and support for students, 2020).

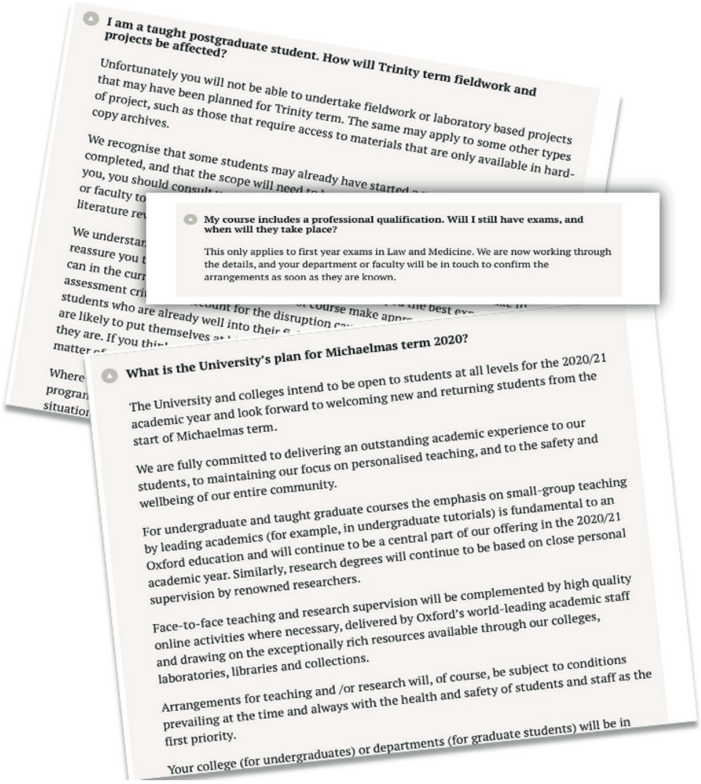
- In the statements of GMC, each school will decide according to its own conditions; plans will be made for the students who do not graduate, and the procedures for placement of graduates will be initiated and will be completed when they officially graduate from their schools; students can work voluntarily but their education is prioritized, they can volunteer in different centers close to their schools but they will not be employed like a doctor even if they work voluntarily.

- There are also comments that, students are also a natural part and employee of the health delivery system, and they have to take part in the pandemic process with different formulas and continue their education… *The Medical Schools Council welcomes the confirmation from the Department for Health and Social Care in England that medical students are deemed to be "essential workers"…*

- It is also stated in the explanations that, while medical students stay at home to prevent COVID-19 spreading, they miss important clinical internships, so the faculties should compensate this duration by finding their own solutions.

- As a concrete proposal, it is also suggested that some related internships can be combined later on: such as pediatrics and obstetric and gynecology internships. However, it is still a suggestion. It is also underlined that each faculty should make its own decisions, but it would be rational to focus on compulsory internships by making concessions from elective internships. Starting programs earlier for the next term is also seen to be on the agenda.

Figure 5. Oxford University also informs its students that it cannot provide face-to-face teaching in many programs, stating that safety is first priority. Laboratory and field work have been suspended



I am a taught postgraduate student. How will Trinity term fieldwork and projects be affected?

Unfortunately you will not be able to undertake fieldwork or laboratory based projects that may have been planned for Trinity term. The same may apply to some other types of project, such as those that require access to materials that are only available in hard-copy archives.

We recognise that some students may already have started
completed, and that the scope will need
you, you should consult
or faculty to
literature re

We understar
reassure you t
can in the curr
assessment cri
students who are already well into their
are likely to put themselves
they are. If you thi
matter

Where
progran
situatio

My course includes a professional qualification. Will I still have exams, and when will they take place?

This only applies to first year exams in Law and Medicine. We are now working through the details, and your department or faculty will be in touch to confirm the arrangements as soon as they are known.

What is the University's plan for Michaelmas term 2020?

The University and colleges intend to be open to students at all levels for the 2020/21 academic year and look forward to welcoming new and returning students from the start of Michaelmas term.

We are fully committed to delivering an outstanding academic experience to our students, to maintaining our focus on personalised teaching, and to the safety and wellbeing of our entire community.

For undergraduate and taught graduate courses the emphasis on small-group teaching by leading academics (for example, in undergraduate tutorials) is fundamental to an Oxford education and will continue to be a central part of our offering in the 2020/21 academic year. Similarly, research degrees will continue to be based on close personal supervision by renowned researchers.

Face-to-face teaching and research supervision will be complemented by high quality online activities where necessary, delivered by Oxford's world-leading academic staff and drawing on the exceptionally rich resources available through our colleges, laboratories, libraries and collections.

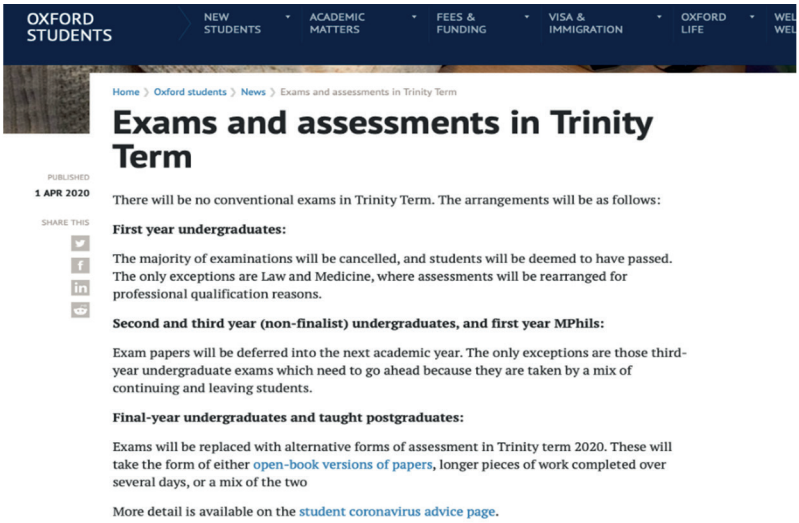
Arrangements for teaching and /or research will, of course, be subject to conditions prevailing at the time and always with the health and safety of students and staff as the first priority.

Your college (for undergraduates) or departments (for graduate students) will be in

Source: *(Coronavirus (COVID-19): advice and support for students, 2020).*

As in other schools, Oxford University's website has several pages of Q&A, providing information on many topics for students. Many universities in both the United States and the United Kingdom are constantly informing their academics and students. However, as mentioned earlier, there is no exact alternative proposals for the hands-on parts of health education. Repetitively they say they cannot provide face-to-face training in many areas, laboratory and field studies are disrupted, and they continue to work on the problems caused by the unfinished projects and researches (Figure 5). Interestingly, the University of Oxford states that in some programs, except for medicine and law, it accepts first year students will be deemed to have passed, without an examination. Exams will be replaced with alternative forms of assessment in Trinity term 2020 (Figure 6). It is noteworthy that many problems have not yet been answered due to the uncertainties in the pandemic.

Figure 6. The University of Oxford states that in some programs, except for medicine and law, it accepts first year students will be deemed to have passed, without an examination. Exams will be replaced with alternative forms of assessment in Trinity term 2020.



It is possible to assess that universities are often substituted for theoretical courses with distance teaching, suspend hands-on courses, and focus on various research and development activities related to the pandemic and the social management of the epidemic, rather than continuing education during the pandemic process (London School of Hygiene and Tropical Medicine, 2020).

Transformation of Health Education

The outbreak is already there. Pandemic is a very dynamic process and decisions may have changed even on the day these lines were written. Nevertheless, while many universities around the world can pursue theoretical courses digitally with distance learning infrastructure, they have been caught unprepared in terms of hands-on practical courses. Many never think about alternative methods for clinical practice applications. However, even 100 years ago, there was a shortage of medical personnel in the 1918 pandemic and they try to train nurses by catalogues prepared for distance education (Figure 7). After that, this issue has been forgotten for many years, and new and common models have not been developed for maintaining the practical practices of health education with distance teaching. Rather, studies have focused on virtual reality and artificial intelligence in education, especially in diagnostic processes in recent years. The alternative methods that are created and released today during the COVID-19 outbreak process will perhaps even be a rescue rope for countries that do not have adequate health education in the future.

Figure 7. The ad of the Chicago Nursing School for distance education in 1918 (CDC Image Gallery). There was a shortage of medical staff during Spanish flu pandemic. But since then, advanced and widely accepted models in distance education for practical applications of health programs have not been introduced.



To maintain the applied courses of health education and to create new alternatives, the following should be taken into account:

1. *Emphasis on the development of alternative methods by keeping the administrators in constant contact with academics, students, hospitals, and local authorities*
2. *Working on alternative measurement and evaluation methods*
3. *Taking advantage of the different possibilities of the digital platforms, creating clinical practical environments with virtual reality tools,*
4. *Examining distance learning systems that enable existing synchronous and asynchronous training, try to find user friendly and multi-purpose service applications: instant bilateral and collective communication opportunities, facilities for file uploading, accessibility for students with disabilities, reporting feedbacks and revealing aspects that are open to development.*

The changes that can be discussed for the transformation of health education along with the changes in healthcare service delivery are summarized in Table 1.

Table 1. Main factors in the transformation of health education during and after the pandemic

Change in health education due to the impact of the pandemic on education	Addressing ethical and moral values in new systems and applications
	Development of skills of academics for digital transformation
	Simulation of applied courses and clinical practices with virtual reality
	Developing new alternative methods for measurement and evaluation, expansion of assays, manuscripts, homework and projects in evaluation
	Developing strategies for improving the student's self-discipline for consistency with the digital courses
	Developing alternative on-line or distance models for the activities to be done to increase the experience of campus life, focusing on personal capacity development, knowledge and manners.
Change in health education due to the impact of the pandemic on health care	Using the artificial intelligence in diagnosis and treatment. Also training the staff for AI.
	Conducting patient interviews in digital environment, ensuring the participation of students
	Providing longer and more active training in undergraduate education on infection control measures, public health and field practices and combating epidemic in hospital and community
	Improving the curriculum of different health sciences with emerging/re-emerging topics such as pharmaco-economics, legacy of clinical trials etc.
	Development of a culture or ecosystem of work and research in collaboration with basic sciences; dissemination of master's and doctorate programs (MD-MSc, MD-PhD) programs together with undergraduate education.

As a matter of fact, when analyzed through the examples of the United States and the United Kingdom, it is stated that the new and widely accepted alternatives for the practical applications of health education during the epidemic process are not developed, but the solution suggestions will develop when continuous communication is maintained (AACU, 2020). The measures taken since the beginning of the epidemic in the Council of Higher Education and the Turkish higher education system have been much more concrete and faster than in many countries. Continuous communication was established with the rectorate and deanships, dynamic processes were carried out through the established Coronavirus Commissions, the decisions taken by both the Ministry of Health and the relevant institutions of the state were followed, and collaborations with local governments were also made.

Taking into account the competencies and achievements of the relevant health program, continuing theoretical courses at all levels through distance education, using online exams as well as alternative ways such as homework and projects, making plans for applied courses according to the university's own location, infrastructure facilities and resources… The solutions suggested from the universities on all these issues during the pandemic era will hopefully improve their ability to provide a kind of different intensive education and will bring different and successful models to the agenda in the future.

Undoubtedly, new models for implementation of health education in the world will develop during the epidemic. Due to the pandemic, many last year students of health programs did not have a chance to see enough range of patients in different clinics. Still many countries let them graduate. But in those countries usually additional measures exist: a master's degree, board exam or additional hands-on courses are mandatory to practice their professional area. However, in countries like Turkey that do not have postgraduate requirements, additional education or board exams for practicing professional area after graduation, alternative supervised health practices could be considered. In Turkey, there is no mandatory board exam for health programs and many health programs' graduates have a right to practice directly after graduation. Supervised health practices can also be considered as a post-graduate period of juniors: Instead of being appointed to the first-line health services with direct compulsory service appointment of medical graduates different alternatives could be suggested: a period of study that will be defined in various tertiary hospitals, together with other physicians, in the clinics such as emergency room, internal diseases, child health, and infectious diseases, as well as family medicine, at least 6 months or more.. Alternatives for nurses and midwifes, who will directly contact with the patient after graduation, may also be suggested: such as completing the period of junior term with supervised health practices in certain centers. It is emphasized by pioneering universities like Harvard University that medical students must complete rotations and patient examinations that are missing due to the epidemic in order to meet the graduation requirements. It is important that graduation is not delayed, but of course, in such a global epidemic, the health of students, patients and staff is much more a priority. Completion of medical and other health students' internships without including COVID-19 verified or suspected patients in the care and support of training with digital patient interviews, field practices by providing personal protective equipment and virtual reality can be evaluated to compensate for the gap in the education (Farber, 2020). Still there are many important issues to be solved for different universities regarding the participation of students in the care of COVID-19 patients.

The epidemic is an experience that will lead us to question the recent trends in higher education, resembling of a crazy race that prioritizes economic concerns in the higher education, research project budgets, lists of ranking agencies, and the number of foreign students. Perhaps it will also provide serious expansions that will change the direction of our perspectives on higher education. The pandemic reminded us all that the most important think is the human being and we need people around. We need people in the campuses to talk, to collaborate, to share ideas, to raise questions… Along with the importance of ethical and moral values in health education, the widespread use of digital opportunities in health service points to brand new horizons. Alternatives need to be developed on how to carry out health education and compensatory training during and after the pandemic era.

While allowing us to bring different possibilities of digital education in our daily life, the ongoing pandemic process will reveal many solutions along with many problems every day.

References

A Pandemic Resource Guide for Dental Education. (2020). ADEA: https://www.adea.org/COVID19-Update/Pandemic_Guide/ [19.05.2020]

AACU. (2020). AACU: https://www.aacu.org/events/webinar-series-quality-equity-and-inclusion-during-covid-crisis [19.05.2020]

AAMC. (2020). AAMC: received from https://www.aamc.org/system/files/2020-05/covid19_Final_Recommendations_05112020.pdf [19.05.2020]

Bırakıp gelenler, devam edenler (Those who leave, the ones who continue). (2020). YÖK Magazine: https://www.yok.gov.tr/Dergi/YOK_Dergi_Sayi_16/index.html#page/40 [19.05.2020]

Coronavirus (COVID-19): advice and support for students. (2020). Oxford University: https://www.ox.ac.uk/students/coronavirus-advice?wssl=1 [19.05.2020].

Coronavirus. (2020). Harvard University: https://www.harvard.edu/coronavirus [19.05.2020].

Coronavirus Response. (2020). Harvard School of Dental Medicine: https://hsdm.harvard.edu/coronavirus-updates [20.05.2020].

COVID-19 Projections. (2020). IHME: http://www.healthdata.org [22.05.2020].

COVID-19, New Coronavirus Disease. (2020). Ministry of Health: https://covid19bilgi.saglik.gov.tr/tr/ [20.05.2020].

Distance Learning Solutions. (2020). UNESCO: taken from https://en.unesco.org/covid19/educationresponse/solutions [15.06.2020].

Farber, O. (2020). *Medical students can help combat Covid-19. Don't send them home.* . Statnews: https://www.statnews.com/2020/03/14/med [15.06.2020].

Final Report and Recommendations for Medical Education Institutions of LCME-Accredited, U.S. Osteopathic, and Non-U.S. Medical School Applicants . (2020). AAMC: https://www.aamc.org/system/files/2020-05/covid19_Final_Recommendations_05112020.pdf [19.05.2020].

General Medical Council. (2020). Information for Medical Students: https://www.gmc-uk.org/news/news-archive/coronavirus-information-and-advice/information-for-medical-students [19.05.2020].

Gibney, E. (2020). *Whose coronavirus strategy worked best? Scientists hunt most effective policies*. https://www.nature.com/articles/d41586-020-01248-1 [15.05.2020].

Harvard University. (2020). Coronavirus (COVID-19): https://www.harvard.edu/coronavirus [22.05.2020].

Interim guidance on medical students' participation in direct patient contact activities: principles and guidelines. (2020). Association of American Medical Colleges: https://www.aamc.org/system/files/2020 [30.03.2020].

John Hopkins Coronavirus Resource Center. (2020). https://coronavirus.jhu.edu [22.05.2020].

Kocak Tufan, Z. (2020). COVID-19. *Journal of Higher Education*. [20.05.2020].

Kocak Tufan, Z. (2020). COVID-19 Diaries of Higher Education during the Shocking Pandemic. *GMJ*, 227-233.

Kocak Tufan, Z., & Kayaaslan, B. (2020). Crushing the curve, the role of national and international institutions and policy makers in COVID-19 pandemic. . *Turk J MedSci* , 495-508.

Lacobucci, G. (2020). Covid-19: medical schools are urged to fast-track final year students. *BMJ*, 368.

London School of Hygiene and Tropical Medicine. (2020). COVID-19: https://www.lshtm.ac.uk/research/research-action/covid-19 [19.05.2020].

Medical Education Guide. (2020). AMA: https://www.ama-assn.org/delivering-care/public-health/medical-education-covid-19-resource-guide [19.05.2020].

National learning platforms and tools. (2020). UNESCO: https://en.unesco.org/covid19/educationresponse/nationalresponses [13.04.2020].

Oxford Medical Students Step Support Fight Against Covid-19. (2020). Oxford University: http://www.ox.ac.uk/news/2020-03-23-oxford-medical-students-step-support-fight-against-covid-19 [13.05.2020].

*Pandemic*Guide. (2020). ADEA: https://www.adea.org/COVID19-Update/Pandemic_Guide/ [14.05.2020].

Past Pandemics. (2020). CDC: https://www.cdc.gov/flu/pandemic-resources/basics/past-pandemics.html

Patel, V. (2020). *Patel V. Covid-19 Is a Pivotal Moment for Struggling Students. Can Colleges Step Up?* . https://www.chronicle.com/article/Covid-19-Is-a-Pivotal-Moment/248501 [14.05.2020].

Radiustours. (2020). Waiting for the Glockenspiel: https://radiustours.wordpress.com/2013/07/23/waiting-for-the-glockenspiel/ [22.05.2020].

Sarac, M. A. (2020). *Preparing a national roadmap for online higher education* . University World News: https://www.universityworldnews.com/post.php?story=20200415120209980 [18.04.2020].

Science in the time of coronavirus. (2020). *Nat Methods*, 355.

Smith, T. M. (2020). *Planning clerkships during COVID-19: Notes from the field*. AMA Medical School Life : https://www.ama-assn.org/residents-students/medical-school-life/planning-clerkships-during-covid-19-notes-field [05.05.2020].

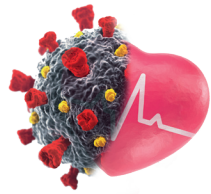
Statement on clinical placements . (2020). Medical Scools Council: https://www.medschools.ac.uk/media/2646/statement-on-clinical-placements.pdf [15.05.2020].

The Chronicle of Higher Education. (2020). Here's a List of Colleges' Plans for Reopening in the fall: https://www.chronicle.com/article/Here-s-a-List-of-Colleges-/248626?cid=wcontentgrid_hp_2 [22.05.2020].

The Chronicle of Higher Education. (2020). Here's a List of Colleges' Plans for Reopening in the fall.: https://www.chronicle.com/article/Here-s-a-List-of-Colleges-/248626?cid=wcontentgrid_hp_2 [13.04.2020].

YÖK COVID-19 Information. (2020). COVID-19 Information: received from https://covid19.yok.gov.tr/AnaSayfa [22.05.2020].

YÖK Distance Education Survey . (2020). YÖK: https://covid19.yok.gov.tr/Documents/AnaSayfa/uzaktan-ogretim-anketi.pdf [22.05.2020].



The Current/Potential Legal Issues in Contract Law and Health Law due to the COVID-19 Pandemic

Pervin Somer

Prof. Pervin Somer

Prof. Dr. Pervin Somer is a Faculty Member of Civil Law Department of İstanbul Okan University. She graduated from Ankara University Faculty of Law in 1982. She completed her Master's Degree at Ankara University and her Ph.D. in Private Law from Istanbul University. She became Associate Professor in 2002 and Professor in 2011. After retiring from Marmara University Faculty of Law, she continued her academic studies as a faculty member at different universities. She is still working in Istanbul Okan University Faculty of Law. She provides consultancy in the fields of Health Law and Mediation Law, Master and Doctorate theses and non-thesis Master's graduation projects. Her mainly working fields are Civil law, Liability law, Health law and Mediation law.

The Current/Potential Legal Issues in Contract Law and Health Law due to the COVID-19 Pandemic

Pervin Somer
İstanbul Okan University
pervin.somer@okan.edu.tr

Abstract
Legal rules are already established rules. Legal structure, while on the one hand, ensures stability and natural predictability of its inherent sanctions, it may be incomplete or inadequate in extraordinary situations, on the other hand. There are certain procedures for enforcement of legal rules; these procedures or the extraordinary conditions of disaster periods might not be suitable for taking quick action. As in the 1999 earthquake, various legal problems have come up in Turkey during the COVID-19 pandemic, which affected the whole world. What is important here is to realize these problems and start searching for a permanent solution.

The pandemic process led to certain social, economic, commercial, national and international problems in the world and in Turkey since the very beginning; these problems have unavoidably transformed into legal problems and a search for a solution was initiated. This study focuses on the current and potential issues occurring in contract and health law due to the COVID-19 pandemic.

Keywords:
COVID-19 pandemic, legal issues due to pandemic, contract law, health law

Introduction

It is common knowledge that the "**Law No.7269 on Measures to be Employed and Aids to be Provided in Case of Disasters Affecting General Living Conditions**" has been updated from time to time. These updates also show that although the Law enacted in 1959 addressed the needs of the period, it was inadequate in subsequent disasters. First of all, there is a need for a current law on disaster situations taking advantage of the use of the technological advancements and contributions of the 21st century. Such a framework Law will also constitute a legal basis for the steps to be taken by the administration, regulations, circulars and directives to be issued in future disasters; thus, the rules concerning the society will be moved away from the debate of legality.

Another issue that has to be stressed is the contradictions in the decisions taken due to the COVID-19 outbreak. Even the Presidential Decisions that have published during the course of the pandemic have naturally been either repeatedly modified or subsequently interpreted. Since disaster periods are characterized by a rapid change in the process, there will be a need to set rules immediately due to the developments until then; then new conditions emerge, which make it mandatory to change this rule as well. The point to be considered here is that there should be a holistic perspective and the impact of the decisions taken on other legal areas should be investigated and evaluated. Otherwise, the arrangements will cause unexpected problems in other legal areas; indeed, our practical experience also confirms these suggestions.

This study will not focus on the theoretical aspects of the following two key topics (Contract Law and Health Law) will not be emphasized. Since the reports shared by other academics will presumably contain theoretical information, we would avoid repetitions and present a solution-oriented perspective.

Legal Issues Encountered in the Field of Contract Law During the COVID-19 Outbreak

Although contracts are considered to be the main subject of the Law of Obligations, they have both private law and public law applications. For this reason, contracts were among the most debated legal issues during the pandemic period. The reason for this is that contracts are considered to be the main subject of the Law of Obligations, on the one hand, and contracts are being used in most fields of the private law, including the Consumer Law, Insurance Law, Commercial Law, on the other hand. However, even the Administrative Law, which is a matter of public law, has been affected at this very point. This is because both high court decisions and the doctrine considers contracts subject to public tenders to have the effects of private law contracts (Günday, 2003: 179).

It cannot be said that there had been legal problems in terms of all contracts during the outbreak; for example, in online shopping, online goods/services contracts, companies have been able to perform their obligations by sending the purchased goods to their respective buyers by courier services.

In some industries, issues were resolved in a short time through regulations. For example, announcements were made about how the airlines would handle passenger ticket refunds. Again, after the removal of the distinction between private and public hospitals as well as after the transformation of hospitals into "pandemic hospitals" by the Ministry of Health, insurance companies included COVID-19 diagnosis and treatments within the scope of private health insurance within the current limits. However, import and export restrictions, broken supply chains as well as the permanent or temporary closure of certain businesses during the pandemic also led to contractual disputes. Therefore, force majeure or impossibility of performance, excessive difficulty of performance, adaptation of contracts and resulting legal consequences cannot be generalized to all contracts.

It is relatively easy to apply the rules that will solve the dispute in lean contracts. However, business contracts are practically more complicated and the parties have experienced more problems than expected. For example, in the case of private school fees where accommodation, meal and tuition fees are paid together, dormitories are emptied, and meal services could not be given in accordance with contractual terms although distance education was made available. It is possible to see these complicated examples in many sectors of commercial life.

Legal Issues

Failure to perform obligations or debtors' delay in performing their obligations (default) emerged as the main legal issues with respect to different types of contracts. The issues debated by lawyers in both the doctrine and in practice can be summarized under the following main headings in terms of contractual responsibility:

a. *Whether the pandemic is a force majeure*
b. *If considered as force majeure, whether the performance of the debt has become impossible*
c. *Situations of non-acceptance of partial performance in the contract*
d. *The debtor's default due to force majeure and the consequences of default*
e. *Excessive difficulty in performance, adapting the contract to new conditions*

The answer to all these questions depends primarily on the clarification of the debate on whether the pandemic will be accepted as force majeure, and there is no reason why an epidemic that affected daily life and business life globally in a very short time should not considered as force majeure. Supreme Court precedents and the doctrine consider epidemic as a force majeure incident. The problem lies in how the force majeure clause is addressed in contracts. A contract:

- Could provide that the debtor will also be responsible in the case of force majeure.
- Could have restricted force majeure clauses.
- Could have unrestricted force majeure clauses.

With respect to the last possibility, it is natural to consider the pandemic as a force majeure incident consistent with court rulings and doctrinal opinions and conclude that the liability of the debtor will discontinue. However, Contract Law should be interpreted in accordance with its meaning and purpose with respect to the other two possibilities. Indeed, there have been no outbreaks that have spread so rapidly and led to such a high death toll and the interruption of social and business life since the Spanish flu. Spanish flu years were too simple to be compared with today in terms of legal, economic and business relations; contracts were also lean contracts during those years. For example, since airlines did not make such high numbers of business flights, there has been no debate on ticket refunds; because there were no private hospitals, no foundation universities or shopping malls, today's important discussion topics corresponds to nothing in the past. These examples can be multiplied.

As a rule of thumb, freedom of contract constitutes the main structure of the Contract Law. The parties can decide on any remaining terms with their free will on the condition that they comply with the other mandatory rules in article 27 of the Law of Obligations. The parties may have undertaken "the responsibility due to the force majeure" especially since the debtors could not imagine, or, like most of us, even dream of, the possibility of a pandemic such as COVID-19 both during the negotiation and execution of the contract.

Moreover, most of the time, the parties do not get professional assistance while drafting the contract, adapting similar contracts in that specific field to their own legal relations. Therefore, in some contracts, the "force majeure"

clause might not be a conscious choice regardless of the possibilities given above. Since the law binds the individuals and parties to the contract by certain principles, principles such as the "honesty" rule, the concept of "equity" and "adapting the contract to new conditions" exist in law for these very needs.

So, what did the parties to the contract contemplate, evaluate and take as example when drafting the "force majeure" clause? They should probably not have been able to imagine a pandemic that would interrupt the entire social life and kill hundreds of thousands of people when defining or restricting force majeure incidents.
It should be remembered that controlled normalization apart from the legal issues arising from the contracts executed before the pandemic, normalization, and a second, perhaps third, pandemic wave predicted by the scientists will expose us to more legal issues than now.

Each concrete contract will create individual cases of issues, and solutions we will find through generalizations will be the sources of new problems.

Our Opinion and Suggested Solutions
Two important issues will come up after the period of lockdown that we have gone through due to the COVID-19 pandemic: economic issues and legal issues. The increased number of legal issues brought before the courts will increase the number of hearings as well as putting extraordinary burden on the courts. What is more, these issues will not only concern the Law of Obligations, but, on top of other contracts executed in other private law contexts, will lead to a burden which cannot be easily addressed. I would like to bring to your attention the difficulty of Consumer Courts addressing the legal issues arising from the contracts executed under the Consumer Protection Law only.

On the other hand, as a rule of thumb, the parties' free will cannot be ignored in the context of private law. Therefore, it would be appropriate to leave settlement primarily to the parties' discretion. Because it is the parties who know the contractual negotiations as well as the conditions underlying the contract best.

The Turkish Law of Obligations made force majeure, impossibility of performance without fault of the parties, impossibility of partial performance, and the debtor's default conditional to certain outcomes, giving the other side of the contract the right to take legal action. When the legal problem between the parties is brought before the courts, for example in case of excessive difficulty of performance, the parties may ask the judge to adapt the contract to the new conditions.

However, it should be emphasized that there is also an option available to the parties through which they can settle their disputes faster, in shorter time and with lower costs, decide taking their interests and needs into consideration when settling their disputes, and also protect their confidentiality: Mediation.

Through mediation, the parties can adapt the contracts to new conditions or have the chance to negotiate once again the matters they have incorporated to the contract and but perhaps did not think much about at that time, and settle their legal disputes based on the principle of willingness/ voluntariness.

If we can take advantage of a more practical solution such as mediation for each concrete contract and each dispute in this upcoming process, the outcomes of which are uncertain, we can both maintain our business relations and contribute to social peace through amicable settlement.

Legal Issues Encountered in the Field of Health Law During the COVID-19 Outbreak

The pandemic, which originated in China, affected the world, and brought the health system to the point of collapse in many countries, or put it under a heavy burden that it cannot handle, saw the implementation of different processes and measures varying from one country to another. As far as we could observe, a large number of patients in the US, which has a health system based on private health insurance, could not receive health care because they had no private health insurance or they had limited coverage while Germany, which still maintains the principle of welfare state, took advantage of public handling of actual health care services, as in the case of Turkey, controlled the process as successful as possible in European countries.

Although Turkey caused the spread of the virus due to delayed decision-making in initial cases that originated internationally (delayed ban on international flights, quarantine practices for citizens returning from abroad or Umrah), it has been one of the countries with the least deaths in the world with its quick and rational decisions thanks to its social security system, a robust health system that has a strong infrastructure, and dedicated medical staff. However, it would not be realistic to conclude that there were no legal problems within the framework of the Health Law.

The "right to health", which is guaranteed under the international conventions to which Turkey is a party, the Constitution and other legislation refers to the right to preventive/protective health care on the one hand, and the right to have access to medical sources, on the other hand.

The health industry is one of the industries that are most affected by the COVID-19 pandemic, both in terms of health care providers and users. It should be underlined that Turkey's greatest advantage during the pandemic has been its highly qualified medical staff. The professional experience and dedicated efforts of the physicians working under the extraordinary conditions of the current health system, which is based on performance, allowed the country to manage this process as much as possible.

However, while physicians and other health care staff provided health care services on the one hand, they became health care recipients by becoming infected with COVID-19 virus, on the other hand, as a result of which some have been treated for a long time while some others have unfortunately lost their lives.

Public hospitals and Training and Research Hospitals and the health care staff in these hospitals undertook the most important part of the heavy burden during the process, then private hospitals were transformed into "Pandemic Hospitals" with the removal of the distinction between public and private hospitals.

long-term prescription periods were extended and long-term prescription medicines were made available directly from pharmacies in order to prevent the suffering of patients due to problems of access to long-term prescription medicines.

Medications used in the treatment of patients infected by the virus are included in the list of covered drugs (Health Practices Communique, HPC).

The Family Health Centers continuing to provide Primary Health Care offered an important advantage, thus resulting in both the sustainability of the health care and preventing the possibility of increased number of patients in Secondary and Tertiary Health Care Institutions, especially in the institutions most of which have been converted into pandemic hospitals. The medical staff at Family Health Centers provided health care services such as diagnosis and treatment, on the one hand, and followed people who were either receiving treatment or under quarantine at their homes, on the other hand.

The Public Sanitary Law No. 1593, which came into force in 1930 and was updated with the addition of new provisions over time, came to the fore as one of the most referenced laws during the pandemic. Although this Law significantly addresses many legal issues during the extraordinary environment created by pandemic conditions, it has been inadequate or opened to discussion from time to time. The clutter of legislation in the field of Health Law caused some problems during this process. The Ministry of Health took certain measures to address these problems, with efforts to fill the gaps with either Presidential Decisions or amendments to Laws and Regulations. The term "emergency" has been redefined, with necessary amendments made promptly in other legislation.

Before moving on to the legal issues and solutions we have identified in the field of Health Law, we will try to give a summary of the pandemic under the title of opportunities/threats, strengths, and weaknesses:

- **Strengths:**
  - *Qualified physicians and health care staff*
  - *Professional experience, dedicated health care professionals*
  - *Presence, experience and equipment of public hospitals and Training and Research Hospitals*
  - *Relatively late onset of the pandemic in Turkey, making up time*
  - *Health security financed by the Social Security Agency*

- **Weaknesses:**
  - *Delayed announcement of the pandemic*
  - *Continuously changing rules in mask distributions and/or sales as well as in the lockdown practice*
  - *Delays in protecting health personnel and providing protective equipment*
  - *Not using the codes recommended by WHO*
  - *Transparency of the process, mistrust about the number of infected and deceased patients reported*
  - *No mobile testing*

- **Opportunities:**
  - *Young, dynamic, dedicated staff*
  - *Infrastructure of the health system, technological investments*
  - *People largely complying with the measures, and behaving discreetly*
  - *Presence of a Scientific Committee, made up of specialists*
  - *Ability to commission mobile testing teams*

- **Threats:**
  - *Continuation of the spread of the outbreak*
  - *Physicians and other health personnel getting infected and dying*
  - *Burnout syndrome in health care professionals*
  - *A second, or even a potential third wave*
  - *Possible change in people's motivation in complying with the measures*
  - *Early normalization calendar taking into account the economic conditions.*

With Respect to Health Management and Organization

Legal Issues

Managerial problems stand out among the legal problems during the course of the spread of the pandemic throughout the country, which the Republic of Turkey witnessed for the first time since its foundation. The Parliament was disabled due to the nature of the Presidential Government System, and

laws that actually had to be enacted by the Turkish Grand National Assembly were adopted by Presidential Decision. The hierarchy of norms has been omitted in some regulations and circulars that have been announced, and the arrangements made are set to be discussed without legal basis.

One other organization that was also disabled was the Turkish Medical Association (TMA), which had no representation in the Scientific Committee. Although it is accepted that the members of the Scientific Committee are naturally members of the TMA, corporate perspective is as important as individual perspective, and critical perspective, which is required from time to time, is also important during extraordinary times.

Even if due to a pandemic, "crisis management" is a different form of management. Although the Scientific Committee was formed, other boards integrated with this Committee were ignored, with a sub-committee formed towards the end of the process. What needs to be emphasized here is the need for an organization other than the sub-committee. Put in a nutshell:

- *A "Scientific Committee" consisting of medical scientists (present)*
- *A "Supreme Board of Law" consisting of jurists specialized in Health Law, and who have a deep knowledge of both fields*
- *An "Economy Supreme Board" should be established since the process has direct impact on national economy, the and these Committees should turn into a tripartite organization integrated to and coordinated with one another. Thus, both the economic aspect and the public health aspect of the decisions taken would be evaluated together and the possibilities that could arise in terms of the Health Law would be evaluated.*

There is uncertainty about how the Scientific Committee was formed as well as the legislation it was based on. It is indisputable that it is made up of highly competent people. However, it remains uncertain whether its decisions are advisory or binding in nature. Another uncertainty is whether the administration complies with the decisions that the Scientific Committee members "recommend", and the reason for this, if it does not. For example, as far as we can follow from the press, the Scientific Committee suggested the implementation of a "curfew" covering everybody with a set period during the early period, but its recommendation had no chance of success mainly for economic reasons. Again, we estimate that Committee was not positive on the opening of workplaces and shopping malls in the first place during the "controlled normalization process".

Ministry of Health

Although it was emphasized in the calls made by the Ministry of Health and the administration that those who need health services should not use pandemic hospitals, the lack of awareness in the society continued to cause problems. While the physical spaces in hospitals could be separated in consideration of

this possibility, they were not; and this facilitated patients who were infected or likely to be infected to be in the same setting with those who wanted to receive other health care services. Considering also that social distancing was not practiced, once can easily establish that this situation poses a great risk.

Taking into consideration global examples, the Ministry of Health has put "Field Hospitals" into service just in case the existing hospitals would prove insufficient. These hospitals are mobile hospitals all over the world. They are put into service during times of disaster and discontinue their services when they are no more needed. However, Turkey started building permanent field hospitals. Here, the risk is: these hospitals will probably continue to function as permanent hospitals after the pandemic is over. Although it seems logical considering that investing in hospitals is expensive, Turkey will still need field hospitals since hospitals will be running at full capacity in another disaster in the near future.

Private and Public Hospital Management

It is an important and correct step to remove the distinction between Private Hospitals and Public Hospitals and transform hospitals into pandemic hospitals. Because this included the facilities of private hospitals, which have highly developed human resources and technological infrastructure, into the system. The actual and/or potential problems under this title include:

- *While all employees should be tested, tests were made only for health care personnel suspected of carrying the virus; others were anxiously waiting.*
- *Physical spaces were not separated in pandemic hospitals, so patients diagnosed with or suspected for COVID-19 and who were admitted for testing purposes and patients who were admitted to receive other health services often shared the same environment, even ignoring social distancing guidelines. This has put both health care professionals and uninfected patients and their families at risk.*
- *Physical conditions that will isolate and protect medical staff were ignored at some private hospitals, leaving particularly the physicians at great risk.*

With Respect to Patient Rights

Legal Issues

The World Health Organization was initially reluctant to declare the outbreak of COVID-19 a pandemic and, in the meantime, the infection rate increased rapidly in Turkey as in other countries. The delay in stopping international flights and closing the airports, the delay in closing border gates as in the case of Iran, and the non-suspension of intercity transportation resulted in infected people infecting healthy people. The most fundamental right, which is the right to health, was negatively affected, and individuals had to get health care.

Except for emergency health services, patients were unable to have their checks (both because they were afraid that the virus would be transmitted or from calls made to not exceed the capacity of the hospitals), with media news of negatively affected patients in certain diseases including cancer.

Practices related to individuals over the age of 65 should not be overlooked: These individuals (the elderly) are faced with violations of the right to health and patient rights, as they often have some age-related diseases. The curfew imposed on this age group and the subsequent limited permits have no legal basis, let alone affect their lives. Often, they were also deprived from activities that would positively affect their treatment, recommended by their physicians. Whether we are going through pandemic or other extraordinary processes, individual rights and freedoms can only be restricted through law. Since the Turkish Grand National Assembly was disabled and the Constitution did not allow the President to decide on issues to be regulated by law in the Presidential Government System, this problem could not be solved and the unlawful practice actually continued.

With Respect to the Rights of Physicians and Other Health Care Staff

Legal Issues

Apart from the problems identified above, financial measures were inadequate, causing discrimination among physicians and other health care professionals.

- *The situation of health care professionals who got infected with COVID-19 virus and lost their lives remains uncertain. "It is a major shortcoming that it is not described as work-related accident. There should be a legal definition of physicians and other health care professionals getting infected, being treated and losing their lives as a result of the disease. In other words, COVID-19 infection should be described as a "work-related accident", and necessary legal arrangements should be done without delay. This will be an indicator of our gratitude to our physicians who work away from their families with dedication, alleviating their "burnout syndrome" to some extent during this gruesome and extraordinary situation we are going through.*
- *Another point that should not be overlooked is the inadequate measures taken for the protection of physicians and other health care professionals. It is common knowledge that most physicians working in pandemic hospitals could not go to their homes with the fear of infecting their families as a result of their colleagues getting infected and dying. Some countries have resolved this accommodation problem by renting or nationalizing hotels that were already vacant. In Turkey, there had been certain negative stories covered by the media, and the Ministry of Health has been late at developing effective solutions at this point.*
- *The shift arrangements of physicians and other health workers, and the different expectations and attitudes of the managers (some of these managers*

are not physicians) who are on the field and who hold administrative posts in the background negatively affected the motivations of health care professionals.

- *It may be necessary for the process, but it should be noted that physicians were prohibited from resigning and using leave. The legal problem here is the norm on which this decision is based. Norms that have to be put into practice under extraordinary conditions must also have legal basis.*

With Respect to Public Health

Considering that pandemics infect individuals one by one, and that the pandemic spread and is likely to spread to the whole society in this manner, it also emerges as a public health issue. Therefore, necessary evaluations will be made briefly under this title.

There was debate on whether the interns would be included in the system in Turkey, but there was no such need as the capacity of the medical staff was not exceeded. However, as a good example, in Cuba, interns are given a short training and assigned to both follow up infected patients and raise the awareness of sick families. In Turkey, this has been undertaken by Family Health Centers, as noted above. However, the staff working at Family Health Centers performed this follow-up task by telephone for patients or people quarantined at their homes. There has been an increase in the number of cases due to the unconsciousness or recklessness of patients or families about the disease as well as their disregard for hygiene and social distancing, with infected or exposed people getting mixed with the society. It can be seen from the increase in the number of cases taken into consideration after announcement of the normalization steps that it is extremely important to inform families and ultimately the society as well as individuals in terms of public health. Giving information rather than raising awareness has been the method mostly adopted in Turkey, and this has often been done through the media.

The period until the second or third wave of the pandemic should be used as a campaign period in this respect, cooperation should be made between NGOs and local governments that will take part in this campaign, and, as in the case of Cuba, interns and students studying at higher education institutions should be included in the process after giving them necessary training about pandemics and awareness-raising methods.

One other risk factor for public health is medical waste. Even people regard the warnings or wear masks and gloves because it was mandatory have thrown those masks and gloves directly in the trash. No studies were carried out and no measures were taken about the collection of these medical wastes. It would also be beneficial to briefly train employees, delivery staff and janitors about public health and pandemics.

In terms of public health, air conditioners may raise risks in the upcoming period. I am of the opinion that it is important to note that special measures need to be taken in places including hospitals and shopping malls where air conditioners are used and due to airways starting to carry passengers, and hotels being reopened.

However, we have limited knowledge about the COVID-19 virus as well as its routes of transmission. Scientists are still discovering and sharing new information on all aspects of the virus.

Our Perspective and Proposed Solutions

Certain solutions should be planned in advance in line with the problematic areas identified above. It remains unclear how the epidemic will progress, how it will affect us with another wave, and/or whether the virus will mutate.

- *Mobile testing teams should be engaged. These tests will create very important data for both tracking the virus that began to slow down and following infected people, on whether the virus began to spread again in the society and for future scientific studies.*
- *Shortcomings of mobile field hospitals and their equipment should be reviewed, and cooperation plans and disaster organization charts should be created indiscriminately with local governments. Considering especially that up to 60% of patients are living in Istanbul and the fact that Turkey is surrounded by seas on three sides -which advantages are shared by Izmir- hospital ships should be planned, and their shortcomings should be handled to make them available for use when necessary. Hospital ships are a practical method that will serve when both the capacity of existing hospitals are exceeded, and on the other hand, maritime transportation can be put into operation in the event of a pandemic that may occur in passenger ships, so that infected patients can be quarantined and treated without landing.*
- *The opinions of expert lawyers, including those working in the field of Health Law, should be sought, and the legal basis for problems noticed or reported during the process should be established, and the legal ground must be prepared for future disaster management.*

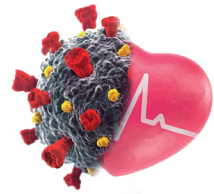
Conclusion

Considering countries such as Spain, Italy, the UK and the USA, Turkey has managed the process with success despite all identified and criticized practices. What is important at this point is making arrangement that are in line with universal principles and human rights and in compliance with international agreements as well as the hierarchy of norms, primarily the Constitution of the Republic of Turkey. It is to make arrangements in accordance with the hierarchy of norms including the Constitution and to eliminate physical, human resources and / or other identified deficiencies. The coming months will offer important opportunities in this regard.

Ignoring these opportunities and the warnings have resulted in increased number of cases in Turkey and world even before the second wave. The normalization steps in the whole world, which have been announced at an early date, also raised the risk of second wave. It will have economic impacts on Turkey and world. It seems that the contradictions in the decisions made or announced by competent authorities will likely have adverse effects in short term.

References

Günday, M. (2003). *Administrative Law*, Revised 8th Edition, Ankara.



COVID-19 Pandemic and Education

Mahmut Özer
H. Eren Suna

Prof. Mahmut Özer

Prof. Dr. Mahmut Özer is the Deputy Minister of Ministry of National Education. He graduated from the Istanbul Technical University (ITU) Electronics and Communication Engineering Department in 1992. He worked as the Rector of Zonguldak Bülent Ecevit University between 28th November 2010 and 4th October 2017, and he was the chairman of the Inter-University Board (ÜAK) between 1st August 2015 and 1st August 2016. In 4th October 2017, he was assigned as the President of the Center for Measurement, Selection and Placement (ÖSYM), and he has been assigned to Ministry of National Education as the Deputy Minister in 8th August 2018. He has published more than 100 articles and books on complex systems, network science, education policy, vocational education and higher education.

Hayri Eren Suna, Ph.D.

Dr. H. Eren Suna is working as the advisor in the Ministry of National Education. He has completed his postgraduate education in Ankara University Measurement and Evaluation Department. He worked as research assistant in Başkent University, and Zonguldak Bülent Ecevit University. He also worked in Center for Measurement, Selection and Placement (ÖSYM). He has articles on educational assessment, psychometry, education policies, and vocational education.

Effects of COVID-19 Pandemic on Education[1]

Mahmut Özer
Millî Eğitim Bakanlığı
mahmutozer2002@yahoo.com

H. Eren Suna
Millî Eğitim Bakanlığı
herensuna@gmail.com

Abstract
COVID-19 has been one of the biggest challenges which education systems have ever faced. Distance education solutions have become the 'mandatory choice' of countries to maintain educational processes in this period. Concurrently, the long-term impact of distance education on educational outputs and suggestions towards minimizing the negative effects have begun to be discussed. Predictions on the potential increase in educational inequalities after COVID-19 pandemic have become prominent in these discussions. The aim of this study is to discuss the effects of transition to distance education and potential increase in educational inequalities in detail. Steps taken by Ministry of National Education (MoNE) in pandemic and the expected educational transformations after the pandemic are also discussed. MoNE has maintained the educational services via distance education through the digital platform EBA and television broadcasting. MoNE has successfully activated the production potential and human resources particularly in vocational education institutions against the pandemic. After the pandemic, it is predicted that transitions towards digital education platforms will be accelerated, and revisions of educational processes based on the new skills demanded by labor market will be critical. The importance of remedial education is emphasized against permanent effects of inequalities in opportunity particularly in disadvantaged schools.

Keywords
COVID-19, pandemic, education, Ministry of National Education, inequality

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

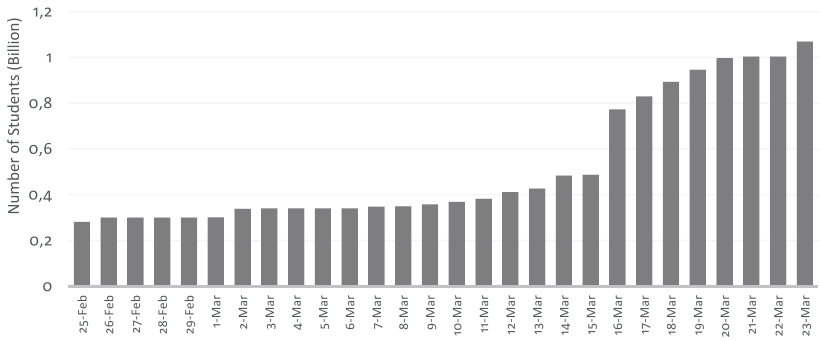
In Wuhan, China, a new type of coronavirus has arisen as a public health issue and has become a global problem. In this period, COVID-19 which has become a global pandemic in a short while due to its highly infectious characteristic and human mobility (WHO, 2020), has led to radical changes in daily life. In the first weeks when virus spread out of China, countries have begun to take precautions to avoid the effects of pandemic, and precautions were strengthened on a large scale after identification of COVID-19 as a global pandemic.

World Health Organization (WHO) has identified the COVID-19 as a 'global pandemic' in 11th March 2020, and has warned all authorities around the world to maximize their precautions against pandemic (WHO, 2020). The common precautions that are taken by the authorities around the world include the lockdown, traveling limitations between cities, regions and countries (OECD, 2020a; WHO, 2020). Lockdowns which are implemented in many countries have become highly effective on many areas, particularly on the labor market and education (OECD, 2020a; 2020b).

Education provides service for the majority of population including students, teachers, parents and other stakeholders. The issue of how the conventional educational processes, which are performed based on the teacher-student interaction in schools, will be maintained during the pandemic has become a challenge for countries (Daniel, 2020). In many countries, educational authorities have decided for school closures to keep the students and their families out of COVID-19 risk (ETF, 2018; OECD, 2020a; 2020b). By the last week of April 2020, the number of students who have been away from schools around the world exceeded to 1.6 billion, and these students constitute the 91% of student population of the world (Micks & Mcllwaine, 2020). The number of students who have been affected by the school closures is given at Figure 1 between the February and March 2020.

As is seen in Figure 1, the number of the students who have been away from schools began to increase in March, and it accelerated and reached to more than 1 billion after 15th March (UNESCO, 2020a). For the first time in history, COVID-19 caused a group of students of this size to be out of school simultaneously and it is difficult to predict how long this process will continue (Micks & Mcllwaine, 2020). The modelling studies which focus on the effect of school closures on the spread of the epidemic show that school closures have led to a decrease in mortality 2%-4% (Viner et al, 2020). Therefore, studies show that school closures have contributed the decreasing of ratio of spread and mortality regarding COVID-19.

Figure 1. Number of Students Affected by School Closures Based on COVID-19 (25th February-23rd March 2020)



Although school closure has been beneficial in preventing from the pandemic, it is costly for countries. Many countries have been caught unprepared for the one of the biggest issues in education history and they have been obliged to maintain education services through distance education (Daniel, 2020). This 'mandatory' transition to distance education has led to deficiencies in adequate discussions on the possible effects of maintaining educational processes with distance education solutions. Although the distance education solutions have been considered as the best option that countries have, they have composed many problems (Daniel, 2020; Morgan, 2020; Shapiro, 2020).

In this study, the advantages and limitations of distance education solutions, which is the mandatory preference of countries in pandemic period, are discussed in a multidimensional perspective. Then, the pandemic period in Turkey and the steps that have been taken by Ministry of National Education (MoNE) in this period are evaluated. Lastly, opinions on the permanent effects of COVID-19 pandemic on education and transitions that will occur after pandemic period are reviewed.

The Mandatory Preference in COVID-19 Pandemic: Distance Education

Distance education was considered as the future of the education especially in 1990s based on the progress in information technologies and easy access of people to information technologies (MacBrayne, 1995). In this period, the number of the people who has technological equipment, particularly computer, in home and access of society to innovative technologies increased substantially (UNESCO, 2002). The use of distance education accelerated particularly in 2000s in USA and UK, and many undergraduate programs began to be carry out through distance education platforms (Duffy et al, 2002; HESA, 2000). In fact, the 96% of the well-known colleges and universities in USA provided online courses, and more than 3 million students participated in at least one of these online courses in 2000s (Allen & Seaman, 2006).

A well-structured distance education system has a great potential to provide many opportunities to the students and teachers (ETF, 2018). Distance education allows people who cannot participate the conventional education due to many challenges to attend the educational processes (Evans & Shortall, 2011; Ginsburg, Sabatini & Wagner, 2000; Schardt, Garrison & Kochi, 2002). Distance education makes education possible for people who cannot participate or avoid participating in the conventional education due to disabilities, regional distances, educational fees, age and such reasons (Hassenburg, 2009; UNESCO, 2002). From the personal perspective, distance education allows people to structure their own learning process and constitutes an appropriate learning environment for people who cannot express their opinions (Hassenburg, 2009; UNESCO, 2002).

Although distance education provides important opportunities, it almost eliminates the social environment and leads to important limitations. The social dimension of learning, which is defined as a "socio-cognitive and interactive process" (Vygotsky, 1978), is restricted in distance education systems (Hassenburg, 2009). Due to the limitations of social environment, students cannot use the effective learning approaches such as peer learning and learning from the questions of other students (Bolton & Unwin, 1996; Cowan, 1995). In this circumstance, students are devoid of the competition and other motivational factors provided by the school interactions, which may lead to decrease in students' motivation (Knebel, 2001).

In conventional education, the action of teaching and the reaction of learning occur concurrently, however, these two components of learning are separated in distance education (Hassenburg, 2009). In this manner, students are more likely to feel isolated and have inadequate support from the instructors (Stevenson, Sander & Naylor, 1996). Based on its structure, participation and performance of people in educational processes is prioritized. Therefore, inclusion of some modern learning approaches such as cooperative learning to educational processes is mostly inadequate in distance education (Duffy et al, 2002).

Instructors in distance education are also separated in two groups depending on the advantages and limitations of distance education (Peterson, 2001). In the first group, educators focus on the opportunities that distance education provides, its promotion on the life-long learning, and they claim that "courses in online education can be satisfactory like the conventional courses", and many students who have diverse learning styles benefit greatly from the distance education. In the second group, educators think that distance education is one-sided and it focuses on the teaching rather than learning, students consider themselves in an isolated position, and cannot have adequate feedback from educators. It is also stated that students can communicate with their teachers much more easily and request for feedback in conventional education, however, this interaction is restricted in distance education. The interaction in online courses is also limited because it is dependent on e-mail and digital platforms, and this circumstance leads to increase in students' concerns about education (Duffy et al, 2002).

The way in which education is delivered to students is also effective on the benefits and limitations of distance education. In 1990s, distance education was provided to students through particular media types that do not necessitate the internet connection such us CD-ROM, recorded video and voice recordings. However, by the 2000s, distance education has become almost entirely available on online platforms (Cejda, 2000). The opportunities provided by the online connection have accelerated the transformation of distance education into online education. As an example of this transition, the ratios of different ways used to deliver distance education to students in the USA in 2002 are given in Table 1.

Table 1. The Ways of Delivering Distance Education in USA (2002)*

The Way of Delivery	**Percentage (%)**
Nonsynchronous internet connection	95
Two-way audio/video	60
One-way previously recorded video	57
Synchronous internet connection	40
CD-ROM	30
Multiple mod packages	21
One-way video/two-way audio	13
One-way audio	11
One-way live video	9
Two-way audio	7

Source: *(Cejda, 2007)*

As seen in Table 1, in America, which is one of the countries where large-scale use of distance education was first introduced, the way of delivering distance education has been mostly online services that required internet connection.

As distance education has become an online education type, the prevalence of distance education has increased, however, it also contributed to gaps widening between students and increased the effectiveness of external factors on learning processes.

As is seen, distance education has been the best preference for countries in COVID-19 pandemic with its structural advantages and limitations. Countries have spent great effort to adjust their education services to distance education solutions, and projects have been carried to increase the quality of distance education (Daniel, 2020; Ozer, 2020a). Although educational services are maintained in pandemic period with distance education, distance education has made the inequalities in education and opportunity visible in many countries. In addition to ensuring the maintenance of the services, the mandatory transition to distance education has made inequalities in education and opportunity visible in many countries (Doyle, 2020; Van Lancker & Parolin, 2020). Current inequalities in conventional education has become stronger and visible in distance education. In this period students have been affected by many factors, particularly digital gap and socioeconomic characteristics, and this circumstance has led to increase in educational inequalities (Block, 2010; Bolt & Crawford, 2000).

The factors that should be considered and the sources of inequalities due to transition distance education in COVID-19 pandemic are evaluated below in detail.

Inequalities in Home Resources and Parents' Education Level

Students need to have required hardware and a stabile internet connection to participate in the distance education (Morgan, 2020). However, 830 million students do not have a computer that they can use in their residences, and 40% of these students do not have a stabile internet connection (UN Education Agency, 2020). Under the scope of inequalities in hardware and internet connection, the most disadvantaged students are those who live in African countries, however, this issue is also valid for European countries and USA (Van Lancker & Parolin, 2020). In Europe, 6.9% of the students do not have an internet connection in their residences, and 2.5% of the students in USA do not have permanent residence (Van Lancker & Parolin, 2020). These statistics show that there has been major inequalities in opportunity between students in accessing distance education.

Access to distance education is strongly related with the home resources that students and their families have (Doyle, 2020; Vigdor & Ladd, 2010). It is a common finding that students who have more technological equipment and intellectual resources, have comparatively higher academic performances (Akyüz, 2014; Batyra, 2017; Parcel & Dufur, 2001). It is probable that home resources, which are important indicators of socioeconomic level of families, have stronger effect on students' performance. Therefore, when the distance education is the only way that students can learn, the possibility of increasing

these inequalities should be considered (Carvalho & Hares, 2020). In pandemic, students from lower socioeconomic levels did not have chance to close the achievement gap with their peers through conventional education.

One of the other possible factor that creates inequality about participation in distance education and academic achievement is the parents' level of education (Doyle, 2020). It is found in studies that students, whose parents have higher level of education, are more supported by their families (Gooding, 2001), and their achievement level is comparatively higher (MoNE, 2018; 2019; OECD, 2019; Ozer & Perc, 2020). While the education level of parents is a determinant factor on the students' academic performance even in the conventional education, this effect is likely to strengthen during the epidemic, when the students cannot interact directly with their teachers.

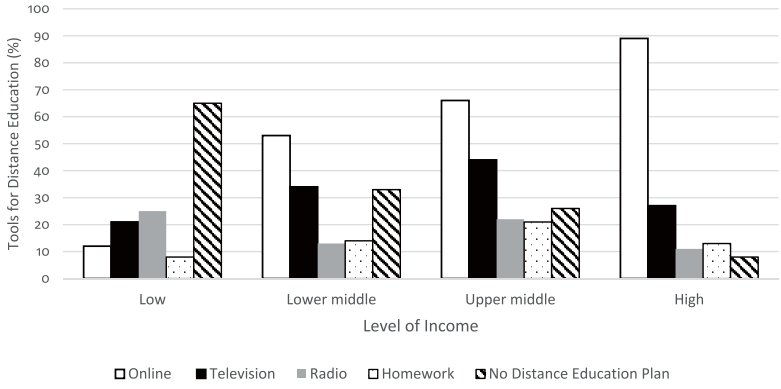
Socioeconomic level has a significant effect on the educational outcomes also in conventional education (Ozer, 2020d; Suna, Tanberkan & Ozer, 2020; Suna et al, 2020). It is clear that students who have more possessions at home and supported more by their families could be more advantageous than other students. Therefore, it is an important factor to consider that students from diverse socioeconomic levels have significant differences in opportunity to access distance education.

Differences between Countries in Infrastructure and Familiarity to Distance Education

Opportunities that are provided to students for accessing distance education change dramatically from one country to another, and this circumstance is another source of inequality (UNESCO, 2000; 2002). In some countries such as the United States, Canada, distance education has been used for a long time, and the required infrastructure has been already available. However, the adequate infrastructure has not been available or partially available in many countries, particularly African countries (UN Education Agency, 2020). While 90% of high-income countries can provide the students distance learning opportunity in one form or another, the percentage of the countries that can provide students distance learning among low income countries is only 29% (Carvalho & Hares, 2020).

The most problematic areas in terms of infrastructure are in Sub-Saharan Africa countries, nearly half of the total population (56 million people) in these countries live in areas where no mobile infrastructure or internet access is available (UN Education Agency, 2020). The main tool of distance education is the radio, which nearly 80% of the people have, in many African countries, particularly sub-Saharan countries. The main instrument of the distance education in many African countries, especially in sub-Saharan countries, is the radio owned by nearly 80% of the population (Burns, 2020; UN Education Agency, 2020). The distribution of instruments used by countries for distance education in the COVID-19 pandemic, and the income levels of the countries are given in Figure 2.

Figure 2. Instruments of Distance Education in COVID-19 Pandemic by Countries' Level of Income*



Source: *(Carvalho & Hares, 2020)*

As is seen in Figure 2, distance education is delivered to students via online platforms, radio, television and homework. The frequency of using online platforms to deliver distance education and the income levels of countries increase concurrently. Additionally, the frequency of using TV broadcasting to deliver distance education is higher in lower middle, upper middle and high income countries in comparison with low income countries. Also, the ratio regarding absence of a distinct plan on delivering distance education in low-income countries is remarkably higher than in higher-income countries. Therefore, the income levels of countries have become decisive on the distance education solutions they have provided, and quality of the educational services in pandemic.

Differences in Digital Literacy Levels of Students

The huge differences in students' digital literacy levels is another issue in distance education. "In assumption that all students can access the distance education, it is known that all students cannot benefit equally from the distance education (Huang & Russell, 2006; Robinson, Wiborg & Schulz, 2018)." Each student is in a unique level of digital literacy; therefore, they cannot take advantage of distance education opportunities at the same level. In other words, the capability of using the digital resources, adopting its processes, learning from digital platforms change from one student to another.

It is found in studies that students with lower level of digital literacy cannot participate the distance education adequately, and they have tendency to leave the education (Journell, 2007; Huang & Russell, 2006). These students can benefit from the peer education and teacher support more in conventional education, however, they are devoid of these kinds of supports in distance education (Makoe, 2012). In this case, the students could not benefit from the distance education adequately or leave the education. As an example to this situation, ratios of course participation have decreased after transition

to distance education in many states in USA, and the amount of decrease is higher for students from lower socioeconomic levels (Goldstein, Popescu & Hannah-Jones, 2020).

Issues in Assessment and Evaluation of Students' Learning

Assessment and evaluation are the fundamental parts of the education, and they have an important effect on students' learning processes (Lemanski, 2011). With the digitalization of learning processes, how to carry out the assessment and evaluation, which are an important part of education, has become an issue (Baleni, 2015; Chaudhary & Dey, 2013). The reason is that the restriction of social environment and direct interaction with the teacher in distance education leads to limitations on the assessment and evaluation (Kearns, 2012). Separating the environments of teacher and education decreases the control of teacher in assessment and evaluation process (Levine, 2005). In distance education, it is very difficult for teachers to use observational assessment methods, give feedback to students and assessment of students' participation in learning (Hannafin et al, 2003).

Assessment and evaluation processes are classified in two groups as formative assessment and summative assessment based on their purposes (Perera-Diltz & Moe, 2014; Rovai et al, 2006). Formative assessment gives deeper feedback on student learning, it allows students to create products, and it allows assessing all learning process as a whole (Rovai et al, 2006). At the same time, formative assessment requires iterative feedbacks from teachers and more student-teacher interaction (Ludwig-Hardman & Dunclap, 2003; Meyen et al, 2002). Formative assessment is mostly conducted through portfolio, product development, case study, and online group discussions and such methods in distance education (Perera-Diltz & Moe, 2014). Therefore, it is difficult to conduct formative assessment adequately with a large group of students in distance education, where teachers and students are not in the same physical environment. Thus, the transition to distance education at all educational levels in a short time during the COVID-19 pandemic raises questions about the usability of formative assessment, which is depending on the iterative feedback of teachers.

Summative assessment, which is also used in distance education, brings many limitations. Summative assessment mostly includes the assessment practices which are applied in the particular periods such as beginning and end of the semesters, and the purpose these practices is to assess to what extent students have achieved the predefined learning outcomes (Rovai et al, 2006). The teachers' ability to control is limited in these assessments which are frequently performed with multiple choice questions or tests with different question types in distance education (Michael & Williams, 2013). The assessment performed in this context provide an appropriate environment for students to use internet resources and academic resources at home without authorization, share test questions online, instant communication during the test and cheating behaviors (Ravasco, 2012; Tan, 2002). Numerous online platforms

are used to prevent cheating behavior of students in order to make summative assessments available in higher education programs which are conducted via distance education. These platforms have the ability to detect the students' identity through various methods, prevent the students' unauthorized use of internet resources and sharing the questions online, and they can review the students' responses for possible plagiarism (Al-Saleem & Ullah, 2014; Mellar et al, 2018). On the other hand, the results of online tests may still be doubtful due to the fact that use of technology and cheating behavior are becoming more complex day by day. Therefore, it is also recommended to use assessment methods that students can complete the test in a flexible timeframe, and they can use resources explicitly within the scope of summative assessment (Williams, 2006).

Assessment of students' vocational skills is another major problem related to measurement and evaluation within the scope of distance education (OECD, 2020c). Unlike the academic education, vocational skills are assessed with the theoretical knowledge of students in vocational education and training (VET). Therefore, students need to show their skills on-the- job for the assessment of vocational skills. Within the scope of VET programs conducted via distance education, assessments can be conducted through the educators in institutions that students enroll on-the-job training, theoretical tests and simulation studies that are applied on computers, video recordings, and e-portfolios (ETF, 2016; NCVER, 2004). However, in case of pandemic, direct observation of students' skills on-the-job is not an option to assess vocational skills. In assessment of students' vocational skills, the evaluator and student have to be in different environments. Unlike cognitive skills, vocational skills require coordination between reasoning and behavior, and this requirement and security risks lead to additional difficulties in creating the conditions required for student performance. Therefore, assessing and evaluating the students' vocational skills in a valid and reliable manner is quite difficult within the scope of distance education.

COVID-19 Pandemic in Turkey and Steps Taken by Ministry of National Education

Turkey has achieved to keep COVID-19 outside its borders for nearly one-month period following the rapid spread of pandemic on an international scale. Ministry of Health and Science Council have followed closely the spreading of pandemic around the world and they have identified the measures and steps to be taken. On the other hand, since 11th March 2020 as the day that first positive case was approved in Turkey, the number of cases has accelerated, and the level of measures taken has been increased. In this section, steps taken by Ministry of National Education (MoNE) to maintain educational services after the spreading pandemic in Turkey are discussed in detail (ETF, 2020; Ozer, 2020a; 2020b; 2020c).

MoNE has prioritized all educational stakeholders, particularly students and parents, and has decided to close schools in all levels of education. In this period, MoNE has negotiated with Ministry of Health and Science Council, and has decided to close the schools until the end of April due to the growing number of COVID-19 cases, and time interval for school closures has extended to end of May. As a result of this decision, education process of approximately 18 million students from primary school to the end of secondary education have been transferred to distance education (Ozer, 2020a).

MoNE has announced that all educational services in COVID-19 pandemic to meet the educational needs of students will be provided through the distance education. MoNE also has decided to deliver the distance education through the Education Informatics Network (EBA), which is the digital education platform of MoNE, and Turkish Radio and Television Association (TRT). Strengthening the infrastructure of EBA has been considered as a necessity and required investments have been made in order to prevent problems in students' access to distance education. The protocols are signed between MoNE and TRT to facilitate the students' access to distance education and allow students to access distance education through television broadcasting. MoNE has produced the course contents for distance education with its human resources in a short time, and the courses are provided to students through EBA and TRT (Ozer, 2020a; 2020b).

MoNE has strengthened VET to become prominent in order to meet the needs of the society and prevent the spread of the pandemic. In this period, R&D activities have been supported and capacities of VET institutions that produce the medical productions have been increased. As a result of R&D activities, highly needed products such as respirators, video laryngoscope, air sterilization machines, contactless thermometers, surgical mask production machine, beds for intense care units, sample handling units have started to be produced in VET institutions. As the most urgent materials, the production of cleaning liquids and disinfectants has been increased in VET institutions, and the cleaning material needs of more than 54000 schools have been met by the productions of VET institutions. Additionally, new products such as face protection shields, disposal overalls and aprons, surgical/medical masks, and masks with N95 standard have begun to be produced in VET institution, their production process has been completed and they have been shared with healthcare professionals in a short time (Ozer, 2020c). Multidimensional and systematic steps taken by MoNE in the last two years underlie the VET institutions' reaching this level of production capacity (Ozer, 2018; 2019a; 2019b; 2020a; Ozer & Suna, 2019; 2020).

Besides the maintaining education services through distance education, MoNE has prepared the psychosocial support programs for students (Ozer, 2020b). Therefore, psychosocial support guides have been prepared for three groups: families, adults and youth. Then, a helpline which is available for the access of students and parents, has been established and psychological counsellors

and special education experts have been assigned to support the students and parents in this helpline (CEDEFOP, 2020). Production of course contents for special education has accelerated, and the number of the contents with sign language option has increased in a short time. Additionally, a mobile application titled as 'I am Special, I am in Education' has developed and released for the use of special education students and their parents.

MoNE has decided to postpone the central examination within the scope of High School Transition System (LGS) from 7th June to 20th June 2020 in order to minimize the effects of pandemic. It was decided that students take the central examination in their own schools to minimize the mobility of students, and the social distance regulations will be followed. Considering the digital literacy differences between students, the content of the central examination is restricted with the first semester curriculum which students have received under conventional education in schools. MoNE has prepared example test booklets twice a month, and a support package that includes approximately 1000 questions and published via official website in order to support the students who prepare for central examination. Solutions of the example questions were recorded and uploaded to EBA TV. "Live courses" practice that allow students to interact live with their teachers through EBA platform during preparation for exam preparation has been developed (Ozer, 2020a).

MoNE has also decided to use the distance education as a tool for teacher training. In this manner, it was planned that teacher training program would be provided through distance education and more than 125000 teachers would participate these training programs. Therefore, distance education has been used by MoNE as an important tool for the professional development of teachers as well as supporting students and parents (Ozer, 2020a).

Transformations in Education after COVID-19 Pandemic

COVID-19 has become effective on many sectors deeply in the world and it has become clear that its effects will be permanent. The current uncertainty in the economy causes firms to minimize their targets in the fields of production and recruitment, the number of people whose income decreased has increased, job losses have become more frequent, and these led to a decrease in purchasing power of people and worsen the economy (Ahmed et al, 2020). The predictions on the impact of pandemic show that COVID-19 will result in a greater loss of $10 trillion in the global economy, and lower-income countries will be more affected by this loss, like other pandemics (Ahmed et al, 2020). However, after many crises, such as post-war periods, the global economy has somehow been recovered, and national economies could adapt to changing conditions. COVID-19 has constituted an important example for determining the recovery process of the global economy and the prioritization in case of such a situation. Education, which is one of the areas most affected by COVID-19, is also one of the areas where the major changes are expected after the pandemic (Strauss, 2020; Sweeney, 2020).

One of major changes expected in education is shifting of many educational processes conducted in traditional school environments to digital environments (Dennis, 2020; KPMG, 2020). In this context, COVID-19 has functioned as a catalyzer for the digitalization efforts in education which increased remarkably in last decade (Tam & El-Azar, 2020). Before the COVID-19 pandemic, global investments for the digitalization in education increased significantly to reach $18.66 billion in 2019, and it is also estimated that the investments in same issue will reach $350 billion in 2025 (Li & Lalani, 2020). The experiences of COVID-19 have approved the importance of the digitalization in education. Therefore, it is predicted that global investments for the digital technologies that will enable transition to distance education will increase further. More studies and investments are expected to be planned for the development of new educational technologies based on 5G, especially in leading countries of digitalization in education such as China, Japan and South Korea (Tam & El-Azar, 2020).

The transition of conventional education processes to digital platforms after COVID-19 pandemic necessitates the supporting of students' and teachers' digital literacy (Bergson-Shilcock, 2020; Moreno & Gortazar, 2020). Structuring the digital literacy as a part of education and ensuring that students and teachers use digital resources efficiently will be critical in the policies for supporting digital literacy. International Association for the Evaluation of Educational Achievement (IEA), which has been performing educational monitoring studies for a long time, has been conducting the International Computer and Information Literacy Study (ICILS) since 2013, and shows that these digital skills will be as important as major education disciplines (IEA, 2019). Therefore, it is predicted that more studies will be conducted to close the gap regarding digital skills between students. The development of teachers' digital skills is also important in increasing the effectiveness of distance education. The development of digital skills is expected to be emphasized more in the training of teachers for their professional and pedagogical development.

COVID-19 has been an important example of how production power and human resources of educational institutions can contribute to cope with a pandemic (Ozer, 2020a; 2020b; 2020c). VET has been one of the major actors in coping with COVID-19 pandemic in Turkey with its capacity in producing the products, which are needed in an emergency, and its ability to adapt R&D activities. VET has made a significant contribution to the manufacturing process with its production capacity, especially through the comprehensive improvement process in the last two years (Ozer, 2019b; Ozer & Suna, 2020). In this context, COVID-19 has clearly showed that educational institutions, particularly VET institutions, can play an active role in meeting the needs of society. The importance of determining the ways of activating production capacity and human resources in the event of a crisis is understood. In this context, preparation of strategy plans will be one of the important outcomes of the post-epidemic period to enable educational institutions to take a more active role in coping with crisis.

It is quite important and necessary to conduct the remedial education after the pandemic especially for the disadvantaged students in terms of access to and benefit from distance education after the epidemic. With the reopening of schools after pandemic, it is critical to support the students from lower socioeconomic levels and those who cannot learn efficiently during distance education due to various restrictions. In this context, currently countries have been planning of implications to support the students' who have academic deficiencies during the distance education (UNESCO, 2020b). These plans, which require a large-scale organization such as rescheduling the teaching process based on health measures, transportation of teachers and students to schools, and supporting students academically and socially, started in many countries in early May 2020 (UNESCO, 2020b). In this respect, COVID-19 showed the importance of countries' strategic planning for the transition from distance education to traditional education.

In global, studies to determine the effects of COVID-19 focus especially on the supply-demand balance in the labor market. It is expected that the possible economic recession and transformation after the pandemic (Ahmed et al, 2020) will lead to considerable changes in the skill sets demanded by the labor market. The transitions in expectations of the labor market should be reevaluated in all educational processes, especially in VET, which has a direct relationship with the labor market. Educational should be revised with the contribution of the sectors by increasing the weight of academic and digital skills in coherent with the expectations of the labor market.

It is vital to maintain the educational services and meet the educational needs of students in times of crises such as COVID-19. In this context, the importance of collaborations between educational institutions and private sector, which could contribute to the education considerably in these extreme conditions, increased during the COVID-19 pandemic. Therefore, it has been seen that cooperation between educational institutions with diverse numbers of students and profiles in a way that they will use all opportunities in common could made a great contribution (Tam & El-Azar, 2020). Private sector leaders such as Microsoft and Google in the USA, Samsung in South Korea, Tencent, Ping An and Alibaba in China have updated their education platforms for open access, they also increased and prioritized their investments in education (Tam & El-Azar, 2020). The cooperation between institutions is also beneficial for non-governmental organizations and think tanks that focus on education. In case of inadequate cooperation between the private sector and governmental institutions, the efforts of institutions are limited to their own stakeholders, and the possible benefit of cooperation is restricted.

References

Ahmed, F., Ahmed, N., Pissarides, C., & Stiglitz, J. (2020). Why inequality could spread COVID-19. *The Lancet: Public Health, 5*(5), e240.

Akyüz, G. (2014). The effects of student and school factors on mathematics achievement in TIMSS 2011. *Education and Science, 39*(172), 150-162.

Al-Saleem, S. M., & Ullah, H. (2014). Security considerations and recommendations in computer-based testing. *Scientific World Journal*, doi: /10.1155/2014/562787

Allen, I. E., & Seaman, J. (2006). *Making the grade: Online education in United States, 2006.* Sloan-Consortium.

Baleni, Z. (2015). Online formative assessment in higher education: Its pros and cons. *Electronic Journal of e-Learning, 13*(4), 228-236.

Batyra, A. (2017). *Gender gaps in student achievement in Turkey: Evidence from the Programme for International Student Assessment (PISA) 2015.* Retrieved from https://aydindoganvakfi.org.tr/static/media/images/files/PISA_ENG.pdf

Bergson-Shilcock, A. (2020, 21 April). COVID-19 shines a spotlight on digital skills: Updates and key questions for advocates and policymakers. *National Skill Coalition*. Retrieved from https://nationalskillscoalition.org/news/blog/covid-19-shines-a-spotlight-on-digital-skills-updates-and-key-questions-for-advocates-and-policymakers

Block, J. (2010). Distance education and the digital divide: An academic perspective. *Online Journal of Distance Learning Administration, 13*(1).

Bolt, D., & Crawford, R. (2000). *Digital divide: Computers and our children's future.* New York: TV Books.

Bolton, N., & Unwin, L. (1996). Encouraging the reflective learner: Distance learning as apprenticeship. In N. Hedge. *Going the distance* (pp.39-49). Sheffield: University of Sheffield.

Burns, M. (2020, 1 April). School, interrupted: 4 options for distance education to continue teaching during COVID-19. *The Global Partnership Blogs.* Retrieved from https://www.globalpartnership.org/blog/school-interrupted-4-options-distance-education-continue-teaching-during-covid-19

Carvalho, S., & Hares, S. (2020, March 30). More from our database on school closures: New education policies may be increasing educational inequality. *Center for Global Development.* Retrieved from https://www.cgdev.org/blog/more-our-database-school-closures-new-education-policies-may-be-increasing-educational.

CEDEFOP (2020). *Note on lifelong guidance and the COVID-19 pandemic: Responses from Cedefop's CareersNet.* Retrieved from https://www.cedefop.europa.eu/files/2020_04_28_llg_and_pandemic_cnet_b.pdf

Cerna, L. (2020, 19 April). *Coronavirus school closures: What do they mean for student equity and inclusion?*. OECD Education and Skills Today. Retrieved from https://oecdedutoday.com/coronavirus-school-closures-student-equity-inclusion/.

Chaudhary, S.V.S., & Dey, N. (2013). Assessment in open and distance learning system (ODL): A challenge. *Open Praxis, 5*(3), 207–216.

Cowan, J. (1995). The advantages and disadvantages of distance education. In R. Howard & I. McGrath. *Distance education for language teachers: A UK perspective* (pp.14-20). Clevedon: Multilingual Matters.

Daniel, J. (2020, 20 April). Education and the COVID19 pandemic. *Prospects,* doi:/10.1007/s11125-020-09464-3.

Dennis, M. (2020, 28 March). How will higher education have changed after COVID-19?. *The University World News.* Retrieved from https://www.universityworldnews.com/post.php?story=20200324065639773.

Doyle, O. (2020, 9 April). COVID-19: Exacerbating educational inequalities?. *Public Policy.* Retrieved from http://publicpolicy.ie/papers/covid-19-exacerbating-educational-inequalities/

Duffy, T., Gilbert, I., Kennedy, D., & Kwong, P. W. (2002). Comparing distance education and conventional education: Observations from a comparative study of post-registration nurses. *ALT-J: Research in Learning Technology, 10*(1), 70-82.

ETF (2016). *Digital and online learning in vocational education and training in Serbia*. Turin: European Training Foundation (ETF) Publishing.

ETF (2018). *Digital skills and competence, and digital and online learning*. Turin: European Training Foundation (ETF) Publishing.

ETF (2020). *Coping with COVID-19: Mapping education and training responses to the health crisis in ETF partner countries*. Turin: European Training Foundation (ETF) Publishing.

Evans, D., & Shortall, T. (2011). Students' views on the advantages and disadvantages of open distance learning versus traditional on-campus learning in a master's degree course for language teachers in a British university. *The Journal of Nursing Studies, 10*(1), 21-30.

Ginsburg, L., Sabatini, J., & Wagner, D. A. (2000). *Basic skills in adult education and the digital divide*. Paris: OECD Publishing.

Goldstein, D., Popescu, A., & Hannah-Jones, N. (2020, 8 April). As school moves online, many students stay logged out. *The New York Times*. Retrieved from https://www.nytimes.com/2020/04/06/us/coronavirus-schools-attendance-absent.html

Gooding, Y. (2001). *The relationship between parental educational level and academic success of college freshmen*. [Unpublished Doctoral Dissertation], Iowa State University.

Hannafin, M., Oliver, K., Hill, J. R., Glazer, E., & Sharma, P. (2003). Cognitive and learning factors in web-based distance learning environments. In M. G. Moore & W. G. Anderson (Eds.). *Handbook of distance education* (pp. 245-260). Mahwah, NJ: Erlbaum.

Hassenburg, A. (2009). Distance education versus the traditional classroom: Comparing the traditional classroom to the virtual one, does being physically present in school make a difference?. *Berkeley Scientific Journal, 13*(1), 7-10.

Higher Education Statistics Agency-HESA (2000). *Higher education statistics for the UK 2000/01*. Retrieved from https://www.hesa.ac.uk/data-and-analysis/publications/higher-education-2000-01

Huang, J., & Russell, S. (2006). The digital divide and academic achievement. *The Electronic Library*, *24*(2), 160-173.

IEA (2019). *Preparing for life in a digital world: IEA International Computer and Information Literacy Study 2018 international report*. Amsterdam: IEA Publishing.

Journell, K. (2007). The inequities of the digital divide: Is e-learning a solution? *E-Learning and Digital Media, 4*(2), 138-149.

Kearns, L. R. (2012). Student assessment in online learning: Challenges and effective practices. *MERLOT Journal of Online Learning and Teaching, 8*(3), 198-208.

Knebel, E. (2001). *The use and effect of distance education in healthcare: What do we know?* Operations Research Issue Paper 2(2). Chevy Chase, MD: Published for the U.S. Agency for International Development (USAID) by the Quality Assurance Project.

KPMG (2020, 8 April). *COVID 19: How the coronavirus could transform higher education*. Retrieved from https://home.kpmg/au/en/home/insights/2020/04/coronavirus-covid-19-education-sector-transformation.html

Lemanski, C. (2011). Access and assessment? Incentives for independent study. *Assessment & Evaluation in Higher Education. 36*, 565–581.

Levine, S. J. (2005). Evaluation in distance Education. In S. J. Levine (Ed.). *Making distance education work: Understanding learning and learners at a distance* (pp. 43-61). USA: Learnerassociates.net LLC.

Li, C., & Lalani, F. (2020, 29 April). The COVID-19 pandemic has changed education forever. This is how. *World Economic Forum Blogs*. Retrieved from https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

Ludwig-Hardman, S., & Dunclap, J. C. (2003). Learner support services for online students: scaffolding for success. *International Review of Research in Open & Distance Learning, 4*(1), 1-15.

MacBrayne, P. S. (1995). Rural adults in community college distance education: What motivates them to enroll?. *New Directions for Community Colleges, 90,* 85-93.

Makoe, M. E. (2012). *Bridging the distance: the pedagogy of mobile learning in supporting distance learners.* Intech Open Publisments, doi:/10.5772/48079

MoNE (2018). *2018 Liselere Geçiş Sistemi (LGS): Merkezi sınavla yerleşen* öğrencilerin *performansı.* Eğitim Analiz ve Değerlendirme Raporları Serisi No:3. Ankara: MEB.

MoNE (2019). *2019 ortaöğretim kurumlarına ilişkin merkezi sınav.* Eğitim Analiz ve Değerlendirme Raporları Serisi No:7. Ankara: MEB.

Mellar, H., Peytcheva-Forsyth, R., Kocdar, S. *et al.* (2018). Addressing cheating in e-assessment using student authentication and authorship checking systems: teachers' perspectives. *Int J Educ Integr, 14,* doi:/10.1007/s40979-018-0025-x

Meyen, E.L., Aust, R. J., Bui, Y. N., & Isaacson, R. (2002). Assessing and monitoring student progress in an e-learning personnel preparation environment. *Teacher Education and Special Education, 25*(2), 187-198.

Michael, T. B., & Williams, M. A. (2013). Student equity: Discouraging cheating in online courses. *Administrative Issues Journal: Education, Practice, and Research, 3*(2), doi:/10.5929/2013.3.2.8

Micks, J., & Mcllwaine, J. (2020, 20 April). Keeping the world's children learning through COVID-19. *UNICEF.* Retrieved from https://www.unicef.org/coronavirus/keeping-worlds-children-learning-through-covid-19

Moreno, J. M., & Gortazar, L. (2020, 8 April). Schools' readiness for digital learning in the eyes of principals: An analysis from PISA 2018 and its implications for the COVID19 (Coronavirus) crisis response. *World Bank Blogs.* Retrieved from https://blogs.worldbank.org/education/schools-readiness-digital-learning-eyes-principals-analysis-pisa-2018-and-its

Morgan, H. (2020). Best practices for implementing remote learning during a pandemic. *The Clearing House, 93*(3), 134-140.

NCVER (2004). *Exploring assessment in flexible delivery of vocational education and training programs.* Australia: NCVER Publishing.

OECD (2019). *PISA 2018 results: What students know and can do (Volume I).* Paris: OECD Publishing.

OECD (2020a). *A framework to guide an education response to the COVID-19 pandemic of 2020*. Paris: OECD Publishing.

OECD (2020b). Education responses to COVID-19: Embracing digital learning and online collaboration. *OECD Policy Responses to Coronavirus (Covid-19).* Retrieved from https://www.oecd.org/coronavirus/policy-responses/education-responses-to-covid-19-embracing-digital-learning-and-online-collaboration-/

OECD (2020c). *VET in a time of crisis: Building foundations for resilient vocational education and training systems.* Paris: OECD Publishing.

Ozer, M. (2018). The 2023 Education Vision and new goals in vocational and technical education. *Journal of Higher Education and Science, 8*(3), 425-435.

Ozer, M. (2019a). Background of problems in vocational education and training and its road map to solution in Turkey's Education Vision 2023. *Journal of Higher Education and Science, 9*(1), 1-11.

Ozer, M. (2019b). Reconsidering the fundamental problems of vocational education and training in Turkey and proposed solutions for restructuring. *İstanbul Üniversitesi Sosyoloji Dergisi, 39*(2), 455-473.

Ozer, M. (2020a). The Contribution of the Strengthened Capacity of Vocational Education and Training System in Turkey to the Fight against Covid-19. *Journal of Higher Education,* doi:10.2399/yod.20.726951.

Ozer, M. (2020b). Educational policy actions by the Ministry of National Education in the times of COVID-19 pandemic in Turkey. *Kastamonu Education Journal, 28*(3), 1124–1129.

Ozer, M. (2020c). Vocational education and training as "a friend in need" during Coronavirus pandemic in Turkey. *Bartın University Journal of Faculty of Education, 9*(2), 1–7.

Ozer, M. (2020d). What PISA tells us about performance of education systems? *Bartın University Journal of Faculty of Education, 9*(2), 217-228.

Ozer, M., & Perc, M. (2020). Dreams and realities of school tracking and vocational education. *Palgrave Communications, 6,* 34.

Ozer, M., & Suna, H. E. (2019). Future of vocational and technical education in Turkey: Solid steps taken after Education Vision 2023. *Journal of Education and Humanities, 10*(20), 166-192.

Ozer, M., & Suna, H. E. (2020). The linkage between vocational education and labor market in Turkey: Employability and skill mismatch. *Kastamonu Education Journal, 28*(2), 558-569.

Parcel, T. L., & Dufur, M. J. (2001). Capital at home and at school: Effects on student achievement. *Social Forces, 79*(3), 881-911.

Perera-Diltz, D., & Moe, J. (2014). Formative and summative assessment in online education. *Journal of Research in Innovative Teaching,* 7(1), 130-142.

Peterson, P. W. (2001). The debate about online learning: Key issues for writing teachers. *Computers and Composition, 18,* 357-70.

Ravasco, G. G. (2012). Technology-aided cheating in open and distance e-learning. *The Asian Society of Open and Distance Education, 10*(2), 71-77.

Robinson, L., Wiborg, O., & Schulz, J. (2018). Interlocking inequalities: Digital stratification meets academic stratification. *American Behavioral Scientist, 62*(9), 1251-1272.

Rovai, A. P., Ponton, M. K., Derrick, M. G., & Davis, J. M. (2006). Student evaluation of teaching in the virtual and traditional classrooms: A comparative analysis. *Internet and Higher Education, 9*(1), 23−35.

Schardt, C. M., Garrison, J., & Kochi, J. K. (2002). Distance education or classroom instruction for continuing education: Who retains more knowledge?. *Journal of the Medical Library Association, 90*(4), 455-457.

Shapiro, E. (2020, March 15). New York City public schools to close to slow spread of coronavirus. *The New York Times.* Retrieved from https://www.nytimes.com/2020/03/15/nyregion/nyc-schools-closed.html.

Stevenson, K., Sander, P., & Naylor, P. (1996). Student perceptions of the tutor's role in distance learning. *Open Learning, 11*(1), 22-30.

Strauss, V. (2020, 4 May). Students wearing masks return to school as some countries start to reopen during Covid-19 crisis. Here's what that looks like. *The Washington Post.* Retrieved from https://www.washingtonpost.com/education/2020/05/04/students-wearing-masks-return-school-some-countries-start-reopen-during-covid-19-crisis-heres-what-that-looks-like/

Suna, H. E., Tanberkan, H., Gür, B. S., Perc, M., & Ozer, M. (2020). Socioeconomic status and school type as predictors of academic achievement. *Journal of Economy, Culture and Society, 61*(1), 1-24.

Suna, H. E., Tanberkan, H., & Ozer, M. (2020). Changes in literacy of students in Turkey by years and school types: Performance of students in PISA applications. *Journal of Measurement and Evaluation in Education and Psychology, 11*(1), 76-97.

Sweeney, N. (2020, 7 April). When the Covid-19 crisis finally ends, schools must never return to normal. *The Guardian.* Retrieved from https://www.theguardian.com/education/2020/apr/07/when-the-covid-19-crisis-finally-ends-uk-schools-must-never-return-to-normal

Tam, G., & El-Azar, D. (2020, 13 March). Three ways the coronavirus pandemic could reshape education. *World Economic Forum.* https://www.weforum.org/agenda/2020/03/3-ways-coronavirus-is-reshaping-education-and-what-changes-might-be-here-to-stay.

Tan, S. (2002). Prevents for cheating in exams. *Education and Science, 26*(122), 32-40.

UN Education Agency (2020, 21 April). Startling disparities in digital learning emerge as COVID-19 spreads: *UN Education Agency.* Retrieved from https://news.un.org/en/story/2020/04/1062232

UNESCO (2000). *Distance education for the information society: Policies, pedagogy and professional development; Analytical survey.* Moscow: UNESCO/IITE.

UNESCO (2002). *Open and distance education: Trends, policy and strategy considerations.* Paris: UNESCO Publishing.

UNESCO (2020a, 12 March). *COVID-19 educational disruption and response.* Retrieved from https://en.unesco.org/covid19/educationresponse

UNESCO (2020b). *Preparing the reopening of schools.* Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000373401

Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: A social crisis in the making. *The Lancet: Public Health, 5*(5), doi: https://doi.org/10.1016/S2468-2667(20)30084-0

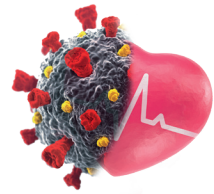
Vigdor, J. L., & Ladd, H. F. (2010). *Scaling the digital divide: Home computer technology and student achievement.* NBER Working Paper No. 16078. Retrieved from https://www.nber.org/papers/w16078.pdf

Viner, R. M., Russel, S. J., Crocker, H., … *et all* (2020). School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. *The Lancet Child & Adolescent Health, 4*(5), doi: 10.1016/S2352-4642(20)30095-X

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Williams, J. (2006). The place of the closed book, invigilated final examination in a knowledge economy. *Educational Media International, 43*(2), 107–119.

World Health Organization-WHO (2020). *COVID 19-Timeline.* Retrieved from https://www.who.int/news-room/detail/27-04-2020-who-timeline---covid-19



Opportunities and Risks in Higher Education in the Postpandemic Period

Çağrı Erhan

Şenay Gümüş

Prof. Çağrı Erhan

Prof. Çagrı Erhan was graduated from the International Relations Department in the Faculty of Political Science at Ankara University. He has completed his master's studies in Ankara University in 1996 and his PhD degree in Hacettepe University in 2000. He is one of the first scholarship holders of the joint domestic and abroad scholarship program of the Turkish Academy of Sciences. He earned the title of Associate Professor in 2003 and the title of Professor in 2009. Prof. Erhan was a fellow or guest professor in Georgetown, Tel-Aviv, Tokyo Chuo, TOBB ETÜ and Bahcesehir Universities while he was the coordinator of many research projects which were funded by European Union, TUBITAK, Ministry of Youth and Sports and Ankara Development Agency. He was appointed as the Rector of Istanbul Kemerburgaz University (goes with the name of Altinbas University since 2017) in June 2015. He was selected as a member of the Presidential Security and Foreign Policy Committee in October 2018. He has many domestic and international publications in Turkish Foreign Policy, Political History and International Relations.

Şenay Gümüş

Şenay Gümüş had her bachelor's degree in International Relations at Istanbul Kultur University in 2006. Later, she finished her master's studies in European Politics and International Relations in the Institute of European Union at Marmara University. She has started Ph.D. in 2017 at Altinbas University and she continues her studies. She works as the Head of the International Office at Altinbas University since 2011.

Opportunities and Risks in Higher Education in the Postpandemic Period[1]

Çağrı Erhan
Altinbas University
cagri.erhan@altinbas.edu.tr

Şenay Gümüş
Altinbas University
senay.gumus@altinbas.edu.tr

Abstract
In the first half of the 2020, we all have witnessed the measures taken to stop the spread of the novel Coronavirus which causes the COVID-19 disease and slow down the pandemic in almost the whole world. One of the most significant measures which was taken to prevent gatherings in public spaces is to stop in person education altogether and move education into digital platforms. On the other hand, in the second half of the 2020, we expect to observe a controlled normalization process until a vaccine is found. Considering that until a vaccine is found, the pandemic will keep affecting people and it will take time to turn back into regular social life, higher education institutions are also expected to adopt into this controlled social life which will last a while longer and keep increasing its educational and scientific activities in this environment. Although, it is still not certain how the higher education institutions will take shape and take its place in the "new normal", it is possible to say that there are many risks and opportunities waiting for the higher education institutions. While developments in distance and digital learning may be considered as a big opportunity for the universities, travel restrictions, economic stagnation, problems faced in distance learning and obstacles which was encountered in the internationalization process of higher education may be considered as ominously awaiting risks for the higher education institutions.

Keywords
Pandemic, Higher Education, Internationalization

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

As higher education does not serve a basic need of the human beings, in a crisis, it is usually suspended and not seen as an essential phenomenon until the things are back to normal. In this sense, it seems evident that the COVID-19 pandemic, which affected the whole world from the beginning of 2020, will prevent the higher education to be conducted as usual. The global pandemic affected the educational processes everywhere in the world adversely. UNESCO's report which was announced in March 13, 2020 shows that, in 188 countries and in all the educational cycles, education of 91,3% of all the students (which is 1,576,021,818 students in total) are interrupted (UNESCO, 2020). Hence, it is quite apparent that we are in need of new adjustments to improve the sustainability and continuity of education in the world.

In order to continue higher education, the higher education institutions should be able to function in crisis situations and the education that they provide should be found acceptable by both the lecturers and the students. At this point, the experience that we acquired through the global pandemic is a valuable opportunity to take lessons from for the higher education institutions in order to be prepared to continue education in all kinds of crisis by planning adequate education and set up a substructure for the academics and students to conduct education and research in a safe and healthy environment. In this sense, the higher education institutions which take the lessons from the pandemic and put forward the necessary adjustments in a timely manner will shape the future of the higher education in the world.

Risks and Opportunities

When the novel coronavirus originated in China and spread worldwide the COVID-19 disease was named as a global pandemic by the World Health Organization. At that point, many higher education institutions unilaterally

decided to close their campuses and continue their education in online platforms. Afterwards, in many countries like Turkey, education was first suspended by the regulatory bodies and later decided to conduct education in online platforms by any means necessary. On the other hand, while many universities did not have the necessary infrastructure to continue education online, the academics did not have the experience in distance learning tools and materials. Although some faculty members managed to start teaching in online platforms like Google Classrooms, WebQuest and Adobe Connect, many other academics have not even heard of those platforms before and they needed in-service training and time to adjust the online teaching systems (Toquero, 2020). Thus, one can say that the first distance learning experience of many higher education students was just chaotic. At the same time, many students were only used to the formal education and did not have any distance learning experience, it was also not an easy process for them to attune. After receiving the distance education, the process of assessment and evaluation created a complication as well. As many lecturers are used to relying on traditional paper examination systems in assessment and evaluation, topics of examination security, management, fairness, and ethics became to be the matters of discussion both among the students and academics.

On the other hand, since, hundreds of millions of students and lecturers started to use internet and online education tools suddenly, it was inevitable to face connection problems everywhere in the world. Many countries did not have the online infrastructure to handle the overload. Demand for the online education tools and systems were skyrocketed and software companies were swamped. Furthermore, prices of the online education tools increased by almost 75 percent and it was difficult for many higher education institutions, especially in countries where they are suffering from economic stagnation, to obtain enough of the distance learning tools. As the libraries were closed, students could not use libraries and paper recourses in their studies and research. Although many universities, libraries and publications opened their online databases for public use for free of charge, all the stakeholders of higher education could not benefit from those resources equally.

Besides education, maintaining the academic study and research during the global pandemic was proven to be a challenge for the higher education institutions. As the campuses of many universities are closed and imposed lockdowns in some countries, most of the academic studies and research projects came to a halt because of the global pandemic. Although, support for the studies on the novel coronavirus that causes the COVID-19 disease and research on the vaccine and treatment is mostly provided by the universities, protocols to provide continuance to the other research and study areas for the global pandemic circumstances were not formed (Govindarajan, 2020). This is ominous for the maintenance of the scientific development. Many research projects were suspended as the laboratories and clinics are closed. Many experiments that was being conducted were left unfinished. Field studies have been pared to the bone. Many universities which were running social

responsibility projects together with the domestic industrial enterprises had to slow down or stop their projects altogether. As it is not known how long we will need to lead our lives in these conditions of the "new normal" universities need to figure out how they will continue with their research and social missions.

The global pandemic also ineradicably affected the internationalization of higher education processes in a negative manner. International mobility for education which came to a stopping point due to the global pandemic, carries the risk of being the number one area which was affected the most by the pandemic. Mobility of the students and the faculty totally stopped since many countries sealed their borders. Many of the international joint programs decided not to admit students in the academic year of 2020-2021 because of the uncertainty of the pandemic situation. Many regulatory bodies and universities made legislative changes in order to facilitate transfer into the higher education institutions in their own countries for the local students who were studying abroad. In the meanwhile, many universities decided to continue education via distance learning, it was expected of the international students to continue their education in their own countries, without traveling.

Table 1. Top 1000 universities in the world which announced that they will continue education with distance learning in the fall semester of 2020-2021 Academic Year
(As of June 2020, the number of the universities which will continue education online are increasing)

Country	**University**
United States of America	California State University
	Harvard Medical School
	Wayne State University
	Northwood University
	Boston University
Canada	McGill University
	University of British Colombia
	University of Ottawa
United Kingdom	University of Cambridge
	University of Manchester

Source: *Data collected from the announcement pages of the university websites.*

Furthermore, International mobility or scholarship programs are either suspended or indefinitely postponed. As international faculty members are not able to travel, they can take part in the online education, but they are not able to contribute to the international joint research projects apart from the exceptional cases. Although we were able to grow the international education in quantity in the last decades, we had the opportunity to see how fragile it is in the sense of sustainability through the pandemic. In this sense, we face the risk of localization in education if we do not build internationalization processes which can survive even in a global pandemic.

On the other hand, the economic stagnation which is looming on the horizon after the pandemic is more important and vital than all the above-mentioned issues. Because, a significant portion of the whole students in the world study by paying tuition fees to the private or foundation universities or other higher education intuitions which continue functioning with tuition income. Even if the students study tuition free in another country, they will have to spend money at least for the basic living expenses. It is a gospel truth that education-related expenses are the ones that are waived the first in an economic crisis. Thus, it is highly probable that many of the current higher education students will have to suspend or stop their education altogether in a case of economic constriction. It is only rational to expect that there will be a decrease in the number of freshman students who will join higher education abroad. On the other hand, among the students who are still able to afford higher education, there is a gowning expectation to pay less tuition fees for distance learning than formal learning. Responding to this legitimate expectation will make income loss inevitable for the higher education institutions. When we add the contraction in the student mobility in general, it is only logical to expect that higher education institutions will downswing in the next academic year (Govindarajan, 2020).

When we consider the fact that university life is not all about academic studies and research but it is also an important asset in the social and physical development of the students, while the university campuses are closed, millions of students who have been carrying cultural, social, artistic and athletic activities in the universities had to stay idle in those areas. Although some activates could be moved to the online platforms, many students were not able to continue their extra-curricular activities during the pandemic.

If we imagine the situation as a chain reaction, the decrease in the number of local and international students who will continue their higher education and moving the education in distance learning tools will be followed by a decline in income of the universities and cause them to cut staff and impose budgetary savings and skimp on research and development. In the following years, except the universities which are located in the countries where there are imposed measures by the law about the share of research funds in the university budgets, like Turkey, we will witness widespread cuts in research funds in the universities in the United States and in the European Countries. Many universities will choose to employ the minimum number of academic staff to carry out the distance learning. In recruiting international faculty members, cost will be a determining factor along with academic merit and skills. As we do not know how long we shall continue only with the distance learning, universities tend to save on the necessary space for formal education and the administrative staff to maintain the campus space which is no longer in use, due to pandemic and distance learning. This also means that on campus jobs which are usually offered to the international students for them to earn some of the educational expenses that they are bearing, will no longer be available to them.

Finally, many countries send their citizens abroad for education, especially for postgraduate studies, with the funds that they spare from their national budget. The global pandemic and the economic stagnation that it causes are expected to reduce the national funds which are used for educational purposes. Counties which provide scholarships for students from abroad are also expected to reduce their scholarship budgets for the same reasons.
Alongside those risks, there are also opportunities for higher education institutions in this global pandemic. The pandemic provided a chance to make the distance learning widespread and become an essential part of the education. In order to turn this chance into and opportunity, universities should make use of the lessons learned from their distance learning experiences of the spring semester of 2019-2020 academic year and shape the applications and update their educational plans.

Nevertheless, the pandemic that we are experiencing today is not a brand-new phenomenon. In the years of 1918-1919 we have experienced a global pandemic which was called the Spanish Flu. In the spring of 2009, a novel influenza A (H1N1) virus emerged. In the meanwhile, there were local contagious diseases that affected a significant number of people like measles, Ebola and SARS. During those pandemics many changes and irregularities in higher education were recorded and published (Emekci, 2010) (Brawley, 2020). During the AIDS pandemic which mainly affected the African continent, universities were first seen as a source of infection and then considered as a source of hope and healing (Katjavivi, 2003). In this sense, the most important conclusion that we come up with considering the pandemic experiences that we faced throughout the history, the universities should be prepared for all kinds of diseases and pandemics.

In 1918, as the treatment options were fairly limited to cope with the Spanish Flu, quarantine was proven to be the most effective public health measure which can be taken at the time. Hence, we know that many universities suspended their education for one semester and the ones which did not suspend a whole semester, prolonged the summer or spring breaks in order to prevent contagion. On the other hand, while education continue, many classes were cancelled because of the infected lecturers. In the meanwhile, measures were taken in order to limit the social interactions as much as possible. For example, varsity sport teams played their games without an audience or the games were cancelled altogether (Brawley, 2020). However, we can say that the measures that were taken in order to prevent the infection to spread, were not very effective when we consider the number of students who lost their lives because of the Spanish Flu. As there were not distance learning tools back in 1919, the most important experiences of the Spanish Flu that we can take lessons from are in the measures imposed in order to limit the social interactions on campus and limitations imposed on the number of students which can be present in a given classroom in order to create social distancing.

A survey which was conducted among the students and the staff members of the universities in Australia and New Zealand where H1N1 virus has largely been affected, shows us the fact that the awareness on the pandemic was considerably low among the students and they tend to show resistance even to a basic lifestyle change in order to protect them from the disease. Despite all the warnings, the ratio of the students who acquired the habit of regular hand washing was only 20 percent (Van, 2010) . In this sense, although the awareness towards the COVID-19 pandemic is considerably higher today, it is important to consider the possibility of students resisting the basic lifestyle changes and refusing to acquire new habits for health reasons. In the same incident, universities in the United States started the academic year of 2009-2010 with extensive crisis management plans and it was seen that they were basically relied on their online education infrastructure for the continuity of education. However, universities do not only provide education but also provide food and accommodation to its students (Emekci, 2010). Planning further measures for the universities to continue their services outside education is essential for them to continue with their services and social life on campus.

Further than to those, student reactions to the changes in the universities that we have witnessed with the break of the COVID-19 pandemic and the limited academic studies on the field showed that what we know about the distance learning was completely changed when so many students moved their education to distance learning. Those studies mostly show the negative reaction of the students to the distance learning, the effects of it on the quality of education and how the internationalization on higher education is interrupted during the process. A research which was conducted in the Peking University, which was teaching online longer than the universities from the other countries as the pandemic was originated in China, shows us that most of the students (60 percent of them) were spending most of their studying time with the in-class activities in order to get a passing grade. Which means that students tended to learn more by listening to the lecturers in the classroom. Because of that, the process of distance learning during the pandemic is being carried out with the students who are not used to learn through out of class activities which is the most important part of learning online (Bao, 2020).

As many universities moved their education to the online platforms only within a couple of days, the educational materials and visual aids could not be redesigned in order to comply with the distance learning in the pandemic. This way, we could also see that the curricula and class schedules which were designed for the formal education where concentration of students could be attracted through gestures and facial expressions of the lecturers, were not as effective in distance learning settings. In this sense, redesigning the teaching aids and reorganizing teaching by changing the difficulty level, amount of information and duration of teaching may be beneficial to make distance learning more effective. Furthermore, it can make a difference if the students and lecturers are encouraged and guided to develop new ways of teaching and learning which are more compatible with the distance learning settings

(Bao, 2020). Students become isolated during the online education and usually choose not to ask for assistance even when they need the most. Our assessment and evaluation methods are also limited to the ones that are designed solely for the formal education. In this context, we teach the students online, but we evaluate their performances in a traditional way. This situation is widely considered as unfair by the students and it creates an adverse opinion towards distance learning among the students.

It seems that, in the light of all the experience that we gathered during the pandemic, the precautions that they will take in order to make the distance learning an inseparable part of the formal learning is the biggest challenge and opportunity for the universities today. If universities will manage to keep distance learning up and running even after the pandemic, it will be a great opportunity to make the students who do not have the financial means to support their formal education to join the higher education with lower costs. Especially in economic constriction, this may be a relieving source of income for many universities which will be struggling financially. If the technical difficulties and insufficient infrastructure which were experienced during the pandemic as the universities were caught unprepared are fixed, universities will be able to teach tens of thousands of students all at the same time. Students who could not join a university abroad due to visa issues or the students who had to interrupt their education due to health concerns during the pandemic may be able to join their planned education. Additionally, it will be an opportunity for the students to improve their self-learning skills which formal education does not specifically encourage. It is also a gain as it improves the learning opportunities for the students to be able to reach the educational materials and lectures of the distance learning as they are recorded and made available for the students to be benefited at a later date. With the result that, the process that we are going through by the necessity because of the pandemic, made us to climb many psychological barriers and gave us the opportunity to show that distance learning does not necessarily mean poor learning.

With all being said, we should keep in mind the fact that the distance learning cannot totally substitute the formal learning. The most important reason for it is that practical courses cannot be conducted with the same productivity and some courses can only be taught through practical applications. Besides, university life is not only about teaching, social and extracurricular activities are an important part of the higher education. Work placement and co-op projects which give the opportunity to learn through experience can only be affective as a part of the formal education. As Vijay Govindarajan puts it in his article the best, although Amazon started the online commerce 30 years ago, e-trade had a share of only 9 percent of all the retail carried out in the United States in 2019 (Govindarajan, 2020). Thus, it will not be a clever planning to think that e-learning will replace the formal learning all together. In this sense, the most important step that the universities must take is to manage the return of the students and staff to the campus while ensuring their safety and health and be prepared not to totally interrupt the formal learning in

a pandemic or any other kinds of crisis in the future. In order to do that, classrooms and common areas should be redesigned based on the rules of social distancing, the food and accommodation services should be restructured accordingly, and health and hygiene conditions should be improved and made sustainable even after the pandemic. For the universities which could manage to do all of them, not only the educational infrastructure, but also the whole higher education experience will become sustainable and uninterrupted under any circumstances.

The most important benefit of managing all these for the universities is the ability to conduct academic studies and research, which are usually overlooked in a crisis, under any circumstances. Interrupting education because of a pandemic also means interrupting academic research and scientific development. Especially in economic stagnation, interrupting research and development only deepens the economic crises and creates a vicious cycle.

The Effects of the Pandemic on the International Student Program of Turkey

Turkey decided to take action in international student recruitment in the late 2000's, especially with the support of the Ministry of Trade. With the abolishment of the centralized placement exam (YOS) for the international students in 2010, Turkey started to host rapidly increasing number of international students. The education councils established under the Turkish Exporters Assembly (TIM) and the Foreign Economic Relations Board of Turkey (DEİK) motivated especially the foundation universities in recruiting self-funded international students. When the international student quotas are increased by the Higher Education Board of Turkey (YOK) the number of international students who have chosen Turkey as a study destination has also increased incrementally. Especially, after the new presidential system of Turkey, it became easier to take decisions and move faster in this strategic area. We learn through the Turkish Higher Education statistics that currently; more than 172 thousand international students are studying in Turkey. When we consider the fact that the number of international students was only 48 thousand back in 2014, it is safe to say that there was an exponential increase in student numbers in the last 5 years. Based on the same statistics, we can sort the top 10 countries which send students to Turkey for higher education.

Table 2. Top 10 countries which send international students to Turkey for Higher Education (Based on the statistics of the Academic Year of 2018-2019)

Country	**Number of Students**
Syria	27,606
Azerbaijan	18,830
Turkmenistan	16,592
Iran	7,144
Iraq	6,468
Afghanistan	6,632
Germany	4,310
Somalia	3,077
Bulgaria	3.003
Egypt	2,752

Source: *Prepared based on the statistics announced by the Turkish Higher Education Board*

Countries which send the most international students to Turkey are also among the ones which are affected by the COVID-19 pandemic. Although it is not easy to reach data about the pandemic situation in Syria, most of the Syrian students chose Turkey for Higher Education come from the other Golf Countries or they are already in Turkey where they immigrated after the Syrian crisis. In this sense, we can say that those students come from Saudi Arabia which is the 16th country in the world in the number of COVID-19 cases or from Kuwait which had a staggering number of COVID-19 cases (35,950) compared to the total population of the country, according to the World Health Organization data. The cases detected in Azerbaijan is currently 9,957 and increasing every day. Although, there is not a confirmed COVID-19 case in Turkmenistan yet, specialists speculate that there are unconfirmed cases in the country. Furthermore, the country imposed very strict travel bans to its citizens. Iran was one of the countries which was affected the first from the pandemic, and it was affected hard. With the current cases of 187,427 and number of deaths of 8,837, Iran remains among the countries which suffered the most from the pandemic. To sum up, countries of origins of the international students in Turkey are among the ones which was affected by the global pandemic the most (Worldometers, 2020).

As the mentioned countries suffered greatly when it comes to the human costs of the pandemic, they are also the ones which suffered from the economic stagnation followed by the pandemic. Due to the fall in the oil prices, countries which are rich in natural resources are facing economic contraction. This situation effected the regular citizens' incomes very rapidly. As the borders are still closed in many countries, import and export came to a halt as well. This situation resulted the students to change their study plans or suspend them because of financial difficulties. The survey results of the "studyportals" which is an international education portal which is based in the Netherland,

shows us that 40% of the international students had to change their higher education plans due to the global pandemic. 17% of those students decided to postpone their plans to the next year while %15 of those students decided to join online education. 4% of those students unfortunately decided to give up higher education all together because of the global pandemic (Gutterer, 2020).

In the light of the information above, it is highly expected that the number of international students who will choose Turkey as a study destination of higher education will decrease due to the global pandemic as it is also expected in many countries in the world.

Conclusion

For a long time, we did not face a global crisis which affected every aspect of our lives. As it was the case in all the aspects of our lives, thanks to the global COVID-19 pandemic, we could observe that higher education was sitting on a very fragile basis and function properly only under the normal circumstances. In this sense, it will bring many risks that are mentioned along with it, this pandemic gave us the opportunity to build a more sustainable higher education system by eliminating many vulnerabilities, inadequacies and twisted applications which could not be noticed under the normal circumstances. The pandemic provided a vision of sustainable education and research to the higher education institutions in the world and made them gain the experience that is needed to pave their way to the said vision.

Of course, we should not overlook the risks that was brought by this valuable experience. Although we were able to continue higher education without a long pause, as we have moved the education to the online platforms rather swiftly, inexperience of the lecturers in distance learning, educational materials were designed for the use of formal education, turning the assessment and evaluation systems into a matter of discussion and insufficient technical infrastructure for the online learning resulted an unpleasant experience for the students in general. However, with quick, flexible and rational steps, it is still possible to turn the hardships into convenience and increase the motivation of the students towards distance learning.

Additionally, it is evident that the internationalization of higher education is faced with an important risk in this pandemic. The internationalization policies which were designed only for globalized world where all the borders are open, lost all its effectiveness in the global pandemic and all the international Education and study activities are either stopped or taken a totally different form. In this sense, extra efforts are needed to build sustainable internationalization policies and international partnerships. Furthermore, the weak financial structure of many universities will not allow them to resist the economic constriction which is followed by the global pandemic.

If we manage to eliminate those risks, it is possible for us to finally integrate the distance learning to the formal learning in higher education. If we make the necessary adjustments in the light of this valuable experience, it is safe to say that the higher education institutions which will blend distance and formal learning together and make the formal learning to be sustainable even in crisis situations will also shape the future of the Higher Education in the world.

References

Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Case Study*, 113-115.

Brawley, S. (2020, 03 15). *Australian Universities and the Spanish Flu.* Campus Morning Mail: https://campusmorningmail.com.au/news/we-have-been-here-before-australian-universities-and-the-spanish-flu/

Cumhurbaşkanlığı Kararı. (2020, 06 09). *Resmi Gazete (No: 31150)*. Ankara, Türkiye: Resmi Gazete.

Emekci, O. B. (2010). Agility in Higher Education: Planning for Business Continuity in the Face of an H1N1 Pandemic. *S.A.M. Advanced Management Journal*, 20-30.

Govindarajan, V. S. (2020). A Post-Pandemic Strategy for U.S. Higher Ed. *Harvard Business Review Home*, 1-20.

Gutterer, J. (2020, 06 14). *The Impact Of COVID-19 on International Students Perceptions*. Studyportals: https://studyportals.com/intelligence/the-impact-of-covid-19-on-international-students-perceptions/

IEFT. (2020, 06 14). *Turkish Students Market Report 2016*. IEFT (International Education Fairs of Turkey): https://ieft.net/i/ieft/turkish_students_market_report_20162

Katjavivi, P. H. (2003). African Higher Education Institutions Responding to the HIV/AIDS Pandemic. *AAU Conference of Rectors, Vice Chancellors and Presidents of African Universities (COREVIP)* (s. 1-29). Mauritius: Corevip.

Peters, M. A. (2020). China's Internationalized Higher Education During Covid-19: Collective Student Autoethnography. *Postdigital Science and Education*, 1-21.

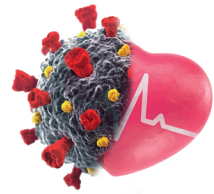
Toquero, C. M. (2020). Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. *Pedagogical Research*, 2-6.

UNESCO. (2020, 03 13). *COVID-19 Impact on Education.* Education: From disruption to recovery: https://en.unesco.org/covid19/educationresponse

Van, D. M. (2010). University life and pandemic influenza: Attitudes and intended behaviour of staff and students towards pandemic (H1N1) 2009. *BMC Public Health*, 1-10.

Worldometers. (2020, 06 14). *COVID-19 CORONAVIRUS PANDEMIC*. Worldometers: https://www.worldometers.info/coronavirus/

YÖK. (2020, 06 14). *YÖK'TEN KÜRESEL SALGIN İLE MÜCADELE KAPSAMINDA YENİ DÜZENLEMELER - I*. Yükseköğretim Kurulu Resmi Web Sitesi: https://www.yok.gov.tr/Sayfalar/Haberler/2020/kuresel-salgin-surecinde-yapisal-duzenlemeler.aspx



R&D and Innovation Approaches in the Postpandemic Period

Hasan Mandal

Prof. Hasan Mandal

Prof. Hasan Mandal attained his PhD degree from Newcastle University in 1992. Post-doctoral studies were undertaken at Newcastle University (1992-1994) and Karlsruhe University (1997-1998) as an Alexander Humboldt scholar. In 1994, Mandal became Assistant Professor in the Department of Ceramic Engineering at Anadolu University, receiving an Associate Professor status in 1996 and tenured Professor status in 2001. With more than 140 publications, 72 in SCI journals, an h-index of 19, 1490 citations and 6 international patents, Prof. Mandal holds various national and international awards, including the TÜBITAK Science Award. He is a member of TÜBA, World Academy of Ceramics and Academia Europaea. Prof. Mandal was appointed as a member of Council of Higher Education (CoHE) in March 2015, elected to the Executive Board of CoHE in April 2015 and the Deputy Chairman of CoHE in July 2016. Prof. Mandal served in these positions until January 2018 and as Deputy Rector of Sabancı University from January to February 2018. He was assigned as the President of TÜBITAK on February 22, 2018, appointed as a member of the Presidential Science, Technology and Innovation Policies Council on October 8, 2018 and elected as the acting president since November 1, 2018. He was elected as the board member of the Council of Higher Education in April 2019.

R&D and Innovation Approaches in the Postpandemic Period[1]

Hasan Mandal
Scientific and Technological Research Council of Turkey (TÜBİTAK)
hmandal@tubitak.gov.tr

Abstract
The transformation that is being realized in R&D and innovation processes, including co-creation and systemic challenge driven innovation, has become an imperative during the pandemic. In this chapter, the main features of the transformation in R&D and innovation processes are first put forth and its importance in the combat against the pandemic is evaluated. Afterwards, the novelties of the science and technology-based process in our country to combat COVID-19 are discussed under three main headings. In this context, the coordination of the ecosystem based on a co-creation approach with a focus on succeeding together foremost in vaccine, drug and diagnostic solutions under the COVID-19 Turkey Platform are set forth. Rapid calls that enable ecosystem actors to actively take part in the fight against COVID-19, thereby strengthening the mobilization, are reviewed based on new opportunities for SMEs, young researchers, the social sciences and humanities as well as support for entrepreneurs. In the race against time, developments for accelerating R&D and innovation processes as well as increasing the scientific communication environment are put forth based on an online portal and virtual conferences. In the new normal order, the guiding aspects of these experiences are discussed, especially where tackling common challenges will continue into the future in biosecurity, cyber security along with broadband infrastructure and food supply security. As one of the most essential components of the social system, the R&D and innovation system has undergone a multi-faceted experience due to the pandemic, which will elevate co-development solutions to a new dimension in the post-pandemic era.

Keywords
Research, development, innovation, co-creation, vaccine, drug, COVID-19, pandemic

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Transformation in R&D and Innovation Processes

The new coronavirus disease (COVID-19), declared as a pandemic, has caused various difficulties in the social system. The need for approaches that can counter the challenges that need to be resolved, including the challenges caused by COVID-19, has moved to a dimension that has become more important than ever. In this environment, it was once again revealed that research, development (R&D) and innovation are critical in providing solutions. In a world where complex problems that need to be addressed at the social level are increasing, the necessity of the transformations in order to make R&D and innovation processes more effective has increased rapidly. Features that are determined as basic elements of the transformation in the R&D and innovation processes and an evaluation of their importance during the COVID-19 pandemic period is summarized in Table 1. These key features are based on the report published by the European University Association (Reichert, 2019). As can be seen from the evaluations in Table 1, the transformation in R&D and innovation processes became compulsory during the COVID-19 pandemic period.

Table 1. Assessment of the Key Features of Transformation in R&D and Innovation Process and Its Importance in the Scope of COVID-19 Outbreak

Previous Feature	**Transformed Feature**	**Evaluation of its Importance During the COVID-19 Outbreak**
Linear innovation	→ Reiterative innovation	✓ Providing speed to R&D and innovation-oriented solutions
Closed innovation	→ Open innovation	✓ Inclusion of necessary resources in R&D and innovation processes
Technology-driven innovation	→ Systemic challenge driven innovation	✓ Combatting the challenge in a multi-faceted manner

Previous Feature	Transformed Feature	Evaluation of its Importance During the COVID-19 Outbreak
Individual innovation	→ Cooperative and multi-disciplinary innovation	✓ Actors coming together for more effective solutions
Spontaneous innovation	→ Systematic innovation	✓ Emphasis on the importance and urgency of strategic approaches
Innovation focused on knowledge transfer	→ Co-creation based innovation	✓ Emphasis on common processes leading to the path to success
Innovation projects	→ Innovation culture	✓ Ensuring that a sustained paradigm shift takes place

Reiterative innovation is among the transformed features in Table 1. This feature implies increasing the interactions between the stages and evaluating the scientific accumulation for different solutions instead of monitoring the R&D and innovation stages linearly. Reiterative innovation is an important feature that can accelerate R&D and innovation processes when compared to the requirements of COVID-19 processes. Open innovation, on the other hand, reveals the importance of including necessary resources in R&D and innovation processes, independent of institutions and organizations (Chesbrough, 2020). From this point of view, it requires that qualified knowledge and qualified human resources, which are the most important resources, are evaluated and included in the process throughout the ecosystem. It is also emphasized that open innovation is among the important features that contribute to the management of important crises, such as the COVID-19 outbreak (Chesbrough, 2020).

Prior to the COVID-19 outbreak, it has been widely recognized that sustainable development-oriented challenges not only involve a technological challenge but also represent a social challenge that extends to new business models and requires various socio-economic innovations (Colvin vd., 2014)which originated from the SLIM (Social Learning for the Integrated Management and Sustainable Use of Water at Catchment Scale. The importance of this feature, which is expressed in Table 1 as systemic challenge driven innovation, has increased during the COVID-19 pandemic. In order to comprehensively address the problems caused by the pandemic at the social level, it was necessary to develop solutions with a multi-faceted approach based on science and technology. Within this approach, the need and awareness for R&D and innovation processes based on cooperation and multi-disciplinary approaches among ecosystem actors in bringing solutions instead of individual innovations has increased. The common struggle approach that emerged during the COVID-19 pandemic period included experiences underlining that solutions based on ecosystem actors coming together can be significantly more effective.

In environments that require tackling challenges, spontaneous innovation has been replaced by processes in which strategic approaches are followed. This feature, expressed as systematic innovation in Table 1, requires ecosystem

actors to follow more planned and targeted processes. The COVID-19 outbreak that emerged as an unexpected pandemic has been a spontaneous development. However, when we look at our country, a science and technology based process in which emergency planning was made by determining a strategic approach for the ecosystem was followed immediately. Within this common struggle approach in our country, innovation focused on co-creation have been an important opportunity for the ecosystem. Processes in which knowledge is only transferred from one ecosystem actor to another has become insufficient. It has become essential for different institutions and organizations to be involved in common processes across the ecosystem where work is done together collaboratively rather than only cooperation. In this context, while it was important to capture innovation-oriented innovation opportunities before the COVID-19 outbreak, this has became an imperative during the COVID-19 outbreak. The pandemic has been an important milestone showing how co-creation processes are mandatory. It has been understood that the path to success goes through processes in which the ecosystem works together in co-creation.

The acquisition of experiences that are suitable for supporting the transformation in R&D and innovation processes contributes to the creation of a common innovation culture. The interactions between the actors are expected to meet in impact-oriented processes that are based on a common innovation culture much beyond a process that consists of R&D and innovation projects. The culture of innovation focused on co-creation is also necessary considering its impact potential (Q-Plan, 2019). For this reason, a common innovation culture that takes place in Table 1 is also important for the COVID-19 pandemic period, which requires a process towards impact for a healthy society. Certainly, the common R&D and innovation culture that is strengthened to fight against the common challenge of COVID-19 will also be a guide after the pandemic for other areas that require solutions in the ecosystem.

Mobilization of the Ecosystem in the Fight Against COVID-19

At the present time, it is inevitable to make a clear distinction between "before COVID-19" and "post COVID-19" considering that the COVID-19 outbreak represents a new social challenge. With this milestone, the distinction between ecosystems that can and cannot evaluate the transformation in R&D and innovation processes to combat COVID-19 is also increasing. Positive developments will be provided for ecosystems that can realize the transformation in R&D and innovation processes during the fight against COVID-19 so that these ecosystems will emerge stronger after the pandemic and enter the normalization process with a new order. In this new order, COVID-19 outbreak experiences will open new opportunities with an approach towards combating and achieving common challenges based on the transformation in the R&D and innovation processes that have become an imperative.

When a more detailed assessment is made with a focus on Turkey, our country has put forward a comprehensive approach in the combat against COVID-19 and provided a strong example based on the transformation that is taking place in R&D and innovation processes. The ecosystem mobilization that our country has achieved in the fight against COVID-19 has included an approach that has been endeavored to be followed from all over the world and tried to be followed while expressing great appreciation. The interactions of the R&D and innovation ecosystem were mobilized for a common struggle based on science and technology in the face of the COVID-19 outbreak, and the ecosystem was fully mobilized. The main innovations that took place in the comprehensive mobilization of the ecosystem in the face of a common challenge that needs to be resolved are presented in three main headings. The developments of each are explained in the continuation of this chapter.

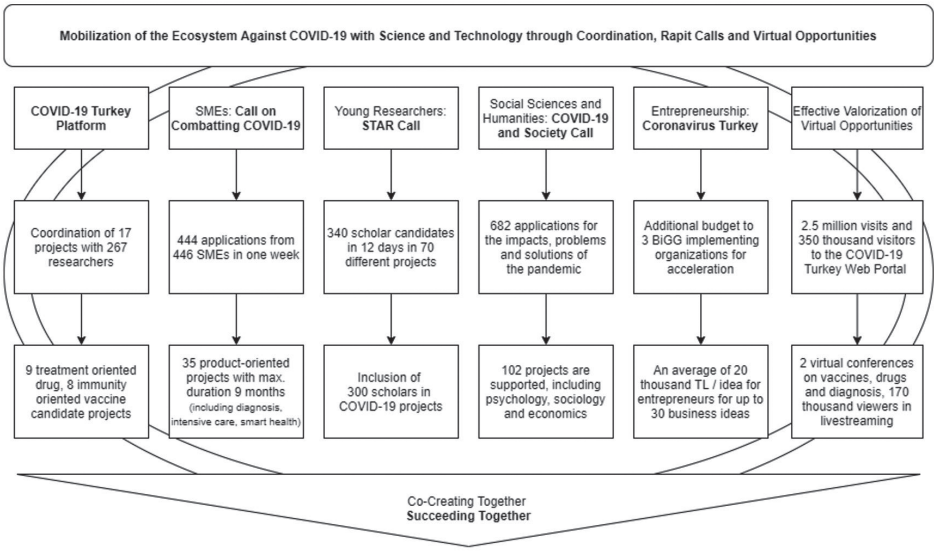
Innovation 1. Coordinating the ecosystem with a focus on collaboration based on a co-creation approach in mobilizing the ecosystem in the face of a common challenge
Ecosystem researchers were mobilized within the scope of a common platform in order to ensure an impact against the COVID-19 outbreak for a healthy society. In the COVID-19 Turkey Platform in which co-creation and succeeding together has come to the forefront, interactions between researchers have been increased and the ecosystem has been coordinated based on different R&D and innovation targets. In the fight against COVID-19, a total of 267 researchers have been united for providing solutions based on the development of treatment-oriented drugs and immunity-oriented vaccines. In addition to drug and development projects, the diagnosis area is also included in the platform.

Innovation 2. Opening rapid calls to ensure that ecosystem actors are involved in the fight against COVID-19 and the mobilization of the ecosystem is strengthened
The COVID-19 pandemic has challenged social systems, especially the health system. A grand challenge with complexity and systemic difficulty was encountered at the societal level. It quickly become clear that this difficulty needs to be resolved and effectively handled with an approach that transcends disciplines. For this reason, new rapid calls have been opened and completed to effectively incorporate the contributions of the natural sciences, engineering, social sciences and humanities into the process and ensure that relevant ecosystem actors from all levels are involved in the process. These calls significantly strengthened the mobilization of the ecosystem from small and medium-sized enterprises (SMEs) and young researchers to social sciences and humanities researchers. Support opportunities are also increased to accelerate the business ideas of entrepreneurs.

Innovation 3. Valorization of virtual possibilities to accelerate R&D and innovation processes and increase scientific communication environments in the race against time
The enabling opportunities of digital technologies have been evaluated to increase the virtual environments in the pandemic period and to provide flexibility to the necessary processes. The use of virtual environments has been maximized to contribute to R&D and innovation processes, with the idea that every challenge can also create an opportunity. Effective valorization of virtual environments has been ensured from the organization of virtual conferences to conducting rapid processes, including the evaluation processes of the opened calls, sharing scientific resources and datasets within the scope of open science, and communicating ecosystem developments to large masses throughout the society.

In the framework of the main innovations as mentioned above, a summary representation of the science and technology-based combat against COVID-19 in our country is given in Figure 1. In this approach, the components of the ecosystem are brought together with a focus on a common challenge and a multi-faceted process is managed simultaneously on the basis of qualified knowledge and qualified human resources. In addition, in this approach, all the functional dynamics that accelerate innovation systems from providing direction and guidance to R&D and innovation processes to market formation are all integrated (Hekkert et al., 2007), (Bergek et al., 2008). To combat a common challenge, R&D and innovation were strategically directed, and output and impact-oriented knowledge production was increased, particularly drug and vaccine development against COVID-19. While the ecosystem is coordinated, the diffusion of knowledge has been increased with a focus on a co-creation and succeeding together approach. The contribution of the social sciences and humanities was integrated into the process, human resources were mobilized from young researchers to competent researchers, and entrepreneurs were encouraged to develop solutions against COVID-19. While product-oriented expectations from SMEs were increased, opportunities for increasing the widespread use and impact of the developed products were captured, such as the success in the mass production domestic and national respirators for addressing societal needs. With COVID-19 as a common challenge, an ecosystem with unity in direction between actors is achieved and country-specific co-creation models that represent a paradigm change in the transformation of R&D and innovation processes have been advanced and carried forward.

Figure 1. Mobilization of the Ecosystem in Combating COVID-19 on the Basis of Science and Technology



COVID-19 Turkey Platform in Ecosystem Coordination with a Focus on Succeeding Together

The first publication of the genetic sequence of the SARS-CoV-2 virus causing COVID-19 led to intensive R&D studies for developing vaccine candidates against the disease (Thanh Le et al., 2020). Simultaneously with the emergence of the COVID-19 outbreak before the disease had entered our country, possibilities to mobilize the competencies in the ecosystem were evaluated. In this context, stakeholders of the drug, vaccine and/or diagnostic-oriented research programs that have completed the first phase under the call of the TÜBİTAK 1004 Centers of Excellence Support Program on High Technology Platforms, which have an important place in the co-creation models specific to our country, were taken into consideration. Under the patronage of the Ministry of Industry and Technology and the coordination of the TUBITAK Marmara Research Center Genetic Engineering and Biotechnology Institute, solutions from the ecosystem for drug candidates for the treatment of the COVID-19 infection caused by the SARS-CoV-2 virus and vaccine candidates for immunization were collected and a sub-platform was created specifically for their realization.

In the mobilization that was launched as the COVID-19 Turkey Platform, the submission, evaluation and finalization of drug and vaccine development research projects that were written for the collected solution areas were completed in a total of 10 days. Initially, 14 research projects were put in implementation, including both chemical and biotechnological drug and vaccine projects based on different methods and including more than one solution possibility. Although a dynamic process, currently 267 scientists from 46 different institutions and organizations, including 29 different universities, 8 different private sector organizations and 9 public R&D units in 17 projects, achieve significant success by conducting intensive research studies collectively. 116 of the researchers contribute from universities, 67 from public R&D units, 38 from the private sector and 46 as scholars in the research projects.

Within the scope of treatment-oriented drug development projects, drug molecular modeling and design, synthesis and production of domestic synthetic drugs, convalescent plasma and recombinant neutralizing antibody projects are conducted successfully. Already in the first 2 months of the projects, virtual scanning of thousands of molecules according to the different target regions of SARS-CoV-2, designing a new drug molecule, synthesizing and formulating drugs with local possibilities, moving to animal immunization studies for recombinant neutralizing antibody and progress in protective artificial antibodies have been reached. In vitro demonstration of the neutralizing effect for protein-based treatment opportunities and other similar developments have been achieved with intense efforts in collaborative teams.

There is an important portfolio of vaccine candidates in the vaccine development projects for immunization, including all vaccine methods that are studied in the world as well as innovative methods. In this context, both inactive vaccine

candidates and vaccines based on high-technology are included in the vaccine candidate portfolio, including recombinant protein and peptide vaccines, DNA vaccine, adenoviral viral vaccine, virus-based particles-based vaccine, ASC granule-based vaccine and RNA vaccine candidate. Animal studies, which are an important step for basic science in pre-clinical research, have been started in half of the vaccine projects within the first 2 months. In other vaccine development projects, animal models are developed for COVID-19 in order to progress to animal experiments.

The most important feature of the platform, which includes pre-clinical research projects with a duration between 9 to 12 months, is that the researchers work together in synergy, not independently from each other. There is a robust sharing of information on any needs that are encountered even among research projects involving different methods as well as the sharing of materials and human resources, which has also become the common culture of the platform rather than unusual activities. This approach, as in the defense industry, expresses a process that is focused on success with continued determination for the development of domestic and national technology solutions for the people of our country in the field of vaccine and drug-oriented health. The full-scale mobilization and coordination of the ecosystem that is represented in the COVID-19 Turkey Platform drug and vaccine research projects is also extended to other relevant areas of research, including in particular the areas of diagnosis.

Rapid Calls Oriented Towards Involving Ecosystem Actors in the Process

The accumulation of R&D and innovation assets in the healthcare field has played a major role in mobilizing the ecosystem against COVID-19, which creates a new scientific gap for the world. The scope of support that is given by TÜBİTAK, which focuses on pre-clinical research projects, amounted to a budget of approximately 2.3 billion TL for 2,960 projects in the last 5 years. This amount includes 755 vaccine and drug R&D projects with a total budget of 1.7 billion TL, as well as 516 projects with a total budget of 402 million TL in the field of medical devices, including diagnostic kits. Considering this important accumulation of competence, which constitutes the basis for the mobilization of the ecosystem, ecosystem actors have been included in the process by means of rapid calls to fight against COVID-19. As part of the transformation in R&D and innovation processes, the "Call for Combating COVID-19" for SMEs, the "Intern Researcher Scholarship Program (STAR)" call for young researchers and the "COVID-19 and Society: The Social, Human and Economic Effects of the Pandemic, Problems and Solutions " call have provided important opportunities for the ecosystem within the scope of the transformation in R&D and innovation processes.

Call for Combating COVID-19

Within the scope of the "Call for Combating COVID-19" for SMEs that are important actors for solutions in the ecosystem, a total of 444 project applications were received from 446 SMEs during the 1-week period during

which the call was kept open. In the call, SMEs were requested to develop product-oriented projects for the diagnosis and treatment of COVID-19, protective products that are effective in preventing disease transmission routes, and devices and products for improving environmental conditions. Through this rapid call that proved the power of SMEs once again, a total 35 projects received support decisions with a support budget of 13.5 million TL (TÜBİTAK, 2020a). The evaluation process of the rapid call was conducted completely online. In addition, the opinions of the hospitals and physicians as potential end users were integrated into the process to evaluate product-oriented expectations and were conducted in the scope of the evaluation process. The project applications were completed in less than 2 weeks with the evaluations of 552 referees and 18 Advisory and Group Executive Boards and became the quickest call that was completed by TÜBİTAK.

The ongoing projects involve fast and reliable diagnostic kits, innovative designs for devices that can be utilized prior to or during intensive care, cameras with various technical features, smart health solutions, telemedicine applications and support systems for early diagnosis and follow-up stages. Synthesis and production of disinfectants, innovative masks, materials and protective clothing represents other product-oriented project areas. The total support period of all projects focused on product and solutions with a maximum duration of 9 months. It is targeted that SMEs will achieve new areas of success based on product-oriented solutions against COVID-19 and make a significant impact based on the results of their products.

Intern Researcher Scholarship Program Call

It is a valuable opportunity to involve undergraduate, graduate and postgraduate students and post-doctoral researchers who want to take part in the fight against COVID-19 with the skills they possess in the process. To meet this opportunity, a first-time scholarship has been initiated through the STAR call for young researchers to work as a scholar in R&D projects that are related to COVID-19. The STAR call encouraged students and young researchers who will take part in publicly supported R&D projects for the diagnosis and treatment of COVID-19. An interface has been created to meet the demands of young human resources in the R&D projects related to COVID-19 in a way to contribute to the application process.

In the 12 days that the call was open, applications were received by 340 undergraduate, graduate and postgraduate students and post-doctoral researchers who wanted to work in 70 different research projects. In this context, scholarship candidates across all levels showed great interest to contribute to the process with their skills and wanted to work in R&D projects to combat COVID-19. In total, 118 undergraduate, 85 graduate and 70 doctorate students, together with 27 post-doctoral researcher candidates who satisfied the basic conditions to become scholars were supported to take part in research projects related to COVID-19. By supporting 88% of the scholarship candidates that applied, 300 young people in total were matched with needs in

R&D projects related to COVID-19. In addition, 209 of the 300 young scholars who were included in the process were female researchers (TÜBİTAK, 2020b).

The 300 scholars who are supported through the STAR scholarship are taking roles within R&D projects related to COVID-19 with public support, including the research projects in the COVID-19 Turkey Platform. In addition to vaccine and drug development as well as diagnostic kits projects, the young researchers are supported for a maximum of 12 months in projects that include biomedical equipment, masks, protective clothing, disinfectants, and information applications that can directly or indirectly affect pandemic outcomes.

Social Sciences and Humanities Focused COVID-19 and Society Call
It is a requirement that the multi-dimensional effects caused by COVID-19 should be handled in multi-faceted ways. As emphasized within the scope of the transformation in the R&D and innovation processes during the pandemic period of COVID-19, the need for innovation with systemic difficulties came to the forefront. In this context, it is essential that the social sciences and humanities contribute to the process alongside natural sciences and engineering in the development of solutions in combatting COVID-19. Evidence-based planning based on science and technology that is possible with the contribution of the social sciences and humanities is important not only for the pandemic period, but also the post-pandemic period. Clearly, changes in individual, institutional, social, economic and environmental dimensions have occurred due to the COVID-19 outbreak. There have been radial changes from business methods, working models and education methods to producer and consumer behaviors, supply-demand balances, international supply chains, energy demands and quality of life. For example, an evaluation of impacts in supply chains in the short term and those for visibility, new risks, cost modeling and a resilience focus gains importance in the medium term (PwC Türkiye, 2020). Considering the problems triggered by such changes and the potential problems it will trigger, the social sciences and humanities have important contributions to make in better controlling the pandemic and increasing the resilience of the society.

In order to make a significant contribution to meeting all of these needs, TÜBITAK launched the call on "COVID-19 and Society: Social, Human and Economic Effects of the Pandemic, Problems and Solutions" (TÜBİTAK, 2020c). The call aims to develop evidence-based solutions by investigating the current and predicted problems as well as the effects of the pandemic from a social sciences and humanities perspective. Research on short, medium, and long-term projection studies, forecasting, analysis and planning studies are carried out under this call with evidence based scientific findings that constitutes the social sciences and humanities contribution to the science and technology-based combat against COVID-19. In this way, solutions that will be beneficial for decision makers and implementers regarding the management of the processes and resource planning will be created. The call also emphasized that

interdisciplinary studies will be particularly important, since interdisciplinary approaches have an essential role in understanding the multidimensional effects of the global outbreak.

The call that remained open for 15 days received 680 project applications from Turkey and 2 project applications from the Turkish Republic of Northern Cyprus for a total of 682 project proposals from 160 different institutions. The number of applications that were received allowed this call to be one of the thematic calls in the field of social sciences and humanities to receive the most project applications. Within the scope of 102 projects for which support decision were given, problem and solution areas are being determined in psychology, sociology, computer and instructional technologies, communication, marketing, social policies, public administration, economics, management and organization fields. The total budget of 102 R&D projects with a maximum duration of 6 months is approximately 10 million TL. Social sciences and humanities research has been accelerated for providing rapid results to support future planning considering the multi-dimensional effects of COVID-19.

Accelerating and Encouraging the Business Ideas of Entrepreneurs

Alongside calls that are focused on SMEs, young researchers and researchers in the social sciences and humanities to strengthen the mobilization in the ecosystem, entrepreneurs have also taken their place in the process of combatting COVID-19 with innovative business ideas. The Coronathon Turkey Competition that was organized to allow entrepreneurs to be part of the solution involved the support of many organizations and institutions. The founding team included stakeholders that have been working together within the scope of the TÜBİTAK Individual Young Entrepreneur Program (BiGG), various entrepreneurship centers and non-governmental organizations. In the event, entrepreneurs competed with innovative business ideas towards providing solutions to social and logistics solutions as well as solutions in the scope of unemployment, cash flow problems and sustaining education (Coronathon Türkiye, 2020). Various innovative ideas have emerged with direct or indirect implications for the COVID-19 outbreak, including innovative financial technologies for money-free environments from devices that enable automatic disinfection of monetary surfaces.

Taking into account the important contributions that young entrepreneurs can provide to increase and diversify possible solutions against COVID-19, an additional budget of 600 thousand TL has been allocated to the accelerator programs of 3 implementing organizations that have been working together within the scope of TÜBİTAK BiGG for business ideas focused on combating COVID-19. In total, up to 30 business ideas are provided with an average of 20 thousand TL as a means of supporting innovative ideas to be transformed into solutions that touch human life and reach the market. Success stories similar to those that included security critical and cyber threat analysis software, three-dimensional printing technology, analysis platform that enables a

cheaper analysis of human DNA and others before the COVID-19 pandemic are targeted while strengthening the role of entrepreneurs in the common struggle by contributing to the acceleration of innovative business ideas.

Effective Valorization of Virtual Opportunities in the Race Against Time
In the race against time, the enabling role of digital technologies has come to the forefront in the COVID-19 pandemic environment to accelerate R&D and innovation processes, to develop smart solutions, and provide the necessary flexibility to processes that need to be maintained. Open access, open data and open science trends as indicated within the scope of the TÜBİTAK Open Science Policy (TÜBİTAK, 2019) have been significantly increased worldwide in the fight against COVID-19. In the face of a common challenge, the enabling role of digital technologies was evaluated and new virtual environments were created. As the new virtual environments of our country, the COVID-19 Turkey Web Portal has been created and virtual conferences were organized in the coordination of the COVID-19 Turkey Platform, reaching a wide audience. Through the effective valorization of virtual environments, the science and technology-based approach in combatting COVID-19 has been supported by strengthening the means of an interactive communication with the ecosystem.

COVID-19 Turkey Web Portal
Sharing evidence-based scientific developments has become a necessity in the fight against COVID-19. Starting from existing scientific sources, which have not previously been open access but could contribute to COVID-19 researches, leading publishers have given open access and COVID-19-specific publication collections have been created. The aim of providing a common online collection of various national and international databases based on open access to scientific resources, together with open data sets for the benefit of the research ecosystem and boosting social awareness led to the establishment of the COVID-19 Turkey Web Portal that has been sustained with continuous updates (STB/TÜBİTAK, 2020a).

Within a period of approximately 2 months, the number of visits to the portal has exceeded 2.5 million visits with a total of more than 350 thousand visitors. In addition, through the portal, scientific communication has been strengthened to bring scientific and technological developments to society. In the portal, daily statistics on the results of the COVID-19 outbreak, current scientific developments, scientific resources, datasets, useful links, means of protection and clinical studies, as well as competencies of our country and researchers are shared. Sharing of scientific information that have been added by researchers in the ecosystem include molecular dynamics simulations, the importance of various disciplines such as structural biology, and a COVID-19 diagnostic system supported by artificial intelligence. An new interface that is created using open data sets based on temporal and spatial data of the genome sequence of the virus is also shared through the portal (STB/TÜBİTAK, 2020b).

In addition to the announcements and developments related to the rapid calls in the fight against COVID-19, the special issue of the Turkish Journal of Medical Sciences, COVID-19 (Academic Journals, 2020), TÜBA COVID-19 Global Outbreak Evaluation Report (Şeker vd., 2020) and similar scientific sources are shared. In the special issue of the Turkish Journal of Medical Sciences, the epidemiology of the virus, preventive measures, diagnostic and radiology approaches, patient care and treatment options, the effects of the global pandemic and various responsibilities are discussed. With the contribution of the members of the Coronavirus Scientific Committee, scientific difficulties and the ongoing scale of the pandemic are undertaken in a multi-faceted way. The mobilization of the ecosystem that is pursued with determination to obtain a positive effect on a healthy society based on scientific advancements was also represented (Mandal, 2020). Thus, through the special issue, the production of scientific knowledge that can contribute to the multi-faceted examination of the COVID-19 outbreak and the science-based intervention processes has been increased.

COVID-19 Turkey Platform Virtual Conferences

During the pandemic in which there is a greater need for science, virtual conferences have been organized that is appropriate to the co-creation and succeeding together approach of the COVID-19 Turkey Platform. In this way, the opportunities provided by virtual environments are effectively valorized in the environmental context of the fight against COVID-19 where the power of science and technology is as strong as the mobilization of researchers. Organized virtual conferences served multiple purposes, particularly increasing scientific sharing among ecosystem researchers during the COVID-19 pandemic period, sharing experiences that are gained especially in the field of vaccination, medicine and diagnosis, encouraging open science approaches and creating social awareness and expectations. Virtual conferences have been a very important tool for science communication in order to share the developments in the scope of the science and technology-based struggle with the society and the ecosystem.

Among the virtual conferences that are coordinated by the COVID-19 Turkey Platform, the first virtual conference was held in the area of vaccines and drugs based on the "COVID-19 Turkey Platform Vaccine and Drug Development Virtual Conference" (TÜBİTAK, 2020d). Three sessions took place based on drug repurposing and drug development, innovative treatment methods and vaccine development with 14 speakers contributing to the virtual conference. Through the virtual conference, it has been possible to provide an opportunity for raising awareness on molecular docking studies based on virtual screening of drugs, in-silico studies as well as in-vitro and in-vivo processes as well as the development of drugs that will reduce import dependency with new methods of synthesis. Similarly, scientific perspectives have been presented on recombinant antibody that has a neutralizing effect against the SARS-CoV-2 virus, convalescent plasma, cytokine storm and anti-cytokine treatments for the COVID-19 disease, anti-viral approaches based on the Griffithsin

protein and its therapeutic efficacy as well as the ACE2-Fc fusion protein based protective artificial antibody. Within the scope of vaccine candidate developments, recombinant vaccine using the Spike protein of the virus, DNA and peptide vaccines, new generation COVID-19 vaccine technology based on ASC particles, preparation of a vaccine based on virus-like particles for Phase-1 clinical trials, DNA vaccine based on antigen discovery and inactive vaccine developments were shared.

The virtual conference that was livestreamed on TÜBİTAK's social media accounts was followed by 130,000 viewers with superior interest. The opportunity of allowing the questions of the viewers to be directed to the participants in a live broadcast was another development that strengthened the scientific communication between the researchers and the society.

The second virtual conference that was organized under the coordination of the COVID-19 Turkey Platform took pace in the field of diagnosis as the "COVID-19 Turkey Platform Diagnostic Power of Turkey Virtual Conference" (TÜBİTAK, 2020e). In the virtual conference, developments on medical diagnostic kits, diagnostic-oriented laboratory systems, diagnostic devices, and information and communication technology applications were addressed. There were presentation contributions from 15 firms in addition to a university researcher who developed an innovative medical diagnostic kit within a rapidly supported academic project. In this context, it was possible to gain insight on various developments on medical diagnostic kits and systems in addition to a prototype that can provide an alternative to the polymerase chain reaction (PCR) test method based on a nanomechanical system.

Through the second virtual conference, medical diagnostic kits for real-time PCR testing, digital PCR suitable for digital platforms, analysis kit, handheld smart patient diagnostic system and rapid and optimized diagnostic kits for antigen and antibody were shared with the public. Within the scope of diagnostic-oriented laboratory systems, diagnostic devices and informatics applications, a laboratory robot that makes the molecular diagnostic processes autonomous, innovative portable diagnostic laboratory, hybrid camera system for collective fever measurement, machine learning and other artificial intelligence-based solutions via ultrasonography images were shared. The second virtual conference received a total of 38 thousand 500 viewers that brought the total number of viewers of the virtual conferences with the coordination of the COVID-19 Turkey Platform in April and May to 170 thousand people.

Dissemination of Experiences in the New Normal Period

The devoted efforts that have been carried out across the ecosystem on the basis of science and technology based on an intense fight against the COVID-19 has made it possible to make significant progress to overcome the pandemic. In this process, shared wisdom was prioritized in the ecosystem

by maximizing the approaches of working together, developing together, fighting together and achieving together. There is an important opportunity to diffuse the experiences from the transformation in R&D and innovation processes that became an imperative during the pandemic period to other areas in the new normal order. Socio-economically, the effects of COVID-19 have influenced every part of society and have also increased the acceleration of digital transformation in the field of health as well as the need for food safety based on variable pressures in agriculture, food and animal husbandry (Nicola vd., 2020). It is important to expand the experiences that are gained and continue to be gained from combatting COVID-19 to areas that have gained importance during the pandemic as well as the process after the pandemic, namely the fields of biosafety, cyber security and infrastructure as well as food supply safety. These areas, each of which represent a common challenge, also play an important role in supporting sustainable development.

Biosafety in the Scope of Transformation in R&D and Innovation Processes

Biosafety, by the definition of the World Health Organization (WHO), refers to "institutional and personal security measures designed to prevent the loss, theft, misuse, diversion or intentional release of pathogens and toxins" (WHO, 2018). Although the intentional production and use of pathogens in particular is prohibited by international treaties, it cannot guarantee that they will not be used. It is important to thus identify such hazards in advance and to develop effective defense methods and technological products. Preparation for cases where living organisms or their metabolites cause intentional or unintentional mass death or damage is vital. Critical measures for the detection and protection of biological agents require technological accumulation, infrastructure and R&D studies. For example, the detection of biological agents in areas where they can pose risks, including inhaled air, agricultural areas, consumed food, water or equipment and equipment used, is possible with the development of scientific knowledge and technological devices. Such requirements can be met through the coordination of ecosystem actors with the approach of co-creating and achieving together.

Cyber Security and Broadband Infrastructure in Transformation in R&D and Innovation

Due to the measures that are implemented during the COVID-19 pandemic period, the flexibility provided by digital technologies in terms of distance and education opportunities has increased significantly internet traffic. It is stated that in OECD countries, estimated to have approximately 1.3 billion people working remotely, a 60% increase in internet traffic has occurred compared to the pre-pandemic period (OECD, 2020b). This upward trend is expected to continue due to additional measures in the new normal period post-COVID-19 in many countries. For example, the declaration of the G20 Digital Economy Ministers' meeting in May "encourages the transition to digitalized production systems, e-commerce, digital supply of services, e-invoicing, and e-payments, and other services, as well as smart working solutions, including remote working, and innovative new business models." This emphasis will continue to increase the intensity of the activities in the digital environment.

At the same time, cyber-attack risks increased simultaneously with increasing internet traffic in the pandemic world (OECD, 2020a). Increased phishing attacks, security of medical equipment and information, malware, physical security, remote connection /virtual private network (VPN) security and security of video conferences are especially on the agenda during the COVID-19 period. After the COVID-19 pandemic, digital technologies will continue to become widespread throughout society, from smart production to smart energy systems, and the environments where cyber security should be ensured will need to be further diversified.

Communication infrastructure is the centerpiece of today's digital age and is a critical component of the health, education, manufacturing and service sectors. It is important to have a more widespread and strong communication infrastructure to eliminate both the effects of the current pandemic situation and the new crisis scenarios that may arise in the long term and to successfully continue the digitalization steps in the country. The need to develop critical applications with local opportunities, especially in the development of fiber infrastructure, the dissemination of high-speed broadband, the creation of data centers and storage of data, and the priority technologies, such as internet of things (including internet of everything and machine to machine (M2M), cloud computing and electronic communication, stand out.

In line with the transformation in R&D and innovation processes, the development of national and unique products for cyber security, broadband infrastructure and secure 5G and beyond technologies will be continued and advanced within the scope of co-creation models.

Food Security in the Scope of Transformation in R&D and Innovation Processes
Factors that put pressure on agricultural production before the COVID-19 outbreak included food demand, climate change, soil and water resources, and urbanization factors (SBB, 2019). In addition to these factors, pressures on agricultural production was created due to different variables during the pandemic period and the importance of food security emerged once again as a social security factor. It is important to meet three basic dimensions for food security based on physical and economic accessibility, physical availability of food and sufficient quality and reliability (EIU, 2019). During the pandemic, the risks and pressures that were placed especially on accessibility and availability were managed successfully. However, the risks of similar pressures due to more permanent risks, including climate change, continue after the outbreak. For this reason, increasing agricultural productivity by using digital technologies in agriculture, including domestic seed and feed production, also with the support of biotechnology, can allow benefiting from the opportunities provided by R&D and innovation-based processes to the maximum extent for food processing, production, storage and distribution processes with the use of advanced technologies. Food supply security, which is becoming increasingly important in the global arena, is also critical during and after the COVID-19 outbreak. The initiation of an R&D and innovation mobilization that will be

gathered around the approach of co-creating and achieving together is among our priorities.

Common Challenges in the Transformation of R&D and Innovation Processes
Biosafety, cyber security and food security areas are also related to areas of importance for investment worldwide. In addition to existing investments, there are additional investment requirements for health, infrastructure and climate change in the next 20 years that are given to correspond to about 1.3% of the Gross Domestic Product per year (Gaspar vd., 2020). Similar to the ecosystem mobilization provided during the COVID-19 pandemic period, a safer and more sustainable future can be achieved by combatting for the common challenges of the ecosystem on the basis of science and technology in the new normal order.

Evaluation and Looking Ahead: Co-Creation Solutions

As part of combatting COVID-19 on the basis of science and technology, our country's experiences have been shared internationally in various environments. The ecosystem mobilization approach against COVID-19 based on science and technology, which is carried out extensively in our country, was able to involve every stakeholder of the ecosystem, unlike other approaches. At the point of evaluating the transformation that took place in the R&D and innovation processes, the approach of co-creation and succeeding together as put forward by our country has become a prominent feature. Within the scope of the European Research Area (ERA), as highlighted in the ERAvsCorona Action Plan, steps have been taken in the direction of coordination of R&D financing against coronavirus, diffusing clinical research, new funding opportunities and funding resources for innovative and rapid approaches in health, support of innovative companies, establishing a temporary high-level R&D-oriented committee, access to research infrastructures, research data sharing platform and Hackathon for entrepreneurs (EU, 2020). These steps that aim to mobilize the R&D and innovation system is not as integrated as those in the COVID-19 Turkey Platform and those for the mobilization of the ecosystem. Research areas that are emphasized by the World Health Organization (WHO) have also been put forth. These research area are epidemiological studies, clinical characterization, infection prevention and control, research on candidate therapeutics, research on candidate vaccines, ethical issues in research, as well as social science research areas in the pandemic response (WHO, 2020). Although social and humanities are among the research areas, the potential of adapting COVID-19 experiences to other challenges that require systemic challenge driven innovation is not addressed.

The R&D and innovation system, which is an important component of the social system, has undergone a multi-faceted process. After the pandemic, it is envisaged that the R&D and innovation system will enter a new normal order that internalizes the transformation in the R&D and innovation processes with

a greater focus on co-creating together. With the experiences that are gained in the pandemic period, new achievements will continue to be achieved in science-based and impact-oriented processes for other challenges that need to be resolved after the pandemic. Co-development solutions will excel to a new dimension.

References

Academic Journals. (2020). COVID-19 Special Issue. *Turkish Journal of Medicinal Sciences*, *50*(SI-1), 485–632. https://journals.tubitak.gov.tr/medical/lastIssue.htm

Bergek, A., Jacobsson, S., Carlsson, B., Lindmark, S., & Rickne, A. (2008). Analyzing the functional dynamics of technological innovation systems: A scheme of analysis. *Research Policy*, *37*(3), 407–429. https://doi.org/10.1016/j.respol.2007.12.003

Chesbrough, H. (2020). To recover faster from Covid-19, open up: Managerial implications from an open innovation perspective. *Industrial Marketing Management*, *April*, 0–1. https://doi.org/10.1016/j.indmarman.2020.04.010

Colvin, J., Blackmore, C., Chimbuya, S., Collins, K., Dent, M., Goss, J., Ison, R., Roggero, P. P., & Seddaiu, G. (2014). In search of systemic innovation for sustainable development: A design praxis emerging from a decade of social learning inquiry. *Research Policy*, *43*(4), 760–771. https://doi.org/10.1016/j.respol.2013.12.010

Coronathon Türkiye. (2020). *Türkiye'nin İlk Covid-19 Hackathonu*. https://coronathonturkiye.com/

EIU. (2019). *Economist Intelligence Unit Global Food Security Index*. https://foodsecurityindex.eiu.com/

EU. (2020). *ERAvsCORONA Action Plan: Short-Term Coordinated Research and Innovation Actions*. https://ec.europa.eu/info/sites/info/files/research_and_innovation/research_by_area/documents/ec_rtd_era-vs-corona_0.pdf

Hekkert, M. P., Suurs, R. A. A., Negro, S. O., Kuhlmann, S., & Smits, R. E. H. M. (2007). Functions of innovation systems: A new approach for analysing technological change. *Technological Forecasting and Social Change*, *74*(4), 413–432. https://doi.org/10.1016/j.techfore.2006.03.002

Mandal, H. (2020). Mobilizing the research ecosystem for scientific advances towards positive impact in thcontext of the covid-19 pandemic. *Turkish Journal of Medical Sciences*, *50*(SI-1), 485–488. https://doi.org/10.3906/sag-2004-180

Muzaffer Şeker, Ali Özer, Zekeriya Tosun, Cem Korkut, M. D. (Eds). (2020). *COVID-19 Küresel Salgın Değerlendirme Raporu*. http://www.tuba.gov.tr/tr/yayinlar/suresiz-yayinlar/raporlar/tuba-covid-19-kuresel-salgin-degerlendirme-raporu-2

Nicola, M., Alsafi, Z., Sohrabi, C., Kerwan, A., Al-Jabir, A., Iosifidis, C., Agha, M., & Agha, R. (2020). The Socio-Economic Implications of the Coronavirus and COVID-19 Pandemic: A Review. *International Journal of Surgery*, *78*(March), 185–193. https://doi.org/10.1016/j.ijsu.2020.04.018

OECD. (2020a). *Policy Responses to COVID-19: Keeping the Internet Up and Running in Times of Crisis*. http://www.oecd.org/coronavirus/policy-responses/keeping-the-internet-up-and-running-in-times-of-crisis-4017c4c9/

OECD. (2020b). *Dealing with Digital Security Risk During the Coronavirus COVID-19 Crisis*. http://www.oecd.org/coronavirus/policy-responses/dealing-with-digital-security-risk-during-the-coronavirus-covid-19-crisis-c9d3fe8e/

PwC Türkiye. (2020). *COVID-19: Operasyonlar ve Tedarik Zinciri Etkisi*. https://www.pwc.com.tr/tr/Hizmetlerimiz/danismanlik/tedarik-zinciri-yonetimi/covid-19-operasyonlar-ve-tedarik-zinciri-etkisi.pdf

Q-Plan. (2019). *Inclusive, Innovative and Reflective Societies-Sensitive Valorisation Concept*.

Reichert, S. (2019). *The Role of Universities in Regional Innovation Ecosystems*. https://eua.eu/resources/publications/819:the-role-of-universities-in-regional-innovation-ecosystems.html

SBB - Türkiye Cumhuriyeti Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı. (2019). *On Birinci Kalkınma Planı (2019-2023)*. http://www.sbb.gov.tr/wp-content/uploads/2019/07/OnbirinciKalkinmaPlani.pdf

STB - Sanayi ve Teknoloji Bakanlığı / TÜBİTAK. (2020a). *COVID-19 Türkiye Web Portalı*. https://covid19.tubitak.gov.tr/

STB - Sanayi ve Teknoloji Bakanlığı / TÜBİTAK. (2020b). *SARS-CoV-2 Epidemiyolojisi Arayüzü*. https://covid19.tubitak.gov.tr/sars-cov-2-arayuzu

Thanh Le, T., Andreadakis, Z., Kumar, A., Gómez Román, R., Tollefsen, S., Saville, M., & Mayhew, S. (2020). The COVID-19 vaccine development landscape. *Nature Reviews Drug Discovery*, *19*(May), 305–306. https://doi.org/10.1038/d41573-020-00073-5

TÜBİTAK. (2019). *TÜBİTAK Açık Bilim Politikası*. https://www.tubitak.gov.tr/sites/default/files/tubitak_acik_bilim_politikasi_190316.pdf

TÜBİTAK. (2020a). *COVID-19 İle Mücadele Çağrısı Başvurularının Değerlendirme Süreci Tamamlandı*. https://tubitak.gov.tr/tr/duyuru/covid-19-ile-mucadele-cagrisi-basvurularinin-degerlendirme-sureci-tamamlandi

TÜBİTAK. (2020b). *Stajyer Araştırmacı Burs Programı (STAR) Başvurularının Değerlendirmeleri Tamamlandı!* https://www.tubitak.gov.tr/tr/duyuru/stajyer-arastirmaci-burs-programi-star-basvurularinin-degerlendirmeleri-tamamlandi

TÜBİTAK. (2020c). *COVID-19 Salgınına İlişkin ARDEB 1001 Programı Kapsamında Özel Çağrı Açıldı*. https://www.tubitak.gov.tr/tr/duyuru/covid-19-salginina-iliskin-ardeb-1001-programi-kapsaminda-ozel-cagri-acildi

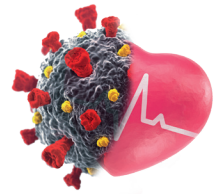
TÜBİTAK. (2020d). *COVID-19 Türkiye Platformu Aşı ve İlaç Geliştirme Sanal Konferansı Düzenledi*. https://covid19.tubitak.gov.tr/duyurular/covid-19-turkiye-platformu-asi-ve-ilac-gelistirme-sanal-konferansi-duzenledi

TÜBİTAK. (2020e). *COVID-19 Türkiye Platformu Türkiye'nin Tanı Gücü Sanal Konferansı Gerçekleştirildi*. https://www.tubitak.gov.tr/tr/haber/covid-19-turkiye-platformu-turkiyenin-tani-gucu-sanal-konferansi-gerceklestirildi

Vitor Gaspar, Raphael Lam, M. R. (2020). *Why social safety nets should be extended long after lockdown*. World Economic Forum COVID Action Platform. https://www.weforum.org/agenda/2020/05/fiscal-policies-for-the-recovery-from-covid-19

WHO. (2020). *A Coordinated Global Research Roadmap: 2019 Novel Coronavirus*. https://www.who.int/blueprint/priority-diseases/key-action/Coronavirus_Roadmap_V9.pdf?ua=1

WHO. (2018). Biosecurity and Biosafety Factsheet Access: https://www.who.int/influenza/pip/BiosecurityandBiosafety_EN_20Mar2018.pdf



The Effects of COVID-19 Pandemic on Academic Researches and Publications

Haydar Yalçın

Muzaffer Şeker

Assoc. Prof. Haydar Yalcin

Dr. Yalcin is an Associate Professor on Information Management and Technology subject. His research interest is investigating the relationship between scientific productivity and scholarly communication. He is using data mining applications for extracting usable patterns to direct science and technology policy. He performs scientometric analysis and patent analysis on emerging technology subjects to prepare scenario-based technology management studies. He published many book chapters and articles in different national and international journals. His research areas are knowledge management, measuring scietntific productivty, scientometrics, patent analysis, network visualization, scholarly communication.

Prof. Muzaffer Şeker

TÜBA President, Prof. Muzaffer Şeker received his PhD in Human Anatomy at Leicester University, Faculty of Medicine in England. In 2000, he became an associate professor and in 2006, he became a full professor. He worked as an instructor in the United Arab Emirates for two years. Dr. Şeker was appointed as founding-rector of Necmettin Erbakan University in 2018. TÜBA President Dr. Şeker, who currently also teaches at the same university, has been a member in many national and international academic organizations and non-governmental organizations.

The Effects of COVID-19 Pandemic on Academic Researches and Publications

Haydar Yalçın
İzmir Kâtip Çelebi University
haydar.yalcin@ikcu.edu.tr

Muzaffer Şeker
Turkish Academy of Sciences
mseker@tuba.gov.tr

Abstract
This study focused on data-based literature evaluation. For this purpose, various scientometrics and bibliometric analyzes were carried out on scientific documents about coronavirus. Within the scope of the research, social network analysis method was used in order to find answers to the questions sought. The research has made inferences about collaboration models. The dynamics for R&D studies carried out in the pandemic process, which concerns the entire world, are described through productivity, collaboration and funding dynamics. Attention was drawn to the points of use for policy development based on data. If we summarize the prominent results in the study; Although collaborative practices were observed in research and development activities, it was observed that collaborations remained mostly on a national or regional scale. High aggregate constraints (HAC) and low aggregate constraints (LAC) tables allow us to evaluate the positions of actors in coronavirus research in terms of social network analysis values. Coronavirus research has been shown to be a priority research topic on the agenda of the whole world (annual growth rate19.43%.). In coronavirus researches, teams formed in various geographies of the world and their leaders have been identified. Lau SKP, Du LY, Al-Tawfiq JA, Memish ZA are both in the publication performance list and in the network values list. Institutions addressed in China, where the first cases of the pandemic process were observed, undertook a significant share in terms of the number of publications. When we examine the inter-institutional collaboration models, we can say that the institutions do not have a structure prone to collaboration. EU, Wellcome Trust and European Community (EC) have also undertaken a considerable burden, while the University of Hong Kong has also undertaken a significant burden in terms of funding.

Keywords
Coronavirus; COVID-19; anticipatory governance; emergency preparedness; bibliometrics; science and technology policy.

Introduction

We are facing the COVID-19 crisis that has shaken the world. COVID-19 pandemic, which has an incredible influence on production, consumption, daily life, social relations, institutions and society, has turned into an epidemic that has the potential to change the governments, laws and many more of the governments. COVID-19 coronavirus has become a virus that left its mark on 2020 and affects all the ways we do business. Due to this epidemic, which was defined as a pandemic by the World Health Organization (WHO) on March 11, 2020, all the dynamics of daily life, especially the education system, were affected. Many face-to-face activities were either carried out remotely or started in a diluted structure called flexible working hours. These changes, which must be made in the services, have not only affected every area of daily life but also have become a pressure on the economic structures of the countries. Increasing day-to-day death rates and high contagiousness caused the national and international research on the virus to focus on the COVID-19 virus. Almost all countries have started R&D studies and consortiums of various scales have been established in order to get rid of the pandemic process and produce treatment as soon as possible. Although some of the countries have collaborated on this issue, it has been observed that these relations remain limited (Yalçın & Şeker, 2020). On the other hand, many companies competing in the private sector acted together in this process and contributed to the consortium in the development of many technologies including the production of ventilation machines ("Ventilator Challenge UK to start production in COVID-19 fight," 2020).

In our study, the literature of the R&D activities carried out as a result of these dynamics was analyzed. In other words, a literature review was made on the bibliographic data of the COVID-19 articles in the international literature. In this context, especially after the World Health Organization (WHO) has defined the process as a pandemic, the evolutionary trend experienced by the increasing publication pattern has been addressed, and then the focus points have been determined in terms of publication dynamics.

Previous Studies

When the literature is examined, it is seen that there are several studies in which studies on COVID-19 virus are examined using bibliometrics. When the studies are considered in terms of the method they apply, it is seen that they follow a more descriptive way. For example, Zhou and Chen (2020) used systematic review management in their studies to evaluate the publication trends for coronavirus research in the last 20 years based on the prism work flow diagram (Zhou & Chen, 2020). In another study, Kostoff and Morse (2011) examined scientific documents about SARS virus by text mining method; they made evaluations about points such as co-author, country contribution and citation effect (Kostoff & Morse, 2011). Similar studies were carried out for studies on the MERS virus indexed in PubMed (Wang et al., 2016). Wang and others concluded that most of the documents reviewed in their study focused on preventing and controlling the disease. Rabaan et al. (2017) described the bibliometric properties of the publications in the Saudi Arabian hinterland in their studies on the publication dynamics of the MERS virus studies. One of the important results of the study is that epidemiology articles get more citation than other articles (Rabaan, Al-Ahmed, Bazzi, & Al-Tawfiq, 2017). In his study where the 8 highest pathogens identified by the world health organization examined the research trends, Swelleh (2017) examined the indicators such as author productivity, institutional productivity, research collaboration (Sweileh, 2017). In addition, studies approaching COVID-19 research in terms of author dynamics (Andersen, Nielsen, Simone, Lewiss, & Jagsi, 2020), studies aiming to improve the bibliography of publications about COVID-19 (Chen et al., 2020) are observed. On the other hand, it is observed that there are studies focusing on the determination of the nodes that play the role of hotspot in social network analysis and COVID-19 researches, and studies focusing on the determination of the subject areas where the research is concentrated (Jia et al., 2020; Lou et al., 2020; Mao, Guo, Fu, & Xiang, 2020; Yi et al., 2020; Zhai et al., 2020; Zhang et al., 2020). It is possible to say that our study differs from these previously conducted studies in the literature by blending bibliometrics and social network analysis by taking COVID-19 research with a holistic approach.

Research Questions

It is possible to say that our study differs from these previously conducted studies in the literature by blending bibliometrics and social network analysis (SNA) by taking COVID-19 research with a holistic approach. In this context, it is possible to define the questions we seek the answer in our research as follows:

1. *How is the publication trend in COVID-19 studies shaped by years?*
2. *Who are the pioneers in COVID-19 research? How can actors in COVID-19 research be identified in terms of their roles in social network analysis (SNA) values?*
   a. *Who is the most productive author?*
   b. *What is the most productive institution?*
   c. *What is the most productive country?*
3. *What are the funding agencies and their performance in COVID-19 research?*

In order to answer these questions, an online query process was conducted in all databases of Web of Science (WoS) to access bibliographic data of COVID-19 publications. The data obtained as a result of the query was cleaned and recorded in a relational database to be ready for analysis. R[1], Pajek[2] and MS Excel software were used in the analysis of the data, and VosViewer[3] was used in the visualization phase.

Bibliometric indicators

When the data set is examined, it is seen that a total of 29874 document data published between 1968-2020 has been reached. While 4339 of the documents were single authors, it was observed that there were 0,394 documents per author. Collaboration index was calculated as 2.85. The annual growth rate of COVID-19 literature was determined as 19.43%. In the analysis, only the data of the scientific publications, which are citable are used. For this reason, document types such as retracted publication, news item, notes are left out of evaluation. The number of documents analyzed after this filtering process is 20881.

Author productivity

Bibliometric indicators and metrics based on citation analysis were handled together to identify the researchers who carried COVID-19 research. Dominance factor, h-index and citation analysis values of authors were used together to measure author productivity and impact. The dominance factor

[1] https://cran.r-project.org/
[2] http://mrvar.fdv.uni-lj.si/pajek/
[3] https://www.vosviewer.com/

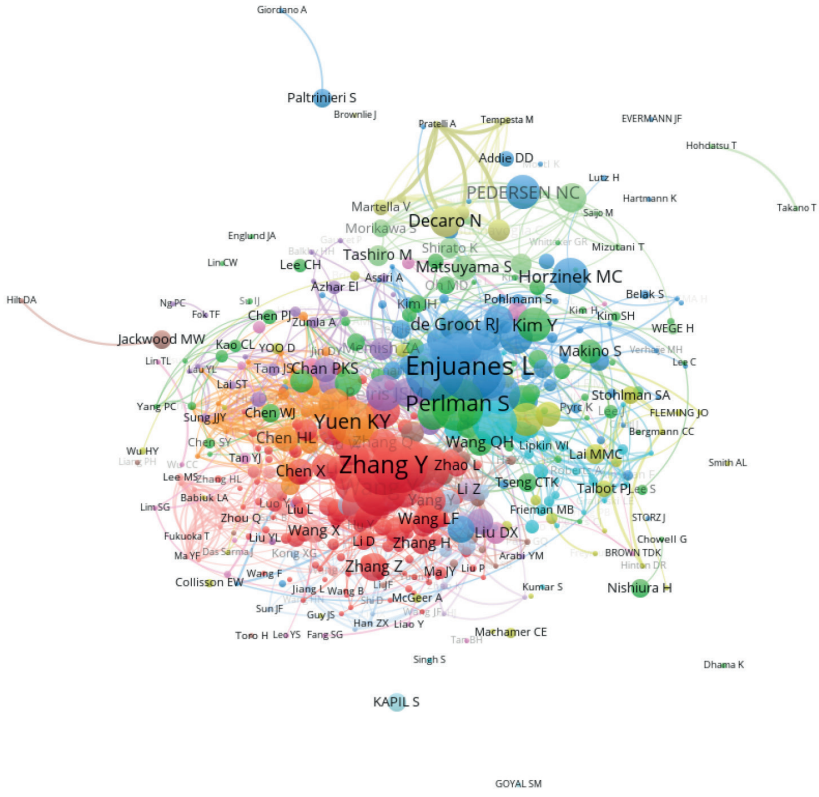
is based on a weighted calculation principle for the first time by Kumar and Kumar (2008), considering the rankings of the authors. Accordingly, the name rankings of the authors in the document serve as a metric to be used to calculate the dominance value of the relevant author (Kumar & Kumar, 2008). In terms of their values, the top 20 authors, are presented in table 1. When the table is examined closely, it is observed that the researchers, who are in the top ranks in terms of dominance factor, have high individual performances, and they have taken the responsibility of first authorship in multi-author studies. In this regard, it can be said that the authors listed in table 1 also assume the leadership role of the research groups formed in COVID-19 studies. With similar analyzes, it is possible to identify research clusters as well as to make inferences about research group leaders. The h-index value is used as another productivity index that expresses the intersection of the number of publications and citations of a scientist. In this metric literature proposed by Hirch (Hirsch, 2005), it is a frequently used metric, although it has been criticized for being an injustice between academics who have just started their research life and academics who have been operating in the field for a long time(Jacso, 2008; Jacso´, 2008; Prasad & Jacsó, 2008). The h-index represents the intersection of the number of publications and the number of citations (Yalcin, H., Shi, W., & Rahman, Z., 2020). Even if an author received more than 100 citations in total, if the total number of publications is 10, the maximum h-index value that the author can receive is limited to 10. In other words, the total number of publications the author has in the h-index plays a decisive role. When comparing authors in h-index calculations, it is recommended that researchers' activity periods are taken into consideration. in fact, it is necessary to be sensitive in using h-index and similar metrics used for calculating scientific productivity.

Table 1. Author Productivity Metrics

Rank by DF	Author	Dominance Factor	Total Documents	Single-Authored	Multi-Authored	First-Authored	Rank by Documents	h-index	Citation sum within h-core	All citations
1	AL-TAWFIQ JA	0.494	85	2	83	41	32	28	2899	3296
2	LAU SKP	0.342	121	1	120	41	14	47	6256	7394
3	WOO PCY	0.323	131	1	130	42	11	48	6420	7748
4	CAVANAGH D	0.253	86	11	75	19	31	41	5893	6429
5	DU LY	0.253	83	0	83	21	39	30	1913	2505
6	MEMISH ZA	0.218	136	3	133	29	9	42	4933	5771
7	WANG L	0.216	112	1	111	24	20	29	3589	3958
8	ZHANG L	0.190	84	0	84	16	33	16	4724	4890
9	WANG J	0.185	124	0	124	23	13	26	2115	2514
10	CHEN Y	0.172	87	0	87	15	29	23	2378	2718
11	POON LLM	0.171	84	2	82	14	33	44	8878	9303
12	WANG Y	0.164	159	0	159	26	5	23	1400	2079
13	LI Y	0.156	147	0	147	23	8	35	4593	5306
14	LIU DX	0.138	94	0	94	13	26	31	1552	2294
15	LIU Y	0.137	117	0	117	16	16	27	5128	5613
16	TAGUCHI F	0.136	83	2	81	11	39	24	1287	1718
17	CHAN PKS	0.131	84	0	84	11	33	31	3184	3703
17	THIEL V	0.131	84	0	84	11	33	36	4847	5352
19	MAKINO S	0.130	92	0	92	12	27	39	2994	3791
20	HAAGMANS BL	0.126	96	1	95	12	25	37	4677	5260

When the authors are ranked in the top twenty in terms of their performance, SNA and graph theory approach have been handled together to analyze the roles they assumed in the network for COVID-19 research. When this framework is examined, it is possible to determine the roles of the authors in the network. Although they perform effectively in terms of the number of publications, the authors who play as a hub in the network make possible the continuity of scholarly communication. When the network map of the authors who contributed to COVID-19 researches in terms of SNA is examined, it is observed that the actors in the network differ in terms of their connection indicators with the authors at the top of the list in terms of publishing performance (Figure 1).

Figure 1. Author Network



When the network map is examined closely, it is noteworthy that Lau SKP, Du LY, Al-Tawfiq JA, Memish ZA are both in the publication performance list and in the network values list. In this respect, it is possible to say that these researchers are important nodes/actors for COVID-19 researches.

Institution Productivity

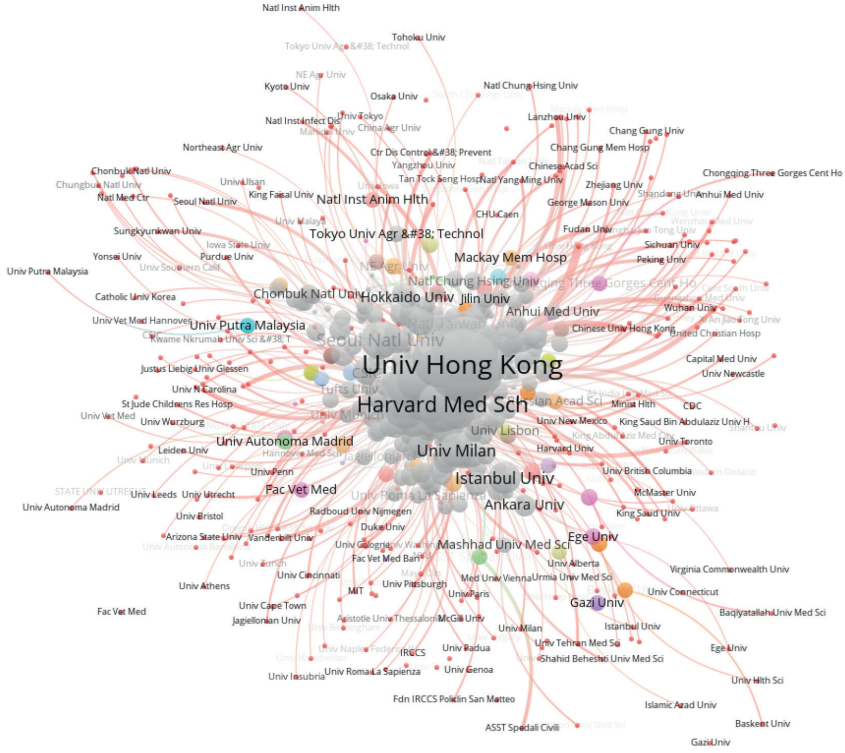
When we examine the COVID-19 documents in terms of institutional productivity, it is possible to say that the institutions addressed in China, where the first cases of the pandemic process were observed, undertook a significant burden in terms of the number of publications. However, when we look at the number of citations that publications have created in the literature, it is possible to make a systemic inference about institutional productivity and their impact. The list created according to the productivity analysis made in this context is presented in Table 2.

Table 2. Institution Productivity

h-index	Unit	Citation sum within h-core	All citations	All Documents
121	UNIV HONG KONG	38884	74375	1267
83	CHINESE UNIV HONG KONG	20631	33648	684
83	UNIV N CAROLINA	10952	21217	434
73	CHINESE ACAD SCI	17538	27279	628
73	VANDERBILT UNIV	9498	14428	308
73	UNIV UTRECHT	10454	17499	358
72	UNIV SO CALIF	9400	16482	277
71	CTR DIS CONTROL & PREVENT	23307	28638	338
70	NIAID	9909	14440	267
70	HARVARD UNIV	13314	15843	213
64	UNIV TORONTO	12037	16855	413
64	UNIV IOWA	7032	15200	392
60	LEIDEN UNIV	9812	13494	239
57	MINIST HLTH	9292	12415	258
54	UNIV WASHINGTON	5804	8165	259
54	UNIV PENN	5581	9099	296
52	UNIV TEXAS	4864	6778	136
49	UNIV BONN	6331	7672	130
49	SCRIPPS RES INST	4565	6526	170
48	ERASMUS MC	8335	9985	158

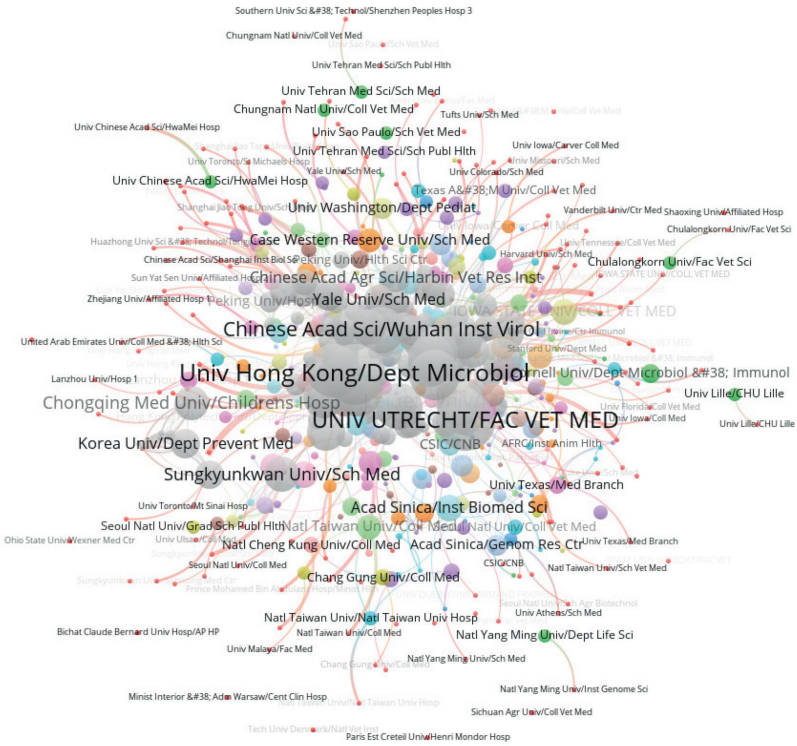
Another remarkable result is the fact that the Chinese addressed institutions, which are the country where the case is first seen, are at the top of the list, and UNIV N CAROLINA is the US representative. When we examine the inter-institutional collaboration models, we can say that the institutions do not have a structure prone to collaboration. It is observed that collaborations are carried out with other units within the same institution. In this regard, although there is an intense search for the diagnosis and treatment of the virus in the pandemic process, it cannot be said that the institutions are very motivated in terms of collaboration (Figure 3).

Figure 2. Institution Network



When the institution network is analyzed, it is worth noting that the organizations addressed in China are in important positions in the network in proportion to the number of publications. At the same time, while it is observed that the institutions addressed in the USA are included in the network, Univ Hong Kong has the highest degree in the social network map created according to the degree of connectivity, while in terms of the value of the interconnection (Figure 3). Betweenness is one of the metrics frequently used in network theory. It represents the degree of network elements (nodes) between each other (De Nooy, Mrvar, & Batagelj, 2018). Considering this metric, a more centralized node has more control over the network than the nodes in the network. In the example in our study, it is possible to say that Chinese Univ Hong Kong, Prince Wales Hospital is an important actor in COVID-19 researches (Table 3).

Figure 3. Affiliation Network



Network members with high aggregate constraints (HAC) appear to be drawn closely together, while low constraints (LAC) are shown as longer connections to highlight structural holes. In this way, it is possible to make inferences about the positions of the nodes in the network and their mobility in the network. Low constrained nodes (LAC) have a more flexible structure in terms of mobility, whereas for constrained large nodes (HAC) they may be the opposite (De Nooy et al., 2018; Prota, Vitale, & D'Esposito, 2017). In this respect, it is possible to say that Utrecht University, Heilongjiang Dealer Agr Univ, Cleveland Clin Fdn, Chinese Univ Hong Kong, Vanderbilt Univ, Univ Hong Kong and Huazhong Univ Sci & Technology are important points in the COVID-19 network. In this respect, it is obvious that the development of the collaboration of the departments in the table will contribute positively to the solution of the pandemic process. Table 3 can be examined for details about the departments such as degree and betweenness centrality metrics.

Table 3. Affiliation Network Metrics

HIGH AGGREGATE CONSTRAINTS (HAC)		LOW AGGREGATE CONSTRAINTS (LAC)		ALL DEGREE		BETWEENNESS CENTRALITY	
UNIV UTRECHT	FAC VET	CTR DIS CONTROL & PREVENT	ATLANTA	UNIV HONG KONG	DEPT MICROBIOL	UNIV HONG KONG	DEPT MICROBIOL
HEILONGJIANG BAYI AGR UNIV	COLL ANIM SCI & VET MED	UNIV HONG KONG	SCH PUBL HLTH	UNIV N CAROLINA	DEPT EPIDEMIOL	UNIV UTRECHT	FAC VET MED
CLEVELAND CLIN FDN	DEPT NEUROSCI	CHINESE ACAD SCI	WUHAN INST VIROL	UNIV HONG KONG	LI KA SHING FAC MED	UNIV HONG KONG	LI KA SHING FAC MED
CHINESE UNIV HONG KONG	PRINCE WALES HOSP	UNIV UTRECHT	FAC VET MED	UNIV IOWA	DEPT MICROBIOL	UNIV IOWA	DEPT MICROBIOL
VANDERBILT UNIV	MED CTR	UNIV PENN	PERELMAN SCH MED	CHINESE ACAD SCI	WUHAN INST VIROL	LEIDEN UNIV	MED CTR
UNIV HONG KONG	LI KA SHING FAC MED	UNIV BONN	INST VIROL	UNIV UTRECHT	FAC VET MED	UNIV HONG KONG	SCH PUBL HLTH
HUAZHONG UNIV SCI & TECHNOL	TONGJI HOSP	NIAID	VACCINE RES CTR	CHINESE ACAD SCI	INST MICROBIOL	CHINESE ACAD SCI	WUHAN INST VIROL
UNIV SO CALIF	SCH MED	NIAID	INFECT DIS LAB	LEIDEN UNIV	MED CTR	UNIV N CAROLINA	DEPT EPIDEMIOL
SUNGKYUNKWAN UNIV	SCH MED	NIH	FOGARTY INT CTR	UNIV N CAROLINA	DEPT MICROBIOL & IMMUNOL	CTR DIS CONTROL & PREVENT	ATLANTA
UNIV HONG KONG	QUEEN MARY HOSP	UNIV BONN	MED CTR	UNIV BONN	MED CTR	GUANGZHOU MED UNIV	AFFILIATED HOSP 1
SHANGHAI JIAO TONG UNIV	SCH MED	CSIRO	AUSTRALIAN ANIM HLTH LAB	UNIV TEXAS MED BRANCH	DEPT MICROBIOL & IMMUNOL	HARVARD UNIV	SCH MED
WASHINGTON UNIV	SCH MED	GUANGZHOU MED UNIV	AFFILIATED HOSP 1	VANDERBILT UNIV	MED CTR	CHINESE UNIV HONG KONG	PRINCE WALES HOSP
UNIV GRONINGEN	UNIV MED CTR GRONINGEN	EMORY UNIV	SCH MED	GUANGZHOU MED UNIV	AFFILIATED HOSP 1	UNIV N CAROLINA	DEPT MICROBIOL & IMMUNOL
VANDERBILT UNIV	SCH MED	UNIV PITTSBURGH	SCH MED	UNIV HONG KONG	STATE KEY LAB EMERGING INFECT DIS	CORNELL UNIV	COLL VET MED
UNIV CHINESE ACAD SCI	HWAMEI HOSP	UNIV PENN	DEPT MICROBIOL	NEW YORK BLOOD CTR	LINDSLEY F KIMBALL RES INST	NATL UNIV SINGAPORE	YONG LOO LIN SCH MED
NATL TAIWAN UNIV	COLL MED	CHINESE ACAD MED SCI	PEKING UNION MED COLL HOSP	UNIV HONG KONG	SCH PUBL HLTH	EMORY UNIV	SCH MED
PRINCE MOHAMED BIN ABDULAZIZ HOSP	MINIST HLTH	CHARITE UNIV MED BERLIN	INST VIROL	HARVARD UNIV	SCH MED	UNIV VIRGINIA	SCH MED
NATL CHENG KUNG UNIV	COLL MED	UNIV COLORADO	SCH MED	ALFAISAL UNIV	COLL MED	SUNGKYUNKWAN UNIV	SCH MED
HUAZHONG UNIV SCI & TECHNOL	UNION HOSP	UNIV IOWA	DEPT MICROBIOL & IMMUNOL	CHINESE UNIV HONG KONG	PRINCE WALES HOSP	CHINESE ACAD SCI	INST MICROBIOL
HUAZHONG UNIV SCI & TECHNOL	TONGJI MED COLL	KANSAS STATE UNIV	COLL VET MED	UNIV VIRGINIA	SCH MED	VANDERBILT UNIV	MED CTR

Country Productivity

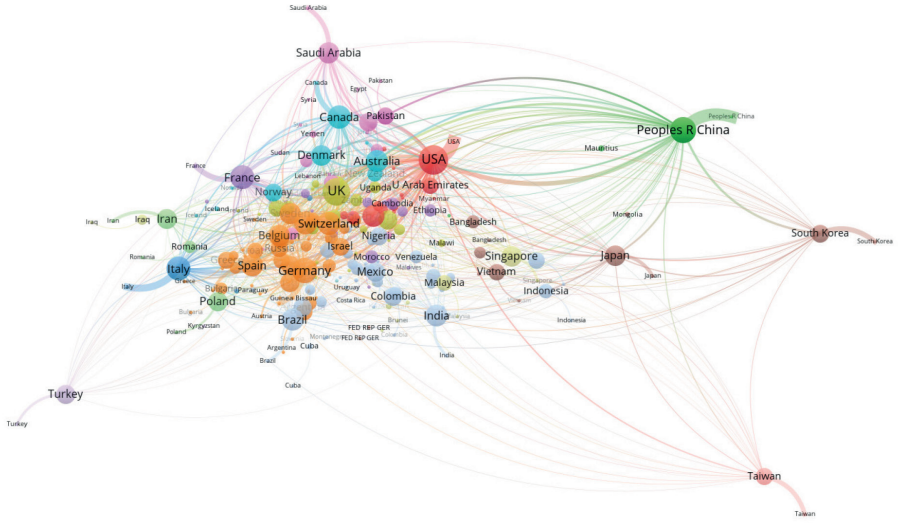
Country contribution and impact values are presented in table 4. In this context, it is observed that although China is below the USA in terms of the number of publications, the number of publications and citations is at the top of the list in terms of the h-index values that constitute the intersection point.

Table 4. Country Productivity

COUNTRY	CITATION SUM WITHIN H-CORE	ALL CITATIONS	ALL DOCUMENTS	H-INDEX
PEOPLES R CHINA	200216	473723	16674	281
USA	101957	496289	20838	234
GERMANY	40350	90324	3501	136
NETHERLANDS	39785	80916	1839	133
UK	37029	90448	4930	131
CANADA	44301	101736	3582	129
SAUDI ARABIA	25945	57489	1977	114
FRANCE	16565	42574	3183	94
AUSTRALIA	15842	32766	2076	85
ITALY	9976	34279	5656	81
TAİWAN	12663	45553	2556	79
SWITZERLAND	12509	24128	1188	79
JAPAN	9106	31248	2016	71
SINGAPORE	13268	31126	1527	71
SPAIN	9426	20302	1569	69
SOUTH KOREA	7908	31302	2572	68
SWEDEN	10582	16758	579	54
BELGIUM	4728	8698	611	50
FINLAND	8616	11033	268	49
THAILAND	5245	7208	372	42

When the network map is analyzed, it is worth noting that although the cooperation between the USA and China is observed, these collaborations are limited, as with all other countries. It is observed that the countries in the European Union form a research cluster among them (Orange cluster), while Asian countries also form a cluster in the spiral of Japan, South Korea and Taiwan. On the other hand, it is observed that Saudi Arabia, which has reached a certain critical intensity especially in publication activities during MERS virus and coronavirus researches, is also in cooperation with various countries, especially European countries (Figure 4).

Figure 4. Country Collaboration Network

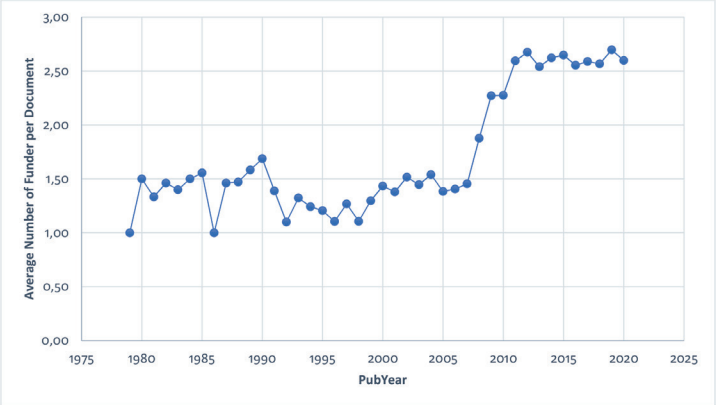


Funding Dynamics

Scientists who continue their studies in search of diagnosis and treatment for the virus in the pandemic process need a budget in order to carry out these studies. Funding is used as a critical instrument to perform scientific activities. In this part of the study, the funding situations in the studies conducted for the COVID-19 outbreak, which is considered as a pandemic process in human history, are described. The purpose of this analysis is to reveal the analysis of the support provided by the important institutions that direct the R&D and Science policies of the countries to the COVID-19 research. In this regard, it is possible to state that there are 8843 publications supported by a fund provider. It is seen that the publication[4] with the most funding support is supported by a total of 56 funders. It is observed that the average number of funders per publication does not fall below 2 as we approach today. We have already mentioned that collaborative research is conducted only with other units within the institution. This table that appears here differs from the research trend mentioned. This may be attributed to funders operating more nationally or internationally than regionally (Figure 5).

[4] Graft Cryopreservation Does Not Impact Overall Survival after Allogeneic Hematopoietic Cell Transplantation Using Post-Transplantation Cyclophosphamide for Graft-versus-Host Disease Prophylaxis

Figure 5. Number of Funder per Documents (average)



When we look at funders based on the number of publications they support and the effects they create in the literature based on citation analysis, the dominance of US addresses is clearly seen. While the USA, China, UK and EU representative funders follow, the US-sponsored funds in terms of their impact in the literature, although the publications supported by the Chinese Natural Foundation (National Natural Science Foundation of China) are at the top of the list in terms of numbers. it is possible to observe that it lags supported studies. When we look closely at the main activity areas of the funders, it is seen that the funding burden is similarly met by the institutions specialized in the field of health. In terms of general funders, it is possible to say that funders such as EU, Wellcome Trust and European Communities (EC) have also undertaken a considerable burden, while the University of Hong Kong has also undertaken a significant burden in terms of funding. In this regard, it is useful to say that it is important how much the institutions act depending on their focus in R&D activities regardless of their scale.

h-index	Funding Unit	Citation sum within h-core	All citations	All documents
100	NIAID NIH HHS United States Department of Health & Human Services National Institutes of Health (NIH) - USANIH National Institute of Allergy & Infectious Diseases (NIAID)	20506	44279	743
67	NINDS NIH HHS United States Department of Health & Human Services National Institutes of Health (NIH) - USANIH National Institute of Neurological Disorders & Stroke (NINDS)	7186	12989	280
56	NIGMS NIH HHS United States Department of Health & Human Services National Institutes of Health (NIH) - USANIH National Institute of General Medical Sciences (NIGMS)	7490	9423	133
52	NIH United States Department of Health & Human Services National Institutes of Health (NIH) - USA	5050	9223	310
50	National Institutes of Health United States Department of Health & Human Services National Institutes of Health (NIH) - USA	5540	9485	287
47	NCI NIH HHS United States Department of Health & Human Services National Institutes of Health (NIH) - USANIH National Cancer Institute (NCI)	5638	6838	100
45	PHS HHS United States Public Health Service	7188	7773	75
42	National Natural Science Foundation of China National Natural Science Foundation of China	4204	9161	755
39	Wellcome Trust Wellcome Trust	5456	6011	82
36	Medical Research Council Medical Research Council UK (MRC)	2883	3549	84
33	European Union European Union (EU)	2759	3322	89
31	NCRR NIH HHS United States Department of Health & Human Services National Institutes of Health (NIH) - USANIH National Center for Research Resources (NCRR)	2530	3108	75
30	NHLBI NIH HHS United States Department of Health & Human Services National Institutes of Health (NIH) - USANIH National Heart Lung & Blood Institute (NHLBI)	2272	2486	50
25	Biotechnology and Biological Sciences Research Council Biotechnology and Biological Sciences Research Council (BBSRC)	1768	2305	70
24	European Commission European Commission Joint Research Centre	1506	1827	53
23	National Institute of Allergy and Infectious Diseases United States Department of Health & Human ServicesNational Institutes of Health (NIH) - USANIH National Institute of Allergy & Infectious Diseases (NIAID)	1629	1873	56
23	University of Hong Kong University of Hong Kong	1894	2058	41
22	Deutsche Forschungsgemeinschaft German Research Foundation (DFG)	1323	1553	51
22	European Community European Community (EC)	1958	2067	33
19	Swiss National Science Foundation Swiss National Science Foundation (SNSF)	1851	1971	40

Discussion

In this study, in which we examined the literature of COVID-19 researches, it was observed that international collaborations did not develop at the desired level although there was a seeking behavior for a solution for the virus as soon as possible during the pandemic process as a global level. The high cost of vaccination research, the differentiation of science policies of the countries can be shown as the obstacles for scientists to develop collaborations. However, it is very important for countries to take a data-based approach in decision making, especially in such situations that concern humanity. In this regard, supporting the studies and practices that center on the data, which we can call as anticipatory governance, will both enable a proactive management in the area of localization in the crisis period and enable the monitoring of the effects of the decisions taken. In the analyzes made, it is clearly seen that the studies on coronavirus focus primarily on diagnosis and treatment. Within the framework of seeking solutions, seeing that many brands working as rivals can take part in the same consortium to produce respirators, taken as an example for developing collaborations, and similar approaches should be evaluated at the R&D stage and on scientific research. While the analysis conducted in terms of funders shows that the number of funding institutions is very limited in COVID-19 researches, it is seen that it takes time to transform the results produced from the researches supported by the institutions that direct science policies of countries into scientific documents. In this respect, it is necessary to focus on an action plan for conducting scientific research activities in pandemic and similar crisis settings.

The difficulties in accessing scientific information in the early period of the pandemic process also showed the importance of knowledge asymmetry. In this respect, there are things to do about open science, open research data and management. In other words, it is useful to identify policies that prevent one side from having better or more information than others in searches for solutions to global crises such as the pandemic process that concerns humanity. This can be turned into an advantage with regulations on the management of open science and research data. In this context, funders, especially universities, need to determine policies. This can be turned into an advantage with regulations on the management of open science and research data. Countries that realize the importance of sharing research data make various arrangements in this regard. The U.S. National Science Foundation has been requesting a data management plan from its researchers, from which it has funded since 2011 (Bishoff & Johnston, 2015; Zencir & Oğuz, 2020). In order to prevent the negative effects of information asymmetry, studies should be conducted to identify the actors connected to the HAC and LAC indicators conducted in our study and to develop collaborations on these nodes. As exemplified in this study, determining the pioneers of the area, determining the institutions and countries that give direction to the area will provide important outputs for making a conscientious decision. In this respect, determining the research teams, determining their leaders will be used as an important instrument in budget distribution, for example, and will enable effective management

of limited resources. It is also important to focus on the management of open science and open research data to create the infrastructure necessary to eliminate existing information asymmetry. The number of publications addressed in China is a significant size, and the publications show similar results in terms of citation values. It is worth noting that the publications on the cases in Wuhan, where the virus was first seen, had an important effect on this issue. On the other hand, opening the data obtained in search of solutions for the pandemic process to everyone is necessary for fast and reliable progress in the process. In this respect, it should be remembered that research data has a key importance in the scientific world regarding its use for verification purposes, economic and social values. For this reason, the data must be made accessible and barriers to sharing must be removed. In this context, it is necessary to decide on various models to provide access to scientific information and the data produced from them while creating a science and technology policy for the emergency conditions during the pandemic and crisis periods. Numerous stakeholders play important roles in research and innovation during emergency or pandemics. These include but are not limited to communities affected by the outbreak; national and international researchers and research institutions; charities, public developers and manufacturers and Private sectors; multilateral organizations; and numerous joint research networks. Different and occasionally conflicting values, perspectives and priorities, each with its stakeholder, adding an additional layer of complexity. Preparation planning is essential to effectively deal with epidemics or emergencies. An anticipatory governance approach is essential in pandemic processes such as COVID-19, to share and harmonize activities in the field of emergency preparedness at national and international level, to strengthen country capacities and to carry out coordinated and effective support efforts for cross-border health threats.

The desire to quickly share the findings reached during the pandemic process with the scientific world has brought some ethical problems. In addition, ideological approaches cause academic results to be erroneous. The journal's uncontrolled publication processes to announce the results to the scientific world quickly lead to the spread of such political or ideological approach with misinterpretation of data. Unfortunately, even very reputable and prestigious academic journals fall into this error (Bayram et al., 2020; Koca, 2020). Such biased, erroneous and directive studies also harm the process of combating the pandemic in countries. Instead of scientific publications, some of the researchers prefer to share their views on social media without any peer review and ethical concerns. The widespread and rapid impact of social media has caused such comments and information to spread very quickly in the eyes of the societies, creating fear and anxiety. Even studies based on personal interpretations, not on data, increased in this period. In addition to such publications, there are also studies analyzing the situation in countries according to scientific data. Reports and books published by TÜBA can be evaluated in this respect (Şeker et al., 2020; Özgenç et al. 2020). TÜBA has created multidisciplinary reports by compiling scientific publications on the pandemic and the chronological course of the outbreak in the world, including the developments in diagnosis

and treatment, as other science academies. TÜBA has opened its scientific projects and studies to online access to the scientific world and researchers with the responsibility of being a science academy..

It is important to publish with academic responsibility especially during the pandemic process. At this point, journals and publishers as well as academics have an important ethical duty. In extraordinary situations such as COVID-19, the desire of the scientific community to find a solution as soon as possible and to share the results with the public, prevents the peer evaluation processes in scientific studies to be carried out with the required quality. Failure to review the progress in R&D processes with due diligence may cause the related publications to be withdrawn or retraction later. In this respect, it is observed that a similar situation is experienced in studies conducted on the 2019 coronavirus pandemic. Until now-as of August 25, 2020- the number of publications published in the field of COVID-19 in the WoS and retracted for various reasons (2), the number of publications published as correction is 163. Considering the document type while examining the relevant literature, it will also ensure that the information is correct and that necessary peer review has been done, and the necessity of verifying the data obtained from document types such as letter to the editor (letter), communication (correspondence) should be underlined. Within this framework, the accuracy and reliability of the information produced especially in the areas that emerge can be ensured. Researchers all over the world seeking solutions to the pandemic process and transforming research into publications have made the amount of information produced on the subject difficult to manage. It is obvious that refereeing or peer evaluation, which is one of the most basic tools of quality control in scientific publishing, becomes more difficult, especially due to the increasing amount of information in this process. Precisely at this stage, the need for peer assessment to be carried out with all possible details should be underlined once again.

References

Andersen, J. P., Nielsen, M. W., Simone, N. L., Lewiss, R. E., & Jagsi, R. (2020). COVID-19 medical papers have fewer women first authors than expected. *Elife, 9*. doi:10.7554/eLife.58807

Bayram, H., Köktürk, N., Elbek, O., Kılınç, O., Saymer, A., & Dağh, E. (2020). Interference in scientific research on COVID-19 in Turkey. *The Lancet, 396*(10249), 463-464.

Bishoff, C., & Johnston, L. (2015). Approaches to Data Sharing: An Analysis of NSF Data Management Plans from a Large Research University. *Journal of Librarianship & Scholarly Communication, 3*(2).

Chen, Y., Guo, Y. B., Guo, R., Chen, X. F., Chang, G. H., Li, X., . . . Zhang, Z. L. (2020). [Visual analysis of coronavirus disease 2019 (COVID-19) studies based on bibliometrics]. *Zhongguo Zhong Yao Za Zhi, 45*(10), 2239-2248. doi:10.19540/j.cnki.cjcmm.20200320.501

De Nooy, W., Mrvar, A., & Batagelj, V. (2018). *Exploratory social network analysis with Pajek: Revised and expanded edition for updated software* (Vol. 46): Cambridge University Press.

Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National academy of Sciences, 102*(46), 16569-16572.

Jacso, P. (2008). The pros and cons of computing the h-index using Web of Science. *Online Information Review*.

Jacso´, P. t. (2008). The pros and cons of computing the h-index using Google Scholar. *Online Information Review, 32*(3), 437-452.

Jia, Q., Shi, S., Yuan, G., Shi, J., Shi, S., & Hu, Y. (2020). Analysis of knowledge bases and research hotspots of coronavirus from the perspective of mapping knowledge domain. *Medicine (Baltimore), 99*(22), e20378. doi:10.1097/MD.0000000000020378

Koca, F. (2020). Promotion of scientific research on COVID-19 in Turkey. *The Lancet, 396*(10253), E25-E26

Kostoff, R. N., & Morse, S. A. (2011). Structure and infrastructure of infectious agent research literature: SARS. *Scientometrics, 86*(1), 195-209. doi:10.1007/s11192-010-0240-6

Kumar, S., & Kumar, S. (2008). *Collaboration in research productivity in oil seed research institutes of India*. Paper presented at the Proceedings of Fourth International Conference on Webometrics, Informetrics and Scientometrics.

Lou, J., Tian, S. J., Niu, S. M., Kang, X. Q., Lian, H. X., Zhang, L. X., & Zhang, J. J. (2020). Coronavirus disease 2019: a bibliometric analysis and review. *Eur Rev Med Pharmacol Sci, 24*(6), 3411-3421. doi:10.26355/eurrev_202003_20712

Mao, X., Guo, L., Fu, P., & Xiang, C. (2020). The status and trends of coronavirus research: A global bibliometric and visualized analysis. *Medicine (Baltimore), 99*(22), e20137. doi:10.1097/MD.0000000000020137

Özgenç, İ., Akkanat, H., Çağlar, H., ... &. Tumay. M. (2020). TÜBA COVID–19 Global Outbreak Report on Judicial Changes and Interactions. Ankara: Turkish Academy of Sciences Publications. Report No: 40.

Prasad, A., & Jacsó, P. (2008). The pros and cons of computing the h-index using Scopus. *Online Information Review*.

Prota, L., Vitale, M. P., & D'Esposito, M. R. (2017). Topology and evolution of collaboration networks: the case of a policy-anchored district. In *Knowledge and Networks* (pp. 169-190): Springer, Cham.

Rabaan, A. A., Al-Ahmed, S. H., Bazzi, A. M., & Al-Tawfiq, J. A. (2017). Dynamics of scientific publications on the MERS-CoV outbreaks in Saudi Arabia. *J Infect Public Health, 10*(6), 702-710. doi:10.1016/j.jiph.2017.05.005

Sweileh, W. M. (2017). Global research trends of World Health Organization's top eight emerging pathogens. *Global Health, 13*(1), 9. doi:10.1186/s12992-017-0233-9

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). Covid-19 Küresel Salgın Değerlendirme Raporu. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34.

Ventilator Challenge UK to start production in Covid-19 fight. (2020). Retrieved from https://ecgassociation.eu/article/?id=3146

Wang, Z., Chen, Y., Cai, G., Jiang, Z., Liu, K., Chen, B., . . . Gu, H. (2016). A Bibliometric Analysis of PubMed Literature on Middle East Respiratory Syndrome. *Int J Environ Res Public Health, 13*(6). doi:10.3390/ijerph13060583

Yalcin, H., Shi, W., & Rahman, Z. (2020). A review and scientometric analysis of supply chain management (SCM). *Operations and Supply Chain Management: An International Journal*, *13*(2), 123-133.

Yalçın, H., & Şeker, M. (2020). Küresel Salgın Öncesi ve Sürecindeki Koronavirüs Araştırmaları Literatürünün Bibliyometrik Analizi ve Salgın Sonrasındaki Dönem için Değerlendirmeler (1969-2020). In M. Şeker, A. Özer, & C. Korkut (Eds.), *Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği*. Ankara: Turkish Academy of Sciences.

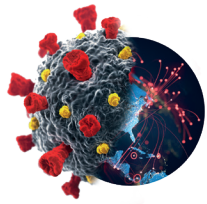
Yi, W., Wang, Y., Tang, J., Xiong, X., Zhang, Y., & Yan, S. (2020). [Visualization analysis on treatment of coronavirus based on knowledge graph]. *Zhonghua Wei Zhong Bing Ji Jiu Yi Xue, 32*(3), 279-286. doi:10.3760/cma.j.cn121430-20200225-00200

Zencir, M. B., & Oğuz, T. (2020). The Attitudes of Ankara University Researchers towards Research Data Management and Barriers to Data Sharing. *Information World, 21*(1). doi:doi:10.15612/BD.2020.806

Zhai, F., Zhai, Y., Cong, C., Song, T., Xiang, R., Feng, T., . . . Liang, J. (2020). Research Progress of Coronavirus Based on Bibliometric Analysis. *Int J Environ Res Public Health, 17*(11). doi:10.3390/ijerph17113766

Zhang, L., Li, B., Jia, P., Pu, J., Bai, B., Li, Y., . . . Zhang, N. (2020). [An analysis of global research on SARS-CoV-2]. *Sheng Wu Yi Xue Gong Cheng Xue Za Zhi, 37*(2), 236-245. doi:10.7507/1001-5515.202002034

Zhou, Y., & Chen, L. (2020). Twenty-Year Span of Global Coronavirus Research Trends: A Bibliometric Analysis. *Int J Environ Res Public Health, 17*(9). doi:10.3390/ijerph17093082



The Future of States in the Context of Administrative Capacity: Democracy After COVID-19 Pandemic

Haluk Alkan

Prof. Haluk Alkan

Prof. Haluk Alkan graduated from the department of Public Administration at Istanbul University in 1992. He had an M.A. in the department of Politics and Social Sciences at the same university in 1995. He completed his PhD in the department of Politics and Social Sciences at Marmara University in 1998. He became an associate professor in the field of political history and institutions in 2005 and a professor in the field of politics and social sciences in 2010. Dr. Alkan who worked at Kahramanmaraş Sütçü İmam University, Erciyes University and Marmara University is a professor in the department of Political Science and International Relations at Istanbul University now. He studies political science, comparative politics, political institutions and Turkish political history and gives undergraduate and graduate courses in these areas. In 2003, he carried out field research as a project manager in Kazakhstan and Kyrgyzstan in the field of the Turkic Republics in terms of the strategic priorities of Turkey. Also, he stayed at Indiana University (IUPUI) in the US for academic studies in 2007.

The Future of States in the Context of Administrative Capacity: Democracy After COVID-19 Pandemic[1]

Haluk Alkan
Istanbul University
haluk.alkan@istanbul.edu.tr

Abstract
States have emerged in different forms as phenomena with a very ancient historical background. It seems that states tend to expand quantitatively and functionally in the historical development process. On the other hand, the arguments that the globalization process eroded this position of the states have been frequently came to the agenda after the 1990s. However, the recent developments prove that the state still has preserved its prominence. The COVID-19 pandemic is one of these developments that the state is getting stronger again. The COVID-19 pandemic has triggered a process of change in many areas, from the health sector to economic and political stability, and social relations. The pandemic also raised new debates about the future role of the state. These discussions include both the re-construction of the state and its relationship with democracy. In this article, first, the approaches on the autonomy of the state are elaborated, and the prominent concepts about the state and democracy are analysed after the globalization process and the dissolution of the Soviet Union. Then, in light of multi-faceted effects of COVID-19, the state's new role is tried to be determined. In the study, the potential possibilities are discussed through four different models based on the institutional capacity of states and its relationship with democracy.

Keywords
State, Pandemic, COVID-19, Democracy

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Besides affecting the daily lives of the people, COVID-19 global pandemic has created many new problems in social relations, in the economy, in accessing public services and in the exercise of rights and freedoms. As a result of these unprecedented problems, new debates pertaining to the role and function of the states have been brought to the agenda. We now discuss more of the state and states than before COVID-19, make assessments and comparisons regarding the performances of the authorities. The pandemic, on one hand, has forced countries to turn inward, and on the other hand it has triggered a process that required international cooperation in many fields. Apparently, the problems of such a process, which have opposite aspects, can only be overcome by states. Moreover, it is observed that the policies and different leadership forms pursued against COVID-19 can be effective in preventing the pandemic or may lead to results that can deepen it in a negative way. Hence, as the importance of the states increases, the necessity of concentrating on the question of how they should be structured in the new normal emerges as well.

This study focuses primarily on different ways of handling the state's autonomous position and discusses various practices and debates on the state within the context of institutional reform and democracy just before the pandemic. Furthermore, in the light of the socioeconomic and political effects of the COVID-19 pandemic, the study examines the reactions of the states in the context of the relationship between institutional capacity and democracy. Also, it elaborates on the potential changes regarding the future of states in line with the different models that emerge.

State and Debates on State Autonomy

Despite the existence of some contrasting views, the emergence of states goes long way back in human history. The state, which has existed for more

than five thousand years, has emerged in different forms naturally in terms of institutions. Whether it is scaled or qualified as a city, region, empire, or nation-states, a robust yet flexible structure stands before us. The state as an organized form of sovereignty over a group of people living in a particular piece of land, (Bulgan, 2017: 112), has undergone different assessments in terms of its being, formation, legitimacy and function along with becoming a subject of different definitions and classifications. Despite all these different approaches, the state becomes prominent with an administrative structure in which many geographical, political, military, economic and bureaucratic institutions associate together to form a unity. Moreover, in a way to reflect a worldview states involve spatial organization, temporal arrangements, control and decision-making mechanisms and thus differ from each other. In this sense, the state stands before us as an entity that can regenerate itself in the historical development process.

Since its first formation, the state manifests itself with an organizational structure shaped in line with the requirements and environmental characteristics it interacts with. Although the first states based on conquest and field control started to organize on the basis of the army, they had to develop new organizational functions that surpass this. Apart from the armed forces, the development of the tax collection system, police services, regular food production and distribution, the formation of the technical personnel required form the dimensions of the expansion. States tend to expand spatially and functionally.

This process involves a change that we call the autonomy of the state. The main emphasis here is on the question of whether the state which is positioned on the relations between the governing and the governed in terms of autonomy, is an entity that sets its environment or not. While the state was shaped around the abilities and representation of the individual or a small group previously, organizational expansion and the necessity to establish regular rules and change mechanisms regarding this, necessarily consolidated the understanding of institutional autonomy over time. We are no longer talking about The Leviathan of Hobbes or The Prince of Machiavelli, but about an institutional community and relationships (Carroll, 2009: 557). This can be illustrated in the Weberian state approach. According to Weber, the state claims the monopoly of the legitimate use of power. In a modern sense, this monopoly manifests itself with a bureaucratic structure and staff organized on a rational ground. Weberian understanding of the state highlights the organizational autonomy independent of the administrators itself. With this respect, the state becomes prominent as an organization that operates according to pre-determined rules pursuant to rational purposes (Greenaway & Nelson, 2008: 6; Weber, 2006: 27). Oppenheimer (2005) argues that every state in history is a state of classes continues even today and emphasizes that each state is fundamentally a hierarchy of superior and inferior social groups. The fact that the existence of states dates to ancient times makes it difficult to explain its existence in terms of an exploitation relationship based on scarce resources. As for Oppenheimer,

the raison d'être of the state may be "legal", rather than "natural scarcity", and in this sense the state is a result of conquest and subjugation. The state has not remained as it is, yet it has changed towards the free citizenship system by passing through many stages. Although the contemporary constitutional state is essentially based on the same historical origins, unlike the class struggle it is distinguished by the fact that it forms a team of civil servants representing the interests of the state as a whole. Civil servants settle disputes among rival classes by objecting the extremes of different camps and making the necessary arrangements in circumstances where social development enables new legal regulations. In Carl Schmitt's views, the autonomy of the state over authority is highlighted as an ultimate supreme entity against conflicts and competitions among social groups who fail to take decision (Moore, 2010: 721-734). Eroğul (2017) argues that the state has to provide internal integrity as it bears responsibilities both for the competing classes and its own human resources. These responsibilities lead the state to penetrate all spheres of social life and to use different means and structures. By creating a sovereign culture in the process, the state can sometimes differ from social groups or reflect them. The threat perception of the ruling culture also shapes its relations with the citizens.

Yet, a consensus has not been reached between parties in terms of the relative autonomy of the state. Even the opinions that emphasize the autonomous identity of the state are positioned against the approaches that consider the state as a determined phenomenon. Although it is explained by different dynamics, there is a partnership among the classical Marxist approach, the pluralist group theory, and the behavioral approach's understanding of the state in general, in terms of the fact that it is determined by socioeconomic process and formations. While classical Marxist approaches have conceived of the state as a reflection of relations of production or even as a means of repression (Dunleavy & O'Leary, 1988: 206-207)The pluralist group approach has degraded the state into a decision-making process that worked in line with the effects of conscious interest groups competing on public policy (Burns, 1984: 526-527). Nonetheless, among the followers of these approaches, which consider the state as a designated entity, there was a shift towards new views that accepted the relative autonomy of the state. For instance, Poulantzas agrees with the view that the state is a means for exploiting classes in the Marxist sense, yet he also acknowledges that the capitalist groups have the autonomy and manipulative power due to the conflict of interests among themselves. The state endeavors for the recognition of the class power that it reflects on social level based on consent (Poulantzas, 1976).

Undoubtedly, the Keynesian view of the state has a significant place in the functional expansion of the state. There are studies that tracing the roots of the Keynesian state to the laws enacted in Bismarck Germany. The Keynesian approach is based on the notion that the market system alone is inefficient in ensuring full employment, and that state's public investments and expenditures should play an active role in the redistribution of income (Barr, 2004). At this

juncture, by playing the role of market actor and demand guide, the state has become an arbitrator that is able to penetrate all social areas through the economy. When it comes to the autonomy of the state, it is essential to touch upon the analysis of the new institutionalism approach that makes the state focal point again and reinterpret it. By indicating that state institutions form a culture, historical institutionalists highlight that the accumulation which renovates itself constantly causes the state to become relatively autonomous and established as guiding institutional integrity. The emergence of institutions as an outcome of historical circumstances and maintaining themselves by gaining flexibility to encounter with the changes in the economy and society, over time, transform institutions into reflections of the state as an accumulation of economy and culture (Beyme, 2006). As such, when we say, "Britain took the decision", "Turkey tends to do so", we actually make personalization via state and refer to a broad administrative culture. In this sense, the state is both a rationality and a cultural tradition. On macro level, the state constructs rights, determines and limits powers, set objectives of the economy, builds infrastructure, implements policies that stimulate demand and produces meanings on national level via representations, rituals, symbols, monuments, discourses (Anderson, 2007). The state; is a sum of ideas, systems, meanings, practices and priorities. The systematic reflection of a certain idea involves the operation of political actors in accordance with the priorities of the society and the economy.

As a result, this meaning is materialized via traditions, institutional experiences, other dimensions of culture, administrative units and structures. Therefore, the state structure cannot be considered independent of the administrative culture and the administrative culture from the culture of that society. Culture also affects administrative practices; the same policies are implemented in different ways in different bureaucratic cultures. Within this framework, contrary to what is believed, there is a close relationship between science and culture. Scientific discoveries are a determining factor in the formation of material culture. Scientific change has important effects on culture and administrative culture beginning from means of material culture. For instance, the steam engine, which is an outcome of some series of technical inventions (tools related to scope, measurement, counter, graphics, etc.), has formed the technological power of the Industrial Revolution. This invention, which affects many areas from manufacturing technology to transportation and military technologies, also provided financial support for the production of new strategies (Carroll, 2009: 581-584).

The liberal understanding of the state draws attention to the negative conditions as a result of the power of state intervention rather than the fact that the state is a determined phenomenon. As stated in Rothbard (2004), the only course for man to survive and to attain wealth, is by using his mind and energy to engage in the production-and-exchange process. This can be done by finding natural resources, and then by transforming them to make them their individual property, and then by exchanging this property for the similarly obtained property of others. As such, the social path dictated by the

requirements of man's nature is the path of "property rights" and the "free market" path based on transfer or exchange of such rights. In this sense, the State provides a legal, orderly, systematic channel for the predation of private property; it assumes a role against the nature of man by rendering certain, secure, and a relatively "peaceful" lifeline to the parasitic caste in the society.

Nation-states are the main factors of the political sphere of modernity. Unlike existing integrations in traditional society, new cultural activities based on free individual will and rational interest oriented have created the unity of the nation. Within this framework, the modern state as a widespread administrative central structure act as a regulator in the market conditions, as an intervening force in the labor market and as a conflict resolver assuming services ensuring welfare.

Debates on the State before COVID-19

In the beginning of the COVID-19 pandemic, debates on the administrative structures of states emerged because of two important developments. These two developments are the globalization process and the dissolution of the Soviet Union. Feeding each other, these two developments, both lead the questioning of the literature of the dominant state and sparked the discussions about the future of the states. Globalization is a phenomenon shaped as a result of multidimensional social, economic and technological changes that mutually affect each other. The technological dimension of the globalization is related to the developments in communication and the use of new technologies on a global scale. In the center of globalization lies the rapid improvements in the communication sector and development of organizations in the last decade which can provide the exchange of information instantly at a price equal to the price of the local telephone call through the internet. Norms, ideologies, values, and institutions have been fragmented as a consequence of the communication revolution that made it possible to spread information around the world easily and cheaply (Kettl, 2000: 491). It has been asserted that the communication revolution, has served to spread of cultural homogenization and a consumption approach that can be canalized globally. On top of that, the globalization with these characteristics has brought about cultural exchange. Another development that accelerated the globalization process was the increasing importance of international organizations, multinational companies, and international financial institutions within world politics. These institutions also emerged as supranational authority centers. Global capital is not dependent on any nation, community, or place, nor is it loyal to them. In the past, unlike when money was allocated to a certain region and domestic affairs - commercial affairs, community values and commercial activities - global capital has loosened its ties with a certain region and has become more comfortable in the virtual world in computer banking (Farazmand, 1999: 513-514).

The globalization procedure as a process of global marketing that enables the free movement of goods, services, and capital in the international arena without encountering any national prohibitions and restrictions is an obvious contradiction against modern state construct. Remarks and policies such as limiting state power in controlling the markets, reducing the impact of the public sector, privatizing public institutions, even transferring public goods and services directly to the private sector and international organizations, and transmitting government power to transnational institutions and local units were brought forward as ideological discourses. Public authorities have been forced to eliminate barriers against international market integration in line with the criteria set by transnational organizations. Globalization refers not only to the global circulation of goods, services and capital, but also to the circulation of information, ideas and people (World Bank, 2000: 1). The phenomenon of globalization has created an environment in favor of private sector initiatives in the delivery of public services. This involved the national services provided by international financial institutions and partnerships on the one hand, and the transfer of local public services to the private sector on the other. The new Public Administration approach was shaped by the US under the Carter and Reagan administrations, and the Thatcher period in the UK. These practices were developed by UN and OECD experts and turned out to be a global administration approach in parallel with globalization. The New Public Administration concentrates on business administration techniques and methods rather than public administration. Under these circumstances, public services are limited by the market mechanism (Salskov-Iversen, Hansen & Bislev, 2000: 1).

Apart from the new public administration concept, "good governance" has emerged during 1990's not only as a political, legal and democratic issue but also as a concept lending policies toward Third World countries as a result of the need for administrative efficiency (Salskov-Iversen et al, 2000: 10-11). Within this period, a new hierarchical relationship has emerged, such as the transfer of policies shaped by the World Trade Organization, the World Bank, International Monetary Fund (IMF) and other international organizations into developing countries. However, international organizations are reluctant to take the national priorities of administration as a global principle into account. These organizations prefer nation-state authorities to act in line with the prerequisites determined by themselves. Stand-by agreements with the IMF serve as the basis for the hierarchical relationship. Nation-state authorities are trapped between the cross-pressures of international organizations on one hand and demands from the governed on the other (Farazmand, 1999: 513).

Although the dissolution process of the Soviet Union did not arise out of the globalization, it has both accelerated the process of globalization and paved the way for discussions around the new position of the states. We can assert that this process has four main flows. The first flow was formed around the approaches that were brought to the fore by American political scientists and highlighted the global priority and success of liberal democratic institutions. Fukuyama

(1992) declared that history has entered a final stage based on the domination of liberal state institutions as a result of a dialectical process. That being said, it would be crucial for the state structures to undergo a transformation on the basis of liberal political institutions in the new world order. Moreover, it was an obligation that this transition process was put into practice through a series of reforms and policies. The transition was submitted by global organizations to other countries as a reform process involving many political, legal, and economic topics and as an assignment. As a consequence of the way the neoliberal approach is interpreted by the new conservatism, the limited state has been put forward as an ideal to be reached in the new world order. An opposing view to the transition paradigm came from Huntington's (1987) clash of civilizations thesis, again from a member of the American academy. Just as Fukuyama, Huntington as well idealized liberal political institutions, yet he argued that there were significant cultural barriers to the transition to such an idea and structure of the state. Societies were acting according to the patterns of civilization to which they belonged, some of which allowed the development of liberal democratic institutions, while others prevented such a transition. Hence, the existing liberal institutions in his views were not turning out to be an ultimate global goal, but a value that should be protected from the other.

In the new era, the second flow regarding the qualification of the state was shaped by the approaches that prevail in the 1990s, which were mostly expressed by the Eurocentric thinkers and, unlike the first flow, spark attention to the insufficiency of existing liberal institutions. Pursuant to these approaches, liberal political institutions themselves have been posing a threat to the future of democracy. Liberal democracy has been ignoring the group identities with its individual-centered approach and was insufficient in solving the problems encompassing large communities. The existing representation structure was based on the majority, including western societies, curbing the reflection of the demands of new belongings and groups, which were numerically minorities, on the policies. Representative democracy was incompetent to produce democratic legitimacy and therefore was seen as a problem area that needed reform (Sitembölükbaşı, 2005: 140-141). The main problem areas for these approaches have been the concentration of the existing institutions on the interest-based demands, low participation rates in the elections and failure to ensure multiculturalism. They have also been underlying that the existing institutions could not comprise the internationalization brought by globalization. They also highlighted criticisms that today the general increase in the level of education of the society can no longer maintain the role of passive citizenship based on the vote-representative relationship alone (Elster, 1997).

Contrary to the antagonism that predicates struggle between adversaries in overcoming the problems experienced in liberal states, consolidating an understanding of agonistic democracy that recognizes the right to defend ideas of opposing views (Mouffe, 1996) or reconstructing democracy with

a deliberative approach that emphasizes the process of decision-making, not decision-making itself have been brought to the agenda as suggestions to overcome. These criticisms have opened up some limited institutional suggestions and practices for debate, such as limitations of the term for offices which held elections, citizen juries consolidating deliberative processes, free fields and civil unions.Evans & Boyle 1992; Lewis, 1994; Smith & Wales 2000). In terms of their Euro-Western centric tendencies, approaches that suggesting the reinterpretation of liberal democracy, accord with approaches highlighting liberal democracy. For instance, Habermas, (2016: 46-47) argued that forming the deliberative democracy is much more feasible in European societies because of the characteristics they have had.

The third flow is framed more as a reflection of the practices experienced in the post-Soviet era rather than the intellectual suggestions. At some point, It includes regional reactions to the consequences of globalization and transition policies. The transforming effect of the elections to be held in the countries experiencing this process is of utmost importance for the paradigm of the transition process. The perception that political elections in which the competition ground was provided, would be the driving force in the establishment of liberal democracy, was often advocated by those who put forward this thesis (Carothers, 2002). However, the fact that the results obtained in the elections held in the countries where these conditions were met in the 1990s could not provide the expected transformation, or the consolidation of the reverse processes have opened up the discussions about the future of democracy. In his analysis of the results of the Bosnian elections held in 1996, Fareed Zakaria (1997) suggested that the elections held in the post-Soviet era heightened a tendency towards illiberal democracy rather than liberal democracy in most of these countries. Having stated the illiberal tendency which can be characterized as the strengthening of the authoritarian politics that received some kind of public support, Zakaria shed light on the necessity to focus on constitutional limitations in such countries mentioning that the tendency became widespread in the Middle East, Africa and post-Soviet geography. The expectations pertaining to the future of liberalism were already problematic with the free elections held in these societies which went through traumatic processes. Nevertheless, the late awareness of the fact that the illiberal orientation is not specific to such countries is another problem encountered with. Assessment of Eastern European, Asian and African experiences and new concepts such as elective authoritarianism, hybrid regime, ambiguous democracies, elective democracies, patronal regime, neopatrimonialism (Alkan, 2012) have become prominent in describing the new system types. On one hand, these conceptualization attempts have deepened the mistakes of the transition paradigm approach, on the other hand, they paved the way for attempts to produce some new policies enabling external interventions to states or, on the contrary, to strengthen existing dictatorships. In this respect, an assessment of the concept of failed - weak state is noteworthy. As for Fukuyama (2012), the impediments faced during the process of transition to liberal democracies in non-western societies are due

to the fact that they fail to make necessary reforms because of the incapacity of the state structure in these countries.

After the cold war, actors who demanded the implementation of comprehensive and rapid reforms in many regions with a top-down approach initially neglected the weakening aspect of such a rapid change in the existing state capacity. Those who demanded these reforms later associated the crises in these countries with their lack of capacity. International intervention in certain regions with the excuse of lack of capacity and violations of human rights have dramatically undermined the trust in discourses and policies. Moreover, the transformation of the created concepts into generalizations used to define many different countries whether they experience it or not, and the use of the literature as a dominant analysis criterion through academics in the relevant countries, also obscured the correct understanding of the changes experienced.

However, as it is stated, Western-centered analyzes lag far behind to assess their own situation. Although some early comments reveal with an empirical analysis that illiberal orientation has increased in Western societies (Hansen & King, 2000: 396-403), the discussions were brought to the agenda for the Eastern European countries, which were previously taken under the umbrella of the "European Union (EU) with a more rapid process. Yet, it has started to be emphasized that similar trends in developed Western democracies have recently been observed. Expressing the concept of illiberal democracy as a fundamental problem in the current sense, Zakaria (2016) stated that illiberal change is also a problem for the US democracy in an article he wrote in the Washington Post. He further stated that in American democracy, institutions gradually lose their characteristics, turn into an instrument of interests, and that this process strengthens the expectations of leader-centered politics by shaking trust in institutions. In two separate articles published in the Journal of Democracy, Foa and Munck (2016; 2017) argued that on empirical basis democratic tendencies decreased among young people in western democracies and that the search for strong leadership generally became prominent. In general, voter bases of the populist and far-right parties in Europe tend to expand. These parties are in clear contrast with the international market principles developed in parallel with the globalization process and institutional rules and structures. Moreover, they articulate that the existing political institutions are separated from the voter preferences and that a radical change is of necessity in this field. They emphasize that the existing institutions are insufficient in solving social problems, and the main reason behind that is the policies of the existing political elites who are in close contact with global actors. Highlighting protectionist policies and arguing that immigration policies are closely related to the social problems of the citizens of the country, these parties predicate anti-alienism on intercultural incompatibility (Uzuncayır, 2017: 383). In Western democracies, processes involving conflict become prevalent. As we can list many examples such as the Brexit process, the Scottish referendum, the Catalan referendum initiative in Spain and the Northern Italy issue, debates regarding the legitimacy of the existing institutions have been on top of the agenda and will continue to be so.

Debates pertaining to the democracy and institutional structuring on the issue of states in the pre-COVID-19 process have been formed around the discussions about the superiority or inadequacy of liberal democratic institutions. The transformation of democratic reform into an instrument of new global conservative policies by the approaches emphasizing the superiority of liberal democratic institutions through detaching the liberal institutions from their foundations has dramatically undermined the trust in these discourses and policies. On the contrary, the second approach, which emphasizes the European cultural identity and the necessity of reforming liberal democracy, remains unwieldy in creating solutions to face the rapid process. That is why, it fails to provide a concrete response for other regions of the world that are facing serious problems of change. This divergence has solidified the belief in the insolubility of existing institutions on a global scale and set the stage for the consolidation of voter preferences pertaining to the protectionist policies as a reaction to the transboundary problems of globalization.

Another process, which can be considered as the fourth flow and overshadowed by these discussions, continues. The change seen in Latin America, the Far East, the Middle East and European countries which were relieved from the pressure of the Cold War on the state administrations, is the main reason for the difference of this process. These countries had administrative systems suppressing their socioeconomic dynamics, especially under the shaping force of the global balance of power. Latin American countries, Portugal, Turkey and South Korea etc. which have administrative systems shaped around different formulations in the shadow of military tutelage, military-backed personal authoritarian regimes like Egypt and Tunisia and lastly the traditional dictatorships are considered within this category. The globalization process and the dissolution of the eastern bloc gave rise to constitutional debates in these countries which were under military tutelage. Moreover, it paved the way for an institutional and political change in which political actors opposing tutelage have a significant role (Alkan, 2019). While in Latin American countries and in countries such as Portugal, Turkey and South Korea the struggle with the tutelage institutions and change was prevailing, this situation has triggered another change that shows itself with a bottom-up change during the Arab Spring aiming to overthrow dictatorial regimes. The change in these areas is quite challenging. These processes, which represent a bottom-up change, have not been supported by global actors besides their own internal problems. Especially Western countries have taken the stance towards the continuation of tutelage and traditional regimes, and have seen no harm in interfering with the processes directly. The change of tutelage and authoritarian regimes that have undermined the bottom-up political process through elections has been misinterpreted as a repercussion of the illiberal wave. Also, the reactions that emerged in these countries have always been interpreted within this framework. Despite all of the challenges, a good part of these countries has an experience of democracy, unlike post-Soviet countries. The renovation of the authoritarian regimes and the inadequacy of liberal institutions fail to enlighten the process in these countries. On the

contrary, these countries try to overcome the problems caused by the fact that they are ambiguous democracies (Diamond, 2002), in which elective processes are suppressed by constitutional oligarchic structures, and that politics has been redesigned through direct or indirect interventions from time to time. Although the unique dynamics of these countries are tried to be included within the dominant literature, the fight against the COVID-19 global pandemic also sets the stage for the prominence of this difference.

Threat of the COVID-19

Pandemic (global epidemic); is the outbreak of a disease that spread over a wide geographical area, more than one country or a continent. The reason why COVID-19 was declared as a pandemic by the World Health Organization is that it can be easily spread from person to person, by posing a threat to all countries. (TÜBA, 2020: 19). Such large-scale epidemics have led to multidimensional changes in terms of economy, society, and administration in world history. Hence, it can be stated that COVID-19 will potentially have intellectual and administrative changes and some potential effects on people's lifestyles and established economic relations. Although it is still the beginning of the process, it is necessary to outline the signs that will help us in determining the directions of potential change.

"Tedros Adhanom Ghebreyesus, Director-General of World Health Organization (WHO)" states that "All countries must strike a fine balance between protecting health, minimizing economic and social disruption, and respecting human rights." against the effects of the pandemic. Main threats posed by COVID-19 listed by the organization are as follows: escalation of racist and discriminatory policies, increase in violence against women and children and along with these groups limitation of the access of older, disabled and homeless people to education and public services, the use of restrictions imposed to protect the health as an instrument to suppress rights and freedoms, having difficulty in accessing the necessary infrastructure and equipment and the lack of international cooperation (WHO, 2020).

COVID -19 poses a recession threat that can simultaneously be accompanied with a supply problem that will affect the whole world (East Asia, the US and Germany), production declines in industries based on imported inputs and overall shrinking demand. With the introduction of digital tools and the transition to flexible work practices, its compensation will be very limited compared to the previous period (Baldwin & Mauro, 2020: 4). More importantly, in every sector, there is a need for people who actually work. Intrinsically, we are faced with an employment problem as a whole not just an unemployment problem. In some needed areas, it is observed that employees prefer to leave their jobs due to risk perception and obligation to take care of their elders and children. The measures taken and the preventive policies implemented lead difficulties in the existing ways of doing business. This

could have negative consequences such as the escalation of xenophobia and populism in countries, increase of internal conflicts, the emergence of new disputes between countries (seizure of healthcare equipment, the sudden closure of borders, widespread deportation practices, etc.).

The first societal repercussions of the pandemic are fear and the loss of confidence within the society. People get estranged from the lifestyles they are used to, worry about the lives of themselves and their relatives, face the danger of losing their assets economically, and even feel that they are in a deadly competition with each other. The spread of such a perception makes it difficult for the administrative authorities to deal with the pandemic, and the authorities have difficulty in managing the process with the methods they are used to. In this sense, the need for change in many areas such as the effective delivery of public services in line with the new circumstances, keeping communication channels that give people confidence open, and developing the cooperation opportunities required by the situation at the national and global levels have emerged. The most important aspect of dealing with outbreaks is the presence of a strong health infrastructure. The pandemic primarily poses threats to the health infrastructure of the countries. Preparations in the health sector such as existing hospital capacity, laboratories, the introduction of new techniques to struggle with the pandemic, the development of treatment methods, and establishing interactive relationships at both local and global levels are of utmost necessity. The measures taken to struggle with the pandemic will directly affect many sectors. Transportation, tourism and services are among the sectors that will be affected primarily. At all levels, education and training services are disrupted, and the necessity of compensating conventional methods with distance education methods raises capacity and transformation problems in this sector. In the absence of digital channels and educational materials developed by countries, the adaptation of the education sector to the change becomes much more difficult within a short period of time. The pandemic process entails an intellectual and technological change in providing sustainable education with the support of digital opportunities.

Despite the measures, maintaining agricultural production and ensuring food safety have a priority in the process. The development of new techniques in this field and strengthening planning and supervision functions requires re-planning of agricultural production in a way that will not hinder production in the food sector, keeping supply chains open during the pandemic, preventing the increase in product prices from limiting access to food. The financial sector is affected by the process as well. Policies such as the prominence of digital banking in the process, conducting financial services from home through these channels, making some legal changes on digital money, providing monetary incentives and support to entrepreneurs and employees at all levels including the sectors that have been considered developed until today, and extending credit facilities gain importance.

The COVID-19 threat closely affects groups that make their living with day labor. The situation has more negative consequences for informal workers. Problems including the production, marketing and sales and faced by small and medium-sized enterprises and small retailers due to the measures may result in the loss of their jobs and then the closure of the enterprises. For this reason, beyond being a mere health problem, the struggle with COVID-19 brings forth a series of economic and social problems. As such, it is required for the state to resort to social aid and incentive policies. States, to put it more precisely, the executive authority has strengthened its own position in cases such as the effective provision of public services, especially in the health sector to prevent the pandemic, in restricting and auditing the mobility and in solving the supply and production problems caused by the measures. Nevertheless, implementing social assistance and incentive policies in the economy has increased its responsibilities. (Blofield, Hoffmann & Llanos, 2020: 1-2).

The aforementioned issues entail the public to take an effective role in solving the problems experienced. States become the primary actors in the management of the process ranging from the delivery of services, their coordination, auditing and developing systems of incentives, to the promotion of compulsory infrastructure and research services that are able to cope with the pandemic, but not profitable.

In the fight against the global pandemic, there is a potential for global cooperation to become stronger and even to be ready for a general change through international organizations and regional integrations. However, developments confirming this have not taken place in the process we have been through. During the pandemic, cooperation, and solidarity at the European level and under the coordination of the EU could not be formed. (Aydın, 2020: 43). Countries affected negatively because of the pandemic were able to provide support more of from countries that are not part of the EU. The pandemic entails co-operation on a global scale, yet there are problems with its establishment via transnational formations. This brings us to a point where cooperation at the global level is achieved through cooperation between states. Şükrü Hanioğlu (2020: 24-25), underlines that after COVID-19 global consequences such as the rise of authoritarianism and populism, questioning multiculturalism, the increase of the tendency towards building walls on the borders, the spread of isolation, questioning raison d'être of the European Union and international organizations may emerge. As for him, the globalist idealism will not be an alternative to these threats, but instead, the approach of the states to their global roles will become important. On one hand, states are forced to change their existing structures, and on the other hand, they tend to make collaborations that they consider useful for them on an international scale. We can suggest that this situation has an aspect that transcends existing discourses, authoritarian or democratic systems. The repercussions of solidarity initiatives we are unfamiliar with (eg Italy-Russia or China, Italy, the United Kingdom - Turkey) may be a preview of this situation.

Restructuring the State in the post COVID-19 Process

The issues discussed so far show that the two elements which have a close interaction regarding the direction of state restructuring after COVID-19 will be decisive. The first of one is the state capacity, which determines the degree of the state to cope with crises. The second one is the functioning of democratic institutions, within the framework of ensuring democratic accountability limiting extreme use of the state capacity in emergency situations. The different repercussions of these two elements in themselves should be assessed primarily and then the models that may arise as a result of mutual interaction should be emphasized.

The Dimension of State Capacity

State capacity includes the institutional organization required for the state to perform public services, to create personnel, supply channels and to have technological and other material elements that enable all these elements to work in a coordinated manner. In this way, the state can act and produce solutions in line with the problems encountered. The effectiveness of state capacity also entails manifesting this capacity to the administrators impartially (Cronert, 2020: 4-5). The strong state capacity does not merely depend on the large organizational structure of the state, the great financial means or the size of the number of staff. These features can sometimes lead to institutional clumsiness in dealing with reverse crises. Above all, the institutional capacity of the state needs to be structured in an optimal, functional, and collaborative manner. In this sense, the settlement of the institutional structure with the necessary flexibility in dealing with crises becomes crucial.

The structuring of the state capacity is also closely related to the ability to develop policy options. Crises can force administrative units accustomed to working with limited policies, and that they can become an obstacle to the resolution of institutional inertia problems. Overcoming this problem is closely hinged upon both openness to inter-institutional cooperation and flexible policy options.

The effectiveness of state capacity is also closely related to ensuring that different administrative institutions with vital priorities can work together on the same issues. The distinctions between different administrative units can range from what issues should be addressed in determining the policy strategy, to discussions on the inaccuracy or accuracy of the policy itself. Hence, ensuring consistency between institutions is also an important aspect in terms of effectiveness and reliability. The analyzes show that the following issues have gained significance in terms of state capacity:

- *Adequacy/inadequacy of the institutional, organizational, financial and personnel capacity of the state,*
- *Applicability/rigidity of flexible organizational models,*

- *Tendency/weakness to develop different policy options,*
- *The degree to* which consistency between state institutions can be achieved.

The Dimension of Democracy

Democratic accountability is above all a political issue and involves the public's right to determine and inspect authorities through political channels. Within this framework, general voting rights, periodic elections, and legal arrangements that allow free and competitive elections become prominent. These features involve more of the institutional aspects of the subject. In this context, regulations and practices pertaining to the way political institutions are mainly regulated at the constitutional level, the law on political parties, the electoral system, the realm of association and freedom of expression can be considered as the main issues. However, accountability has an aspect of political culture as well. Accordingly, the fact that political actors act responsibly to social demands on the basis of rights and freedoms is an element that complements the institutional structure. While its responsive mode of action provides a better functioning of accountability, it is also of vital value for actors as it will determine the future election success of political actors.

A political structuring based on democratic accountability requires to open political communication channels of the state, to access correct information in the environment, to make rapid decisions by evaluating the information correctly, and to provide correct feedback from the results of the decisions. In this way, the state can deepen its memory capacity, strengthen its ability to make decisions rapidly in a future crisis, respond quickly to crises and achieve this in a democratic cultural platform.

The degree of awareness of political actors and the direction of the awareness is another variable that may be decisive at this point. The financial circumstances caused by the crisis may not always overlap with the demand of the voters. Even choices and obligations can clearly contradict with each other. Hence, the situation necessarily entails the leadership abilities of political actors and the capability to resolve such conflicts in times of crisis in a way to assure all segments of the society. Leadership is essential in preventing the transformation of state capacity into an authoritarian technocracy and a pressure tool that narrows the area of rights and freedoms, as well as it is crucial in balancing institutional capacity and accountability, and in directing conflicting demands to general attitudes.

Four distinctions become prominent in terms of democratic accountability:

- *The design of political institutions in the country,*
- *The openness of political communication channels,*
- *The attitudes of political actors,*
- *The role of political leadership.*

The Different Interaction Models

The relationship between democratic accountability and state capacity shows us that four different interaction models can be established. The first model corresponds to a situation in which the state capacity is high and processes function well in a democratic sense. A good institutional infrastructure exists in terms of equipment, financial opportunities and personnel in the conduct of democracy and public services functioning in such a country. The democratic accountability of political actors limits their actions, and the desire to succeed in the next elections directs them to focus on policies that will use the capacity most optimally. However, as it is mentioned above, the existence of positive circumstances in both respects does not always mean that the state will follow an ideal path. Above all, the attitudes and leadership style of political actors in general are of vital importance in the interaction between the political and the institutional dimension. In the US, Trump's response to the COVID-19 threat, his failure to develop cooperation with federal government officials and even his collide with them from time to time, escalating tension with ministers and other public organization administrators have significantly curtailed capacity utilization in the country and played a determinant role in the spread of the pandemic (Yamey & Gonsalves, 2020). The US acted in a market-oriented manner towards the social content of the crisis, and above all, adopted a different approach towards evaluating the crisis in the intellectual plan. Along with the emergence of the disagreements between the officials assigned to critical positions and the President in terms of the fight against the pandemic, the basis for institutional consistency and administrative integrity has not been achieved as well. At the beginning of the pandemic, the UK officially announced that the herd immunity strategy would be followed. However, the spread rate of the virus and the extent of losses made it inevitable to abandon this policy. Although the UK has abandoned the outcomes of not being able to place the problem on a correct intellectual ground and of wrong decisions with a policy change, the cost of these strategies was severe. In some other European countries such as Sweden and the Netherlands with high rates of mortality, the failure to establish the relationship between policymaking and the use of capacity have yielded negative results.

The second interaction model is observed in countries where the state capacity is high, but unlike the first model, an authoritarian system prevails instead of democratic institutions. In such a model, the perception of the crisis by political authorities is the determinant factor in the fight against the pandemic. If the crisis is perceived as a threat by the current authorities, the administrative elites can utilize the state capacity at the highest level, but in this case, the realm of rights and freedoms is dramatically suppressed. Since there is no clarity about the size of the losses and the methods applied, speculative discussions come to the fore in the process. In this model, the struggle against the pandemic can be successful. However, there are doubts regarding the methods by which this success is achieved. As success emerges within the framework of the authoritarian system's priorities, the demands and freedoms of those who are governed can be affected negatively. On the contrary, if

the administrative elite's perception of the crisis is low, then society can be vulnerable to the dangers caused by the pandemic. In other words, society may face two negative consequences such as authoritarian pressure or openness to the dangers posed by the pandemic in both cases. The approach of China, the first epicenter of the pandemic, might be set as an example of the first situation. China has well understood the threat posed by the pandemic and used its capacity of health and security effectively in the process. Leaving the speculative discussions aside, China's success in fighting against the pandemic receives wide acceptance. However, the way authorities use their powers, the rigid measures of the police to prevent the spread of the virus, and the deaths caused by the fact that some people affected by the disease could not access health institutions due to strict practices cause hesitation in terms of the humane consequences of this success. A reverse process takes place in Russia. Despite the early case reports, Russia adopted a tacit attitude in the first phase of the outbreak, possibly prioritizing the monitoring strategy instead of active intervention, however, the emergence of negative consequences led Russia to intervene in the process by taking strict measures. However, the country faced with the problem of a sharp increase in the number of cases (Epifanova, 2020: 1-3). The lack of democratic openness and accountability in both cases leaves the society open to the decisions of the authorities directly in crises, and this can yield negative consequences in different ways.

The third interaction model corresponds to a relationship in which democratic institutions have developed yet state capacity remains insufficient. The aforesaid lack of capacity leaves political authorities in a tight spot. Failure put governments in a difficult position against the opposition in the first place. Moreover, a decrease in trust to leaders and the system is likely to arise within society. The effects of the similar processes on populist politics, which have recently escalated in some Western countries, are still uncertain. The biggest dilemma of populist politics is that it has difficulties in producing an institutional alternative although it has developed a strong critical discourse regarding the existing institutions and practices. It is likely that such kind of policy will have more difficulties against the current insufficiency of capacity. In some countries, leaders try to overcome institutional inadequacy by highlighting herd immunity and using the current popular support in this direction. Lack of capacity also limits leaders to assign technocrats for the struggle in such countries, and the fight against the pandemic is carried directly into the political sphere. The outcomes of the COVID-19 process in some established European democracies correspond to this model. Countries such as Italy, Spain and Belgium have emerged as examples in which lack of capacity has locked the system with the effect of wrong political decisions. Some of these countries appear with high mortality rates compared to their populations and some of them with insufficient health systems despite all precautions taken. In examples such as Brazil, the country administration tries to curb the negative consequences resulting from the lack of capacity by leaning on popular support (Blofield et al. 2020: 4).

In the last interaction model, both the system's lack of democratic institutions and the inadequacy of state capacity coexist. Since accountability is not possible in such an interaction, the realm of the authorities is expanding, whereas the fight against threats is limited due to the inadequate state capacity. The lack of transparency hampers access to information both for the public and the international system. That being said, it is likely that limited data will be accessed in the countries that are expected to be severely affected by the pandemic. The president of the Republic of Belarus Lukashenko, stated that they had decided not to take any measures at the beginning of the pandemic. On the other hand, Iran did not quarantine the city of Kum where the virus was first seen, and the numbers reported by countries such as Iraq, Syria, and Yemen remained controversial. It is noteworthy that North Korea has not reported any cases so far (Sang-Hun, 2020).

Figure 1. Democracy - state capacity and leadership styles.

Democratic Dimension / State Capacity	Leadership
	Threat perception, openness, ability to provide inter-institutional cooperation.
	Threat perception, willingness to use institutional capacity.
	The problem of making decisions and using institutional capacity, the tendency towards populist policies.
	Turning inwards, oppressive orientation.

The process of COVID-19 global pandemic denotes that democratic institutions play a more stimulating role for political actors in reacting rapidly, whereas the power of state capacity and the attitude of country leaders towards the process are equally effective on the success of the struggle against the pandemic. In democracies where state capacity is not strong, it is difficult to manage the process in general. Authoritarian regimes without democratic institutions display a functioning process in which political leaders and administrative staff are decisive in the process. In this case, authorities may be reluctant to mobilize their existing capacities to combat the pandemic or they can use state capacity oppressively. In authoritarian regimes where the state capacity is weak, limited openness or total closure gains strength.

Conclusion

The global pandemic brought forward the threat of the loss of achievements of human beings to the agenda and created a process in which states become prominent in the struggle rather than global organizations. States play a determinant role as key actors in both the national level and global cooperation. However, the state consolidated is not the state in general but rather some states. The characteristics of states that are relatively successful in combating the pandemic also provide some clues for the transformation of states in the new normal after COVID-19.

Above all, states have encountered with the responsibility of effectively executing many public services, especially the health services necessitated by the global epidemic. This necessity encompasses a versatile field of action such as using the existing administrative capacity immediately and efficiently, making restrictive decisions, and introducing new policies in social life and the economy. A second dimension of the issue is formed around the question of which method and policies will be implemented on the basis of legitimacy. In this process, authorities can adopt a transparent approach that prioritizes accountability and the protection of democratic institutions and achievements. Or, conversely, they may suspend their obligations, pleading extraordinary circumstances. Whether these countries become successful or not, It is observed that the combat strategies of authoritarian regimes for the COVID-19 pandemic make the society open for the decisions of the authorities. Instead, the necessity for states to strike a balance between the effective use of their capacities and democratic processes prevails.

In the near future, COVID-19 global pandemic will lead to the prominence of states which can practice an understanding of leadership that can strike a balance between democratic institutions and state capacity, be sensitive to democratic legitimacy and accountability, direct state capacity on the basis of flexible organization and institutional cooperation and lastly keep communication channels open to society in a reliable way. The experience of countries such as Turkey, South Korea, Argentina, Germany and Japan which are successful in controlling this pandemic is a sign of this change.

References

Addressing Human Rights as Key to the COVID-19 Response. (2020). April 21, WHO, WHO/2019-nCoV/SRH/Rights/2020.1. (11.05.2020)

Alkan, H. (2012). Türk cumhuriyetlerinde siyasal kurumsallaşma süreci: geçen yirmi yılın bir bilançosu. *Bilig-Journal of Social Sciences of the Turkish World, 61*(12), 1-30.

Alkan, H. (2019). *Geleceğin Türkiyesinde Yönetim*. İlke Yayıncılık, İstanbul.

Anderson, B. (2007). *Hayali Cemaatler*, Translated by İskender Savaşır. Metis Yayınları, İstanbul.

Aydın, M. (2020). COVID -19 ve uluslararası düzen. *COVID-19 Sonrası Küresel Sistem: Eski Sorunlar, Yeni Trendler*, (ss.41-44), Türkiye Cumhuriyeti Dışişleri Bakanlığı Stratejik Araştırmalar Merkezi, Ankara.

Baldwin, R. & Mauro, B. W. (Ed.) (2020). *Economics in the Time of COVID-19*. CEPR Press, London.

Barr N. (2004). *The Economics of The Welfare State*. Oxford University Press, Oxford.

Beyme, K. v. (2006). Political institutions—old and new. *Political Institutions*, (pp. 743-758), Ed. R. A. W. Rhodes, S. A. Bınder And B. A. Rockman, Oxford University Press, Norfolk.

Blofield, M., Hoffmann, B. & Llanos, M. (2020). *Assessing the Political and Social Impact of The COVID-19 Crisis in Latin America*. GIGA Focus, Hamburg.

Burns, E. M. (1984). Çağdaş *Siyasal Düşünceler 1850-1950*, Translated by A. Şenel, Birey ve Toplum, Ankara.

Bulgan, B. G. (2017). *Georg Jellinek'in Hak ve Devlet Kuramı*. On İki Levha Yayınları, İstanbul.

Carothers, T. (2002). The end of the transition paradigm. *Journal of Democracy, 13*(1), 5-21.

Carroll, P. (2009). Articulating theories of states and state formations. *Journal of Historical Sociology* 22(4), 553-603.

Cronert, Axel (2020), "Democracy, State Capacity, and COVID-19 Related School Closures", Preprint . April, DOI: 10.33774/apsa-2020-jf671-v3, (PP.1-26). https://www.researchgate.net/publication/340265835, (10.05.2020)

Diamond, L. (2002). Elections without democracy thinking about hybrid regimes. *Journal of Democracy*, 13 (2), 21-35.

Dunleavy, P. & O'leary, B. (1988). *Theories of the State the Politics of Liberal Democracy*, Macmillan, London.

Elster, J. (1997). The market and the forum: Three varieties of political theory. *Deliberative Democracy*, James Bohman and William Rehg (Eds.), (ss. 3-34). The MIT Press, Cambridge,

Epifanova, A. (2020). *Putin's Societal Distancing*, The German Council on Foreign Relations, (DGAP), Berlin.

Eroğul, C. (2017). *Devlet Nedir*, Yordam Kitap, İstanbul.

Evans, S. M. & Boyte, H. C. (1992). *Free Spaces*, University of Chicago Press, New York.

Farazmand, A. (1999). Globalization and public administration. *Public Administration Review, 59*(6), 509-522.

Foa, R. S. & Mounk, Y. (2016). The democratic disconnect. *Journal of Democracy, 27*(3), 5-17.

Foa, R. S. & Mounk Y. (2017). The Signs of deconsolidation. *Journal of Democracy, 28*(1), 5-15.

Fukuyama, F. (1992). *The End of History and Last Man*, Free Press, New York.

Fukuyama, F. (2012). *Ulus* İnşası, Translated by H. Kaya. Profil Yayıncılık, İstanbul.

Greenaway, D. & Nelson, D. (2008). The politics of (anti-) globalization: What do we learn from simple models. *Conference on Domestic Preferences and Foreign Economic Policy*, Princeton University, 18-19 April, Princeton.

Habermas, J. (2016). *Bölünmüş Batı*, Translated by Dilman Muradoğlu. Yapı Kredi Yayınları, İstanbul.

Hanioğlu, Ş. (2020). COVID-19 sonrası küresel düzen: **İki** seçenek. *Covid-19 Sonrası Küresel Sistem: Eski Sorunlar, Yeni Trendler*, (pp. 24-28), Türkiye Cumhuriyeti Dışişleri Bakanlığı Stratejik Araştırmalar Merkezi, Ankara.

Hansen, R. & Desmond, K. (2000). Illiberalism and the new politics of asylum: Liberalism's dark side. *The Political Quarterly*, 1(4), 396-403.

Huntington, S. P. (1987). The goals of development. Myron Weiner ve Samuel P. Huntignton (Eds.), *Understanding Political Development*, (pp. 3-32), Little, Brown, Boston.

Kettl, D. F. (2000). The transformation of governance: globalization, devolution, and the role of government. *Public Administration Review, 60*(6), 488-497.

Lewis, R. S (1994). Citizen Leagues: Free Spaces of Deliberative Democracy, *National Civic Review, 83*(4), 469-478.

Moore, T. (2010). The paradox of the political: Carl Schmitt's autonomous account of politics. *The European Legacy, 15*(6), 721-734.

Mouffe, C. (1996). Democracy, power, and the 'Political'. *Democracy and Difference: Contesting the Boundaries of the Political*, Seyla Benhabib (Ed.), Princeton University Press, New Jersey.

Oppenheimer, F. (2005), Devlet, Translated by Alâeddin Şenel-Yavuz Sabuncu, Ankara, Phoenix Yayınevi.

Poulantzas, N. (1976). *The Crisis of the Dictatorships*, Humanities Press, Norfolk.

Rothbard, M. N. (2004). Devletin anatomisi. Çev. M. Erdoğan, *Liberal Düşünce, 36*(Güz), 267-284.

Salskov-Iversen, D., Hansen, H. K., Bislev, S. (2000). Governmentality, globalization, and local practice: transformations of a hegemonic discourse. *Social Transformation & Humane Governance*, *25*(2), 183-213.

Sang-Hun, C. (2020). North Korea Claims No Coronavirus Cases. Can It Be Trusted?, The New York Times, 31 March 2020, https://www.nytimes.com/2020/03/31/world/asia/north-korea-coronavirus.html (18.05.2020)

Sitembölükbaşı, Ş. (2005). Liberal demokrasinin çıkmazlarına çözüm olarak müzakereci demokrasi. *Akdeniz İ.İ.B.F. Dergisi* (10), 139-162.

Smith, G. & Corinne W. (2000). Citizens juries and deliberative democracy. *Political Studies*, 48, 51–65.

Şeker, M., Özer, A., Tosun, Z., Korkut, C., Doğrul, M. (Ed.) (2020). *COVID-19 Pandemi Değerlendirme Raporu*, TÜBA, Ankara.

Uzunçayır, C. (2017). Batı Avrupa'da aşırı sağ partiler neden yükseliyor?. *Türk & İslam Dünyası Sosyal Araştırmalar Dergisi, 4*(15). 364-401.

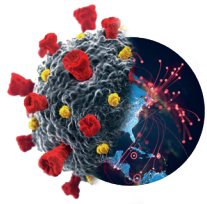
Weber, M. (2006). *Meslek Olarak Siyaset*, Translated by Afşar Timuçin - Mehmet Sert, Chivi Yazıları, İstanbul.

World Bank, (2000). *Poverty in an Age of Globalization*, Washington D.C.

Yamey, G. & Gonsalves, G. (2020). Donald Trump: a political determinant of COVID-19. BMJ, https://www.bmj.com/content/bmj/369/bmj.m1643.full.pdf (18.05.2020)

Zakaria, F. (1997). The rise of illiberal democracy. *Foreign* Affairs, 76(6), 22-43.

Zakaria, F. America's democracy has become illiberal. *The Washington Post*, 29 December 2016.



Post-Corona World: The Effects of COVID-19 on Economic, Social and Academic Life

Mustafa Acar

Prof. Mustafa Acar

Graduated from METU, Department of Economics (1986), Prof. Acar worked for TUIK and Isbank (1986-1993) before he decided to do academic career. Received masters (1996) and PhD degrees (2000) from Purdue University, USA. Became associate professor (2004) and full professor (2009) in the area of economic development and international economics. Worked at Kirikkale (2000-2011) and Aksaray University (2011-2015). Served as department chair, dean and rector during his work at these universities. He has been working for Konya Necmettin Erbakan University, Department of Economics since 2015. Being TUBA principal member, he has contributed at various levels to such institutions as TUBA, Tubitak, Ulakbim, and GTAP Center, Purdue University. Areas of interest include general equilibrium analysis, regional economic integrations, agriculture and agricultural policy analysis, EU and Turkey-EU relations, economic freedoms and free market economy. He has several papers presented at national and international scientific conferences, articles published in national and international journals, over 50 contributions to edited books, 33 books 14 of which are translations. Among his books published are Dictionary of Social Sciences (w O. Demir), Universal Laws of Economics, and Current Economic Debates. His translations include books written by prominent figures such as Adam Smith, Karl R. Popper, Murray Rothbard, Mark Skousen, Russell Roberts, and Milton Friedman.

Post-Corona World: The Effects of COVID-19 on Economic, Social and Academic Life[1]

Mustafa Acar
Necmettin Erbakan University
acar70@gmail.com

Abstract
No doubt that the year 2020 is likely to be one of the turning points in the twenty-first century as well as in the world history. A new type of coronavirus called COVID-19 has erupted in the last days of 2019 in Wuhan, China. The virus rapidly spread throughout the world, hence what started as epidemic in the beginning soon turned into a pandemic. Millions of people became infected and hundreds of thousands of them have died because of the virus, which seems to bring certain unavoidable changes in our lives. This study investigates some of the possible changes in economic, social, and academic life in the aftermath of the COVID-19 pandemic.

Keyword
COVID-19, coronavirus, post-corona world, economic and social impact of corona, effects on academic life.

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The world has been going through a pandemic called *coronavirus* for the last 9 months erupted in China at the end of 2019. The virus coded as COVID-19 (Corona Virus Disease-2019) by the World Health Organization has been seen first in Wuhan, China in December 2019 and then spread all over the world within a few months starting from Asia, followed by Europe, America, Africa and Australia. As of today (12 September 2020) number of cases exceeded 28.7 million, of which 7.2 million are still actively infected. Number of deaths at global level exceeded 920 thousand (3.2%) and nearly 20.6 million recovered.

Governments all over the world have taken a series of political, economic and security measures to prevent the virus from getting spread in order to keep the number of cases and deaths at acceptable levels. Among these measures are curfew (i.e. nobody is allowed to go out), shutting down business offices and shopping centers, banning internal and international flights, restrictions on internal travelling, permit requirements for entering and exiting the cities, imposing mandatory leave on employees in many institutions and firms, switching to part-time work, suspending education for a while and introducing distance learning over the internet afterwards etc. These were unexpected, unfamiliar, and atypical measures highly restricting the mobility of individuals at all levels.

There are several conspiracy theories flying around on how and by whom the coronavirus has been produced. We will discuss this issue in the next section in a little detail.

No doubt the coronavirus pandemic will not only have some far reaching effects but also lead to some social, economic and political changes in our lives arising from both the likely effects of the measures that have been taken so far and the predictions that invention of a cure or vaccine may take a long time.

In this regard, this pandemic created the most serious crisis since the World War II. In a sense, the world is almost shifted into a global emergency mode. Different political scientists have already stated that powers that be tried, many times, to put people into an emergency mode. It is exemplified by terrorism. This virus has the power to make things go from bad to worst and it is already happening. It has become the cause of many deaths, distress and suffering throughout the world (Khan, 2020). Compared to other diseases and their burdens, the COVID-19 pandemic will likely to bring about more distress (Chakraborty and Maity, 2020: 2).

In light of the above, this article discusses the impact coronavirus pandemic has created and is likely to create soon in social, economic and academic life. The next section provides information on the latest statistics available on the size of the pandemic and comments on the speculations on the source of the virus. Section 3 discusses the likely effects of the pandemic and the things that will or will not change in social, economic, and academic life, respectively.

The Fight Against Coronavirus Pandemic and The Conspiracy Theories

COVID-19 has been detected for the first time in December 2019 in the Hubei province, Wuhan, China. It took some time to realize that this was a new type of coronavirus, different from the earlier versions. Even though strict measures have been taken from then on, it was not possible to prevent it from spreading all over the world rapidly.[2] China has been criticized for not letting the world know timely about the developments it has experienced related with the virus and for being late in taking measures. But Chinese authorities have rejected these criticisms, saying that in the beginning they, as everybody else, did not know that this was a new virus; that they took all the necessary measures as soon as it was realized that this was a dangerous new type of virus, including even strictly isolating a whole city from the world to the extent that some criticisms of violating human rights arose (NEÜ TIGA, 2020).

In light of the above, the size of the pandemic as of today is given below first, and then the conspiracy theories on the source and the eruption of the virus is critically discussed. Table 1 summarizes the COVID-19 statistics by selected countries as of 12 September 2020.

[2] See Seker et al. (2020) for a detailed report on COVID-19's eruption, the relevant terminology on COVID-19, reporting of some of the world science academies and some projects being conducted in this area.

Table 1. COVID-19 Pandemic Statistics by Selected Countries (12 September 2020)

Countries	Total cases	Deaths	Recoveries
World	28 724 721	920 841 (3.2%)	20 643 479 (71.9%)
USA	6 639 344	197 472 (3.0%)	3 918 810 (59.0%)
India	4 688 470	77 768 (1.6%)	3 648 534 (77.8%)
Brazil	4 283 978	130 474 (3.0%)	3 530 655 (82.4%)
Russia	1 057 362	18 484 (1.7%)	873 535 (82.6%)
Iran	399 940	23 029 (5.8%)	344 516 (86.1%)
United Kingdom	361 677	41 614 (11.5%)	780 (0.2%)
Italy	284 796	35 597 (12.5%)	212 432 (74.6%)
Turkey	288 126	6 951 (2.4%)	256 524 (89.0%)
Germany	259 825	9 423 (3.6%)	234 850 (90.4%)
France	363 350	30 893 (8.5%)	89 059 (24.5%)
China	85 174	4 634 (5.4%)	80 386 (94.4%)

Source: *covidvisualiser.com (30.07.2020)*

The most updated counts are available from this address for almost all countries. Figures in parenthesis are as percent of the total cases.

As can be seen from Table 1, as of 12 Sep. 2020, total COVID-19 cases in the world has exceeded 28.7 million, number of deaths reached 920.8 thousand, and nearly 20.7 million have recovered. Overall death rate has been estimated to be 3.2% while the rate of recovery is 71.9%. The United States is by far on top of the list both in terms of cases and the number of deaths followed by –in terms of cases- India, Brazil, Russia, Iran, and United Kingdom. In terms of death toll the US is followed by Brazil, India, UK, Italy, and France. Germany is the best performer in Europe both in terms of the lowest number of deaths and total cases followed by UK (cases) and France (deaths). Having 288 126 total cases so far, Turkey is in the lower ranks in the table, while China where the virus was seen first comes in the lowest rank in terms of total cases. The death toll is lowest in China, followed by Turkey, Germany, and Russia.

As percent of total cases, the death rate is highest in Italy (12.5%), United Kingdom (11.5%), France (8.5%) and Iran (5.8%). Some pessimistic comments have been made concerning the future of the European Union upon the bad performance of the EU member states except for Germany in this process. "Terrifying number of deaths in Italy, Spain and United Kingdom no doubt has deeply shaken Europe when the coronavirus pandemic that ravaged the world reached Europe. The image of "strong and prosperous Europe" has weakened badly and the spirit of unity and solidarity within the EU has become questionable" (Al, 2020).

On the other hand, the death rate seems lowest in India (1.6%), Russia (1.7%), and Turkey (2.4%). Finally, China seems to be the most successful country with regard to recovery rates with a recovery rate of 94.4%, followed by Germany (90.4%), Turkey (89.0%), and Iran (86.1%). Turkey's efforts to help other

countries in terms of medical provisions to be used when fighting against coronavirus as well as her higher performance in terms of lower number of cases and deaths were appreciated at both national and international levels.

As mentioned earlier, there have been a number of conspiracy theories as to how COVID-19 erupted, by whom it was invented or implanted, and for what purpose it was produced in the press and the social media. In principle, almost all conspiracy theories suffer from being exaggerated confabulations far from being convincing, and lacking any sound evidence (Acar, 2020). Regarding COVID-19, the first conspiracy theory has been floated by Americans that this virus is inherently from China and it is a man-made biological weapon that is made to shift the power dynamics of the world. On the contrary, another conspiracy theory is that the virus is made in the laboratories of the US and was spread in China by US soldiers. The purpose of this virus was to just destabilize the most strongly emerging economy of the world (Khan, 2020).

Another conspiracy theory asserts that through coronavirus some dark forces took action to put into practice the Nazis' unfinished dream to sterilize people. According to this theory the coronavirus in fact a fascist plan, which targets to highly reduce the world population. The least bloody and tragic way of doing this is subversion of the family and sterilization (Internethaber, 2020). Along these lines, Dilipak states that "since the beginning, the corona has already been said to be a synthetic microbe. It is also obvious by whom and why it is produced. The corona is produced by the same mind which produced LGBT, CEDAW, and Istanbul Convention.[3]" According to Dilipak, corona is just a tool; the real danger is attached to the vaccine in regards to corona, which is produced by some deep forces who try to spread out an immoral life. The real killing strike will come with the vaccine, which will be offered as a cure to death, whereby people are going to be made consent to sterilization in order to avoid death (Milli Gazete, 2020).

Another fantastic claim is that the new coronavirus pandemic is in fact a scientific, social, climatic or digital experiment. According to this conspiracy theory the pandemic which was spread from China but publicized through a simulation conducted in the US will stop in May (quoted from I. Incal by Arabacı, 2020). (Note that its prophecy has already been proven wrong) Similarly, according to strategist A. Ciftci who claim that the coronavirus is a "social pioneer experiment" designed to integrate us with the digital world, "there is a serious panic and fear in the world due to coronavirus. The world is in transition to a Blockchain-based digital society. The habits and behaviors of people are changing. People are forced to stay home, hesitate to shake hands, some of them even clink their feet for greeting. Use of money is disappearing. That is, we can say that someone is redesigning the world" (Cevik, 2020). Still another conspiracy theory articulating similar claims invites us to "forget

[3] Council of Europe Convention on preventing and combating violence against women and domestic violence; it is signed in 11 May 2011, has been in force since 1 August 2014.

everything we know," because someone has "pushed the button" (Yılmam, 2020).[4]

It may well be the case all over the world; but it seems that conspiracy theory generating capacity and the inclination to believe them is quite widespread in our geography. As we remember, there has been a number of conspiracy theories put forward with regard to many issues including how the Ottoman Empire collapsed, who were behind the military coups and interventions Turkey has faced since 1960, who were responsible for the deterioration of the macroeconomic indicators and market fluctuations, and finally who perpetrated the frequent economic crises we have had in recent decades. It is not a surprise, therefore, similar conspiracy theories on the eruption of the COVID-19 crisis has been put forward so quickly.

Conspiracy theories have no doubt some attractive features. If anything, they relieve people of taking the big trouble of thinking, conducting scientific research, discussing, producing ideas, developing models, and putting forward logical explanations based on sound evidence. As stated by Prof. Bozkurt when interpreting the results of a recent public opinion poll on the effects of the corona pandemic, "we look for simplified solutions to eliminate the uncertainty when we face complicated problems we cannot solve. Conspiracy theories provide this simplicity we look for. The data indicate that conspiracy theories are more popular among the people who have a self-confidence problem, hence refraining from facing the difficulties of life. Perhaps many things will change after the pandemic, but the possibility of weakening in the interest and believing in the conspiracy theories is not very high" (Bagci, 2020).

However, the comfort brought about by the conspiracy theories is a fake, wrong and temporary one; the problem is not solved, it remains there. Even worse, conspiracy theories pacify people, destroy their psychology, leading them to get drowned in a sense of "being sieged by some dark forces." Maybe the worst part of believing in the conspiracy theories is the fact that it prevents us see and admit our role and take responsibility in the process, hence taking the easy way of finding a scapegoat to throw all fault and responsibility to others, of course these are the "external dark forces" most of the time (Acar, 2018).

n short, all conspiracy theories suffer from a weakness to be convincing in a logical-rational base, and offering not a feasible solution. As far as the corona conspiracy theories mentioned above are concerned, the one claiming that the virus is produced by the US to harm China collapses when faced with the reality that the highest number of cases and death toll is observed in the US

[4] Although it has some conspiracy-like implications, the most reasonable argument we have confronted so far with regard to the coronavirus is the one raised by two American medical doctors who have experience on microorganisms and immunization. Based on the data obtained, observed and analyzed over the last several months, they argue that something is wrong in the process of fighting against corona, that the panic atmosphere may be exaggerated on purpose. According to their findings, there is very little difference in terms of death rates between those countries imposed curfew and business shut downs and those who did not. Moreover, there seems to be a pressure on the doctors to mention covid-19 among the reasons for death even though they die "with corona" rather than "because of corona," just like the case with a typical influenza. In short, the importance of quarantine is exaggerated, people are unnecessarily forced to stay home, which further weakens their immunization system (Bitchute, 2020).

today. The counter theory claiming that China produced the virus to harm the US collapses in face of the reality that the Chinese economy suffers most from the eruption of the pandemic. What about the claim that "they will find the vaccine and sterilize us"? Well, we may ask then: "Why are you waiting? Why not you find a cure before them, preferably a better one, and save the humanity? Is anyone tying your arms and hands?" Finally, against the terrifying "forget everything you know, somebody pushed the button" type of conspiracies, we can again simply say the following: well, "chivalry has long been dead since the rifle is invented" as an old Turkish saying goes, i.e. nothing has been the same as the former or older one since the invention of the computer and the internet combined with the giant advancements in communication, transportation and information processing technologies; somebody keeps "pushing the button" in different corners of the world, and "there is nothing new under the sun" in this sense, as the philosophers underlined many times.

As of today, the virus continues to spread though at a slower pace; accordingly nobody knows as to when it will stop spreading and go away. There are various predictions or guesses with no certainty. Even though it was expected to slow down visibly when the average daily temperatures get high in mid-summer, no one can say anything when it will totally leave the world. Even worse, a second wave has been expected in the autumn, which seems already on the way. Various countries have been trying to develop a vaccine to cure the disease, no good news have been heard yet; nobody expects an effective cure to be found before 2021. As is the case for almost all other issues, the uncertainty about the future of the coronavirus pandemic heightens anxiety and discomfort, restrictions on the mobility of people continue to make life difficult for everyone.

The following section discusses the effects of the pandemic in economic, social and academic life, what has changed, what is going to change and what will remain unchanged.

Post-corona World: What Will Change in Economic, Social and Academic Life, and What Will Remain?

It is for certain that the coronavirus will change many things in our life so that in the post corona world things will not be exactly the same as before. The pandemic "will not have only long-lasting effects it will also lead to fundamental socio-economic and political changes" (Khan, 2020). But an assertion that "nothing will be the same from this moment on" would be an exaggeration. Below is a critical evaluation on what will change and what will remain in the post corona world in social, economic, and academic life, respectively.

The Effect of Coronavirus in Social Life

Upon the eruption and realization of the seriousness of COVID-19 pandemic, all countries imposed certain measures to slow down its expansion, keep the number of cases and the death toll under control, and offer better medical

services. These measures, which have both individual and social implications, can be summarized as follows: hygiene, "social" distance, curfews, travel restrictions, permission requirements on entering into and existing from the cities, shut down of businesses and shopping centers, compulsory holidays by the employees, part-time work, working from home, 14-day required quarantine for the travelers, and a general call for all to "stay home."

Among the hygiene rules so frequently reminded through the mass media are washing hands, use of cologne and other disinfectants, and using masks and hand gloves when going out and shopping. Another important concept that has entered into our life in this process is the "social distance," asking people to keep in between a physical distance of about 1.5-2 meters when talking to people.[5] It includes no shaking hands, no giving hugs, no kissing, and abstaining from any kind of physical touch, which seriously limits human relations and interactions.

What can we expect in social life to change from now on concerning COVID-19?
As already has been adopted, keeping physical (not social!) distance between individuals in the streets, restaurants, mosques and houses of worshipping, shopping centers, etc. will be the norm for quite a long time. Shaking hands, giving hugs and similar intimacy reflections with our friends and relatives will be replaced by new types of interactions with more physical distance.

It is indeed a prophetic-religious tradition and advice to wash hands before and after every single meal. But this has been neglected for a long time by most of us like many other prophetic advices. Corona will force us to wash hands, with soap if possible, as frequently as possible from now on. As such, cleaning utensils such as cologne and other disinfectants will be part of our life in the aftermath of the corona.

Masks, once upon a time before corona, were something we saw in medical institutions and hospitals, used mostly in intensive care units. Now in the post corona world, however, masks will be part of our life as well. When we go out for anything, during shopping, walking, doing our business, when interacting with people, we will have to put a mask on our face, keeping our nose and mouth covered. Experts say that the use of a mask protects patients by 70% and non-patients by 30%, reducing the likelihood of getting infected by this ratio. We expect, therefore, that using masks to be a necessity, rather than a luxury in this process.

Something we can expect in social life from now on would be relatively lower occupancy rates in the restaurants, cinemas, theaters, discos, cafes and similar entertaining centers. Given the fact that it is more likely to get infected with the virus in crowded places, people will rethink now before they go out for such places. Similarly, people will not go to shopping centers as frequently as it

[5] In fact, this is a misnomer since we are talking about "physical" distance as part of the measures against corona; "social" implies communication, conversation, salutation, solidarity, helping, giving hand, supporting, and socialization which should not be left aside in any case. Therefore, sooner or later this mistake of misnaming should be corrected and named properly as "physical," not "social" distance.

was before corona and will spend less time there; hence, electronic shopping, or e-trade will replace traditional shopping to a great extent.

It is a well-known fact that it is not easy to stop smoking, drinking or some other unhealthy habits. But equally known that the greatest fear of human beings is the fear of death. When felt the cold breath of death in his neck, man can leave more easily the bad habits he could not leave under normal conditions, forcing his will more effectively. Accordingly, starting from smoking, we can expect in the post corona world a tendency to reduce in many unhealthy habits and addictions

Finally, in the post corona world, we expect a reduction in the frequency and duration of the visits given to friends and relatives, at least for a considerable time. This is quite visible as of today: partly because of the official restrictions, partly for precautionary purposes, visiting relatives, friends and neighbors has fallen sharply in recent months.

Well, what will not change, or what can we expect to remain as it was after corona?
We already mentioned that an assertion like "nothing will be the same after COVID-19" would be an exaggeration. Many things will remain unchanged after corona as well.

First of all, the human nature will not change. Contrary to what some argue, there is such a thing called "human nature," there has always been since the beginning of human life on earth and will remain so until the Day of Judgment. For instance, human beings will continue to get hungry and thirsty so that they will continue to eat and drink; they will still need morals and manners, so they will continue to get dressed, attach importance to personal care and grooming. Our biological, sexual, physical, and spiritual needs will continue to exist. We will continue to believe in God, the hereafter, and metaphysical issues, hence worship. In order to survive, we will have to feed ourselves. In order to feed ourselves, we will have to work, produce goods and services, and earn income. Circular flow of economic activities where someone's expense is someone else's revenue will continue. We will have to earn income, save some of it, make investments, try to expand our business, feed and educate our children. Socialization, getting married, having children, coming together with friends, live together in a neighborhood, the need of belongingness and helping each other will still be there.

The need for coming together, negotiation, cooperation and solidarity at all levels,be it individual, local, national and international will continue. Man-man, man-god, man-nature, individual-society, and citizen-government relations and interactions will continue as we know it for thousands of years. In short, life will continue, the process of being subject to a test on earth as human beings will continue without interruption. Yes, we don't know for sure when the Day of Judgment will come, but we know that we are in a process of being tested on earth whether we are doing good or evil until that day come.

The Effect of Coronavirus in Economic Life

Economic life will no doubt be the area in which negative effects of COVID-19 is observed most. The trauma that has been experienced by the business world and almost all industries since the beginning of the pandemic will continue to be felt in the same way for a long time. We will experience –as a matter of fact, we have already started to experience- considerable changes and detrimental effects of the pandemic in many economic phenomena such as unemployment, economic growth, government role in economic activities, public expenditures, social aid, monetary expansion, and resulting inflation.[6]

Obviously, employment will decrease in almost all industries producing goods and services, hence increasing unemployment. Not surprisingly, in Turkey unemployment started to increase since February 2020 and became more visible afterwards. Seasonally adjusted unemployment rate in non-agricultural sectors in February was estimated to be 14.6%. Non-agricultural employment and labor force fell by 277 and 356 thousand people, respectively. The fall in labor force and employment has been highest since January 2005. Sectoral data show employment losses in all sectors where it is highest in agriculture (218 thousand) and services (194 thousand) (Gürsel & Sahin, 2020). Despite official directives not to fire employees due to pandemic, deterioration in employment statistics continued afterwards. According to the most recent statistics released by TUIK, in the first quarter of the pandemic (March-April-May 2020) non-agricultural unemployment rate is estimated to be 14.9%. Number of employed persons fell in this period by 2.6 million, employment rate fell by 4.9 percentage points (41.1%). Similarly, compared to the previous year, labor force fell in April 2020 period by 3.1 million, which corresponds to a labor force participation rate of 47.2% (5.7 percentage point fall). Even worse, compared to the previous year, the young (15-24 age) unemployment rate has increased by 1.2 percentage points and reached to 24.4% (CNN TURK, 2020).

We expect similar developments, that is contraction in labor markets, declining employment and increasing unemployment rates all over the world. This implies that the world economy will contract considerably both at individual country level and as a whole. Tourism and transportation will be two sectors where the contraction will be most visible. Indeed, there has been severe restrictions on international flights all over the world for several months, still continue in many countries. In the "new normal" period, there will be less travel, both internal and external; less tourist flows both nationally and internationally. It will take a long time before tourism, transportation and other sectors to return to normal. Accordingly, almost all institutions investigating the effects of the pandemic including IMF, OECD and the World Bank forecast that the world economy will contract seriously. In 2020 almost all countries are expected to contract and face recession. According to IMF, the economic growth is expected to be -5.9% in the US, -7.0% in Germany, -9.1% in Italy, -5.5% in Russia, -5.0% in Turkey, and -8.0% in Spain (IMF, 2020). These seem to be quite optimistic predictions: it would not be surprise

[6] See Duran and Acar (2020) for a more detailed analysis of the macroeconomic effects of Covid-19 on a sectoral basis.

if we observe economic contraction rates to be much higher. As such, Turkish economy contracted by -9.9% in the second quarter of 2020 (TUIK, 2020).

No doubt the role of governments will get ever bigger in the economy and become more visible in social life in the post coronaworld. To make a long storyshort, there has always been a friction and even conflict between *pro-market* tradition (Classical, Neoclassical, Monetarist, New Classical schools) and *anti-market* or *pro-command* and *pro-government* tradition (Mercantilist, Keynesian, New or Post Keynesian, Marxist-socialist schools) on the role of government in the economy. In terms of the mentality shaping the economic policies, the pendulum has been swinging ever since between the *free market* approach and *command* or *statist* approach.

In this framework, free markets-free trade approach dominated economic affairs in late 19th and early 20th centuries. On the contrary, the statist, interventionist, pro-government and protectionist approach became dominant with the eruption of World War I and subsequently the Great Depression of 1929 for decades in both political realm and academic circles. The role of government had become ever greater in this period. Starting with late 1960s, on the other hand, the tide reversed because of widespread *stagflation* (high unemployment plus inflation), inefficiency, irregularities and public finance problems. Keynesian type of interventionist and protectionist tradition weakened with the rise of pro-free market and free trade approach as reflected by changing political power dynamics where Reagan came to power in the US, Thatcher in the UK, and Ozal in Turkey in the 1980s all of whom favored less government, more free markets, privatization and market oriented reforms. This process was reinforced by the collapse of USSR and central planning system in the early 1990s. Skousen (2001, 2016) described this free market and free trade-oriented process with less government as "Adam Smith's return to Washington."

Yet the pendulum keeps swinging: 2008-2009 global economic crisis reversed the tide and the statist, interventionist, inward-looking, Keynesian type of economic policies became popular once again. It is a well-known fact that economic policies implemented in the US under Trump administration in recent years has nothing to do with pro-globalization, outward-looking, free market and free trade policies traditionally linked with the US. On the contrary, a set of anti- globalization, interventionist and protectionist policies are in force raising tariffs and other barriers on international trade predominantly against China and other major trade partners. We may guess that the coronavirus pandemic will reinforce this orientation. Accordingly, the role of government will get ever greater in the near future all over the world in economic and social life, praising the merits of self-sufficiency, autarky and governmentcontrol.

As such, governments all over the worldsince the beginningof the latest pandemic started to implement interventionist policies increasing government control at all levels. Outstanding debts of the companies have been postponed, financial

easiness was provided to stringent firms, and unemployment payments and social assistance packages were released. Table 2 summarizes major monetary and fiscal policy measures taken bygovernments against COVID-19.

Table 2. Policy Measures Introduced by Governments to Fight COVID-19

Policy	Measures	Implementing country
Monetary Policy	Mandatory regulatory operations by the banks and offering debtors affected by COVID-19 principal and interest moratorium.	Ireland, China, Nigeria, Italy.
	Providing liquidity by the central banks to the financial markets.	USA, China.
	Purchases by the central banks of bonds and securities with rapidly decreasing values.	Australia, EU, Canada.
	Reducing interest rates by the central banks.	Turkey, USA, New Zealand, Japan, UK, Nigeria, South Korea, Canada.
	Continuous credit flow to the banks, SMEs, public health sector, individuals and critical enterprises.	UK, USA, Australia, Nigeria
Fiscal Policy	Approval by governments of big federal assistance packages for industries heavily affected by COVID-19.	UK, USA, Australia, Nigeria, Turkey.
	Social aid payments to support all households.	Australia, USA, Turkey.
	Providing income support for individuals.	Australia, USA, UK, India, Turkey.

Source: *(Ozili & Arun, 2020:15).*

During the corona process and in the post corona world public expenditures will increase for a long time, money supply will expand, company rescue operations will be implemented, hence increasing the role of government in the economy. Government budgets will be under stress and face difficulty due to increasing health, public and social assistance expenditures in fighting with the pandemic (Bayar et al., 2020: 6-7). The popularity of free trade and pro-free market arguments will hit the bottom in political, bureaucratic and intellectual circles, the merits of self-sufficiency will be praised. Some breaks and interruptions can be expected in the supply chains, causing states to look for alternative channels. Some countries are likely to start domestic production of some of the previously imported goods.

However, one of the universal laws of economics states that "everything has a price" and there is no such thing as a free lunch (Acar, 2018: 25). Accordingly, there will be some unavoidable, unpleasant, and undesirable consequences of the government getting bigger and bigger in social and economic life, increasing public expenditures, and intervening in every aspect of our lives.

One of these undesirable consequences of a big government is increasing budget deficits. Budget deficits will expand tremendously due to falling tax revenues -as a result of economic contraction and financial easing policies- and increasing government expenditures to finance rescue operations and social assistance. There are basically three ways to finance budget deficits: 1) Printing new money, 2) Increasing taxes, 3) Borrowing. Printing money and monetary expansion when there is not a reciprocal increase in output will necessarily increase inflation, which is another universal law of economics (Acar, 2018). Inflation is always and everywhere a monetary phenomenon (Friedman and Friedman, 1980). It is a problem with several detrimental effects: it makes the poor with fixed income even poorer; deteriorates income distribution; leads to unfair income and wealth transfers between employee-employer and debtor-creditor; destroys price signals and leads to inefficient allocation of resources; causes escape from domestic currency, hence leading to dollarization, etc.

Increasing taxes, on the other hand, obviously reduces purchasing power of the consumers, which in return further reduces demand, leading to economic stagnation. Domestic borrowing by government to finance budget deficits raises interest rates and directs most of the financial resources to the government, leaving less amount of resources with higher costs to the private entrepreneurs for investment, hence crowding out. Equally worse, excessive borrowing from external sources has many undesirable consequences ranging from increasing country risk to narrowing a country's maneuver capability in implementing independent foreign policies.

Finally, maybe the most important of all is the potential danger of ever bigger government in economy to threaten the civil rights and political liberties. Most of us do not desire to have a government that is big enough to decide how the citizens would live, what to eat and drink, what to watch and how to entertain, what to produce and in what amount, what can and cannot be done in certain time and space. Another universal law of economics underlines the importance of government being limited, transparent, and accountable (Acar, 2018). It is very important in this regard to keep in mind that "government has nothing to give anybody except what it first takes from somebody, and a government that's big enough to give you everything you want is big enough to take away everything you have got (Reed, 2008: 6). Therefore, it is crucial not to go too far when increasing the role of government in economic and social life in the name of fighting corona, keep a balance between government and markets. In other words, a freely operating market guided by the price mechanism to balance supply and demand should be reestablished within a reasonable time range.

The Effect of Coronavirus in Academic Life

As is the case in almost every aspect of life, the coronavirus will necessarily have certain effects on education in general, academic life –higher education- in particular. Some of them are already under way. Upon the eruption of the pandemic, the world started to rethink the issue of education from elementary

to higher education levels, virtual lecturing and distance learning gained importance. Almost every single country had to take certain measures to minimize the harmful effects of the pandemic on education. The US suspended university entrance exams for this year. In many countries schools have been shut down and exams cancelled or postponed. An expert state the following when evaluating higher education before and after the pandemic: "In the new era open and distance education systems threaten the established university education systems. Universities have difficulty to provide the qualifications expected from them. Those universities who read and assess this process correctly will survive while others who do not adjust themselves to this process will have much difficulty to survive" (Yavuz, 2020).

Turkey too, like many other countries, stopped in-school education in mid-March, suspended all educational activities and let the students go home. After a 2-week break, necessary infrastructure was made ready and the country switched to distance learning and virtual lecturing over the internet. All Turkish universities provided virtual education in the rest of Spring 2020 semester, some through *synchronized*, some others *asynchronized* methods. There has been a considerable accumulation of experience on advantages and disadvantages of distance learning.

In our opinion, it is impossible to find the same sincere and informal atmosphere of the class in the mechanical setting of the distance learning. You can have eye-contact with the students in the traditional classroom, talk to them one-to-one, have in-depth conversation, and make jokes in a fairly intimate environment, which cannot be found in the virtual class. This may be the most important disadvantage of lecturing over the internet. But, in addition to such disadvantages, distance learning has some advantages too, as every other social phenomenon.

One of the major advantages of distance learning is the possibility to record all the lectures, save, and make them available to all students so that they can watch whenever they want. Even if a student cannot attend the virtual class in time, s/he can log in to the system later and listen to the lecture recorded earlier. Secondly, e-learning system eliminates the compulsory attendance. In many countries, traditional higher education system requires certain minimum attendance. In Turkey, for example, this is 70% of total lectures in each semester. If you take it seriously, it creates problems for many students who might not have a proper document for his or her excuse for not attending. This means that many students have a risk of automatic fail without taking the final exam due to lack of attendance. This is a troublesome situation many of us may not want to face at the end of every single semester. In this regard, virtual education has an advantage to eliminate the mandatory attendance problem. It is impossible to repeat the natural in-class lecture, whereas virtual lectures can be repeated as many times as one wishes.

Another advantage of distance learning that may not come to mind at a first glance is that it promotes to produce much more written audio-visual materials for every single course. Even those professors who prefer in the normal class to talk more and use the blackboard every now and then, would have to prepare now in virtual class written materials, especially power point presentations, which contribute to the accumulation of written audio-visual course materials. Perhaps one of the most important advantages of distance learning is the fact that it reduces educational expenses greatly. University students under this system can completely get rid of transportation and accommodation expenses. Closely related with this advantage, this system allows students to save time to spend for going to school and coming back every day, which could take several hours especially in metropolitan cities. Nevertheless, what seems to be an advantage from one angle, would be a disadvantage from another. Millions of young men and women attending to the higher education system is a major source of income for many sectors in the cities and towns preeminently for transportation, accommodation, food and beverages, and entertainment sectors. Students returning home and taking virtual education from there naturally deprives those sectors of a major source of income. The contribution of students' expenses in many Anatolian towns and cities is something that cannot be ignored.

One of the effects of coronavirus on academic world is that most of the scientific meetings such as the congress, conferences, seminars, panel discussions, and symposia have been moved to the virtual world. Almost all such scientific gatherings all over the world during the last several months have been offered over the internet. Academics and researchers meet in the virtual world through various communication technologies and tools including Zoom, Skype, Adobe Connect, Microsoft Teams, Google Classroom, and Webjam.

One of the virtual scientific platforms that the coronavirus made popular recently is the "webinars," i.e. web-based seminars.[7] Webinars are practical meeting platforms, which do not require as much preliminary preparations as a congress, conference, or symposium; they have less formal rules, in most cases they require no participation fee, and it is easier to participate and they contribute much to academic interaction and accumulation of knowledge.

The experience we have indicate that in the post corona world there will be more room for distance learning and the use of internet technology will have a much larger share in the education system. Likewise, a bigger proportion of scientific gatherings at national as well as international level will be organized through the internet.

What will remain unchanged?

Despite the aforementioned advantages, virtual education is not a full-fledged alternative to the traditional in-school education today. In this regard, we expect

[7] The author of this paper has participated more than twenty webinars over the last two months of the Spring semester as either speaker, or moderator, or as an audience.

to return to in-school education when life turns back to its normal mode, unless corona takes over control and become a permanent threat. But the internet technology and virtual education will still be there as a complementary part of the education system. The two fundamental issues that make the traditional in-school education system more preferable to the virtual alternative are concerns over the reliability of the testing and assessment tools of the virtual system and the intimacy and more fruitful conversation possibilities offered by the traditional in-class system. We will still need for the foreseeable future schools, classes, dormitories, student-houses, public transportation facilities and face-to-face professor-student conversation and interaction in the physical class environment.[8]

Conclusion

The world has been fighting against a dangerous virus called the COVID-19 since the beginning of 2020. First detected in China at the end of 2019, the coronavirus spread all over the world rapidly and turned to a global pandemic within a few months. As of the mid-September 2020, total cases approached 30 million, causing nearly 930 thousand deaths (3.2%) where 20.7 million recovered (71.9%). Nothing certain can be said as to when and if it will leave the world. Even the optimistic guesses say it will be around for the next two years.

As expected, governments, public authorities or decision-making bodies all over the world took a series of measures to prevent the pandemic from spreading fast and keep the number of cases and death toll under control. Travels were restricted, international flights were banned, permission was required to enter and exit from the cities within countries, curfews were declared frequently. Out of necessity, the governments intervened economic and social life in many ways, introduced expansionary monetary and fiscal policies, provided financial ease and liquidity to the banks, firms and companies having solvency problems. Public expenditures on health, unemployment payments and social aid have skyrocketed.

It is for certain that such a fatal, dangerous, and widespread pandemic forcing people to stay home for months would change certain things in our social, economic and academic lives from now on, too.

Among the economic effects of COVID-19 that are observed so far and expected to continue in the near future are economic stagnation, recession, and even contraction. We expect negative growth rates in almost all industries preeminently in tourism industry, hotels, restaurants, and transportation. Accordingly, unemployment rates are expected to increase considerably. We also expect that the role and weight of government in the economy to increase, expansionary monetary and fiscal policies to continue, accordingly government expenditures enormously go up, and Keynesian type of interventionist, statist,

[8] See Demir et al. (2020) for a recent survey on the effects of corona isolation period on academicians in Turkey.

command-based policies dominate for the foreseeable future. However, if this process continues too long and government expenditures are increased beyond controllable levels, there will be some unavoidable and unwanted consequences like giant budget deficits, public finance difficulties, and ever higher rates of inflation. It is important in this regard to keep a balance between the market mechanism and government, and sterilization of the monetary expansion be done with proper tools. The unwanted consequences of too big government on basic rights and liberties should always be kept in mind: political freedoms are indispensable parts of economic freedoms; a government big enough to give you everything you want is big enough to take everything you have got.

In social life, we expect two concepts to become central: mask and distance though "physical," not "social," because the latter is a misnomer. People will not walk around without mask and they will have to pay attention to keep a reasonable physical distance when interacting with people both at home and work or on the street and public squares. Hygiene will be of utmost importance, making washing hands, using cologne and other types of disinfectant inseparable parts of our life. There will be less visits to friends and neighbors and the visits will be shorter in the near future.

Academic life in particular, and education industry in general, will be ever more inter-connected with computers, internet, and education technologies. We will turn more from now on to distance learning and virtual education over the internet instead of traditional in-class lecturing. More of the national and international scientific gatherings will be organized in the virtual world using internet technology. But contrary to what the popular expression "nothing will be the same from now on" implies, certain things will remain unchanged in the aftermath of the corona as well, no matter what. Life will continue after corona.

For instance, the human nature will not change. Accordingly, we will get hungry and thirsty, so we will have to eat and drink, feed ourselves and our children in order to survive. We will need to get involved with economic activities like production, consumption, saving, investment, and earning income for a living. We will need food, beverages, clothing, and shelter. We will still be in need of socialization, coming together, help each other, visit friends, entertain, get married, have children, raise and educate them, interact with other human beings, animals, plant, and the nature. The fatal importance of health, education, food and agriculture, and the supply chain as well as wholesale and retail trade will continue. In short it would be a gross exaggeration to say "nothing will be the same after corona." The conspiracy theories circulating around on how, by whom and for what purpose the corona was produced are all lacking sound evidence, hence can be left aside.

Unfortunately, the role and weight of government will increase for quite a while, the statist-interventionist and protectionist policies will prevail, and the idea of free market, free trade and less government will lose ground. But this

is not the end of globalization and the free market. Unless people give up all the tools making their lives easier and joyful –cellular phones, social media, computers, internet, cars and so on, which is not very likely, globalization will continue though slow down a little on certain fronts. Free market capitalism, though it will get weaker for a foreseeable future, will not die. The current move towards centralization and economic nationalism will never evolve to the level of the madness of a central planning, full-fledged command economy and socialism. Hopefully, the terrible experience of communism of the twentieth century, Berlin Wall and eventual collapse of the socialist system is still alive.

References

Acar, M. (2020). Korona Kimin Başının Altından Çıkma? [Who Produced Corona?] https://fikircografyasi.com/makale/korona-kimin-basinin-altindan-cikma (15.05.2020)

Acar, M. (2018). İktisadın Evrensel Yasaları ve Kadim Sorunları [Universal Laws and Eternal Debates of Economics]. Konya: Literatürk-Academia.

Al, M. (2020). Koronavirüs Sınavında Almanya ve Avrupa. [Germany and Europe in the Coronavirus Test] https://fikircografyasi.com/makale/koronavirus-sinavinda-almanya-ve-avrupa (14.05.2020)

Arabacı, A. O. (2020). Yeni Koronavirüs Salgınının Bir Deney Olduğu İddiaları. [Claims on the New Coronavirus Pandemic As An Experiment] https://teyit.org/yeni-koronavirus-salgininin-bir-deney-oldugu-iddialari/ (18.05.2020)

Bagci, S. (2020). Salgının Belirsizliği Huzursuzluğu Artırdı. [The Uncertainty of the Pandemic Increased Discomfort] https://www.hurriyet.com.tr/yazarlar/sibel-bagci-uzun/salginin-belirsizligi-huzursuzlugu-artirdi-41501744 (Hürriyet, 24 April 2020)

Bayar, A.A., Güncavdi, Ö., & Levent, H. (2020). COVID-19 Salgınının Türkiye'de Gelir Dağılımına Etkisi ve Mevcut Politika Seçenekleri [The Effect of COVID-19 Pandemic on Income Distribution in Turkey and Available Policy Options]. *Policy Report of the Istanbul Political Research Institute*. April 2020.

Bitchute (2020). American Doctors' Evaluations on COVID-19. First Published on May 16th, 2020. https://www.bitchute.com/video/sHW3L5HLF4Yk/ (22.05.2020)

Chakraborty, I., & Maity, P. (2020). COVID-19 outbreak: Migration, effects on society, global environment and prevention. *Science of the Total Environment*, 138882.

Cevik, E. (2020). Koronavirüs Bir Sosyal Deney mi? [Is Coronavirus A Social Experiment] http://www.guneyhaberci.com.tr/koronavirus-bir-sosyal-deney-mi-makale,957.html (18.05.2020)

CNN TURK (2020), "İşsizlik rakamları açıklandı" [unemployment figures released], w.cnnturk.com/ekonomi/turkiye/son-dakika-issizlik-rakamlari-aciklandi-1007 (10.07.2020)

Demir, O., Toprak, M., Yildiz, S., Demir, Z., Kalaycioglu, D., Guc, A., Ugur, Z.B., Eyerci, C., Toprak, O. (2020), *The Effects of Isolation Period on Academicians in Turkey*, http://omer-demir.net/pubs/izolasyon-doneminin-turkiyedeki-akademisyenler-uzerine-etkileri/ (30.07.2020)

Duran, M.S. and Acar, M. (2020). "Bir Virüsün Dünyaya Ettikleri: COVİD-19 Pandemisinin Makroekonomik Etkileri" [What A Virus Could Do to the World: Macroeconomic Effects of Covid-19 Pandemic]. *International Journal of Social and Economic Sciences*, E-ISSN: 2667-4904, *10*(1), 54-67.

Friedman, M., & Friedman, R. (1980). *Free to Choose*. New York and London: Harcourt Brace Jovanovich.

Gürsel, Seyfettin, Sahin, M. Cem (2020). Labor Market Outlook: May 2020, https://betam.bahcesehir.edu.tr/2020/05/isgu%cc%88cu%cc%88-piyasasi-go%cc%88ru%cc%88nu%cc%88mu%cc%88-mayis-2020/ (15.05.2020)

IMF (2020). World Economic Outlook. (05.05.2020) https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020

Internethaber (2020). "Corona Virüs Aşısıyla Herkesi Kısırlaştıracaklar!" [Everyone Will Be Sterilized by the Corona Vaccine] https://www.internethaber.com/corona-virus-asisiyla-herkesi-kisirlastiracaklar-abdurrahman-dilipak-iddiasi-2087660h.htm (19.05.2020)

Khan, N. (2020). The Post-corona World Politics. https://dailytimes.com.pk/596937/the-post-corona-world-politics/ (30.04.2020)

Milli Gazete, Turkish Daily, 30 April 2020. https://www.milligazete.com.tr/haber/4315679/dilipaktan-korona-uyarisi-istanbul-sozlesmesinin-sahipleri-uretti (19.05.2020)

Ozili, P. K., & Arun, T. (2020). Spillover of COVID-19: Impact on The Global Economy. Available at SSRN 3562570.

Skousen, M. (2001). *The Making of Modern Economics: The Lives and Ideas of the Great Thinkers*, M.E. Sharpe. (Turkish Trans. by M. Acar, M. Toprak and E. Erdem, 7th Ed., 2016, Ankara: Adres.

Reed, L. (2008). *Seven Principles of Sound Public Policy*. Mackinac Center for Public Policy, Detroit, Michigan, October 29, 2001.

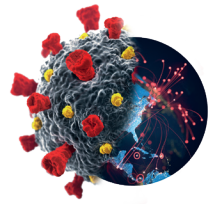
Seker, M., Özer, A., Tosun, Z., Korkut, C. and Doğrul, M. (Eds.) (2020). COVID-19 *Pandemic Evaluation Report.* http://www.tuba.gov.tr/files/images/2020/kovidraporu/COVID-19%20Raporu-Final+.pdf (01.05.2020)

NEÜ TIGA (2020). N. Erbakan University, Center for Global and Area Studies, *Post-Corona Perspectives on Global Politics*. Hosted by Prof. Dr. Mustafa Acar, Dr. Yang Chen, Dr. Piyush Mathur. 30.04.2020. https://www.youtube.com/watch?time_continue=11&v=AxJwg_p2oqo&feature=emb_logo

TUIK (2020), Anahtar Göstergeler [Key Indicators], www.tuik.gov.tr

Yılmam, İ. (2020). Bildiğiniz Her Şeyi Unutun-Düğmeye Basıldı [Forget Everything You Know-Someone Pushed the Button]. https://www.youtube.com/watch?v=PEBlzyPWb8U&feature=youtu.be (13.05.2020)

Yavuz, M. (2020). Pandemi Öncesi ve Sonrası Yükseköğretim: Fırsatlar ve Tehditler [Higher Education Before and After the Pandemic: Opportunities and Threats]. Webinar, NEÜ TIGA, 21 May 2020. https://event.webinarjam.com/t/click/k6km4izva77skphx5nu5wu7ksq



International Relations Theory and World Order After COVID-19

Gülnur Aybet

Prof. Gülnur Aybet

Prof. Gülnur Aybet is Senior Advisor to the President of the Republic of Turkey and member of the Presidential Security and Foreign Policy Council. She is a professor at Turkey's National Defense University. She was professor of international relations at Yildiz Technical University, Istanbul, between 2017-2019 and she was former Head of Department of Political Science and International Relations at Bahçeşehir University, Istanbul between 2014-2016. Between 2001-2013 she was a Senior Lecturer at the University of Kent, England, where she created and directed the first MA programme in International Security. She also held academic posts at the University of Nottingham, England and Bilkent University, Ankara. Her areas of expertise include international security, transatlantic relations under NATO and the EU, and post-war state and security structuring. Dr. Aybet holds a BA Hons degree in Economics and Public Administration from Royal Holloway, University of London, an MSc in International Relations from the University of Southampton, an M.Phil in War Studies from King's College, University of London and a PhD in International Relations from the University of Nottingham.

International Relations Theory and World Order After COVID-19[1]

Gülnur Aybet
National Defence University of Turkey
Senior Advisor to the President
gulnur.aybet@tccb.gov.tr

Abstract
International relations theory has always tried to either preserve the world as it is or prescribe the world as it should be. The first great debate between realists and idealists embodied these two premises and subsequent development of theory also evolved within the same parameters. Whether critical or problem-solving theory, each in its turn either attempted to preserve and legitimise the status quo or sought alternatives to challenge it. Before COVID-19 the current international system was already going through a transition, with the tension between those who would like to preserve a globalist liberal order and those mercantilists reacting to it. COVID-19 will force new modes of cooperation to emerge and states will be neither totally mercantilist or protective of a global liberal order. States are likely to be more self sufficient and less reliant on international supply chains but more engaged in international trade. International cooperation will be needs based on a functionalist model and ideologies will not be in the forefront of policy making and theoretical development. International relations theory will no longer be preoccupied in preserving or legitimising a status quo or challenging it with alternatives. It will most probably try and explain the various non political, non ideological strands of international cooperation emerging out of needs not prescribed grand designs.

Keywords
Theory, hegemony, legitimacy, international system, international community, world order, COVID-19, functionalism

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The impact of COVID-19 on international modes of cooperation and transactions is likely to last longer than the present crisis. The policy choices of decision makers and the implementation of those policy choices are likely to be affected as patterns of cooperation and concepts of power go through transformations. Practitioners will not be the only ones affected by these changes. The problem solving and critical enquiries into how the international system works or ought to work, will also be challenged. Therefore, scholarly perspectives on international relations will also be forced to rethink some assumptions as well as policy makers. The relationship between scholarly perspectives and practitioners' choices and how they shape each other, has by and large been a western practice. International relations theories since 1945 either challenge or legitimise prevailing parameters of world order that are most favourable to the powers of the time.

International relations as a subject of enquiry borrows from a number of disciplines. Although, international relations became a main subject of study after 1945, in actual fact the first chair of international relations in the world was established at the University of Wales at Aberystwyth in 1919. Until this time, philosophy, political thought, law, economics, sociology, diplomatic history and strategic studies or the study of war were all separate fields of study. International relations consist of an amalgamation of all of these fields to make sense of the relations governing the world and the conditions of war and peace. As a predominantly western practice, even the ideas that came before international relations, which international relations are based upon are essentially Euro-centric. The great debate between idealism and realism was based on classical political thought largely derived from the works of Immanuel Kant and Thomas Hobbes. This then begs the question if international relations theory since 1945 has indeed offered us anything new in the way we think and make sense of the world? While international relations

theory has borrowed from other disciplines and works that have been widely acknowledged and discussed before the latter half of the twentieth century, it has made a contribution that is unique in the sense of how theory shapes policy and vice versa. This has been a practice embedded in Western academia and think tank culture which has its own very robust network amongst its many institutions. Although this network of academics and think tankers and their constant liaison with the policy world is dominated by a transatlantic core, it is not confined to geography alone, as Australia and New Zealand are also part of this scholarly milieu. Whereas the rest of the World aspires to emulate and absorb the standards set by these practices. This western core in the study of international relations holds a monopoly over widely accepted publications and the power to set and create widely accepted discourses. In other parts of the World it is less likely to see the same level of academic/think tank interaction with policy making as in for example Washington DC and many other European capitals. In fact, in the United States it is more common practice for academics to be seconded from their posts to the policy environment or get recycled from the think tank circuit each time a new administration comes into power.

The post 1945 world order reliant on a bipolar balance of power but which nevertheless sought to create an inter-dependent liberal order through international institutions, was reinstated and reinvigorated as a normative dominant liberal order in the 1990s with the collapse of the Soviet Union. This liberal order was overseen and dominated by a transatlantic core which wielded legitimacy through its institutions and exerted power not just through military and economic might but through the inspiration of values and ideas (Mandelbaum, 2002). Therefore, one of the most powerful assets of the liberal world order was the control of discourses on how the world made sense of current and past events. Labels are very powerful tools, especially when they emanate from a core that dictates widely acknowledged ideas embedded in globally respected academic publications. Therefore, in such a system of world order, legitimacy of the core is the key source of power above material assets and thus exerts global influence through widely accepted ideas and institutions. It becomes both the paradigm maker and the paradigm itself.

In a post COVID-19 world it is unlikely that this dominant Western monopoly on paradigms will change. Popular discourses and widely held ideas will still emanate from the same scholarly circles. Their dissemination through mainstream media will continue to bolster their position. However, the way ideas legitimise policies will suffer a set back. Practices will in turn shape ideas, not the other way round. This is because as international patterns of cooperation become less dominated by value and identity based relations, and become driven more by result oriented transactional relations focused on needs, the construction of ideas that legitimise policy decisions will become less and less frequent.

Will there be a paradigm shift? Thomas Kuhn describes a 'paradigm shift' as when a theory is no longer relevant and new theories emerge to take its place. In international relations theory such a paradigm shift has hardly ever happened (Kuhn, 1962). Although it is fair to say that each theory is unique to its own age as it seeks to explain phenomena as they arise and consciously or inadvertently legitimise or challenge the policies of the time. However, in international relations, there are a plethora of theories, none which have been replaced in a paradigm shift. It is therefore likely that although patterns of cooperation between states and international actors might undergo some changes in a post pandemic world, how we make sense of the world is unlikely to undergo a paradigm shift.

Since we are interested in historical change for the purposes of this chapter, we need to start with the difference between problem solving and critical theory as put forward by Robert Cox. Problem solving theory takes the world as it is and does not question existing patterns of institutions and relationships but rather focuses on fixing a problem in a specific area of activity. Critical theory on the other hand, takes a more holistic view and does not take institutions and power relations for granted, but questions them and looks for processes of change. Therefore, critical theory concerns itself with historical change. Cox posits that periods of stability like the cold war favour a problem-solving approach, whereas periods of uncertainty require a critical approach to "make sense of opportunities and risks of change." (Cox, p.130).

In this chapter, I argue that the case in a post COVID-19 world, will be the exact opposite. This new uncertainty will require more problem-solving approaches. Theory for theories sake that question the larger picture of the existing order or dis-order, will become superfluous.

There will be little place for grand designs or prescriptive critical theories that offer 'guides to strategic action.' (Cox, 1981: 130) All action will be forced to be tactical for a while, but not to perpetuate the existing order, as Cox would describe problem solving theory. This will be a different problem-solving approach, one that will be tactical but will not be interested in seeking an alternate order like critical theory, nor preserving the current one, like problem solving theory. This brings us to the question: Is there still room for theory at all in such a world? As long as relations exist and have to continue between actors in the international system, yes, there is a room for a theory of international relations in the post COVID-19 era. That theory is more than likely to be a form of functionalism. A descriptive, problem solving approach that deals specifically with how actors cooperate on the basis of common needs. This is an approach driven by needs, not ideologies or norms. Rather than perpetuating a given order or suggesting alternate orders to the current one, it concerns itself with processes of survival. An alternate order may gradually emerge from various strands of cooperation that become necessary.

Theory as a Legitimiser and Challenger of World Orders

What shaped the foundations of international relations theory was the 'great debate' between idealism and realism that dominated thinking on the state of international affairs from the interwar period between the two world wars and the aftermath of the second world war from 1945 onwards. The debate laid down the parameters of international relations theory as a struggle to explain the world as it *is* and the world as it *ought* to be. Idealism prescribed how the world ought to be, but nevertheless consolidated the status of quo of power relations of the day. This was the basis of Carr's critique of idealism as nothing more than the 'satisfied powers' at the time trying to preserve the 'status quo' (Carr, 1946: 225). Realism on the other hand seeks to preserve the prevailing order without any attempt to design it. Both realism and idealism consolidate existing power structures. Apart from this debate between the world as it is and should be, the second question which dominated international relations theory particularly since the 1970s was exactly who the actors in the international system were and why some ought to be more prominent as a subject of study than others. This challenge to states as the predominant actors in the international system derived from many theories with different methodologies that criticised the state centric notion of realism. In fact, we could say that international relations theory has largely been driven by critiques of realism.

Liberalism as it emerged in the 18th and 19th centuries was driven by the belief that wars and commerce were incompatible. The devastation of World War One and its aftermath set the stage for liberal idealism to become the forefront paradigm in rethinking how the world ought to be rearranged. Idealists or liberal institutionalists by another name, believed that the balance of power was not a phenomenon unique to the international system but was constructed by the ruling elites to perpetuate their interests. This was what liberal idealists called 'secret diplomacy' where a few bargained and maintained the power relations of the day through a war system, and statecraft was an elitist secret practice that did not reflect the wishes of the masses. Liberal idealists did not see war as a natural consequence of the international system but an aberration which had to be fixed. This could be fixed by correcting international anarchy by regulating the international system the same way as domestic politics. In other words, a system of global governance and international institutions would solve the age-old problem of an international system dominated by the balance of power that was corrected only by wars. Wilson's Fourteen Points at the end of the World War One, embodied the application of American constitutional values globally. The creation of the League of Nations through a system of collective security was supposed to safeguard these principles (Howard, 2008: 74-78). However, the failure of the League to stop Japan's invasion of Manchuria in 1931 and Italy's invasion of Abyssinia in 1935 showed that states did not have a universal and normative commitment to peace. Carr's critique of liberalism at the outset of World War Two not only laid bare the motivations behind the ideas of liberal institutionalism to preserve the status quo for the victors of World War One, but also refuted the idea that there was any natural harmony of interests between states that could be institutionalised (Carr, 1946: 60).

At the end of World War Two, Realism emerged as the dominant paradigm in international relations theory. Beyond the work of Carr, Hans Morgenthau brought a certain intellectual rigour to the furthering of the realist thesis. Morgenthau's brand of realism was based on the universality of human nature, rather than the predominance of the nature of the international system which was the main premise of neorealism and the work of Kenneth Waltz. Morgenthau put forward six principles of political realism: Politics governed by human nature based on rational behaviour; interests defined in terms of power as key to understanding political decisions; the changeable nature of forms of state power; the absence of universal moral principles to guide state behaviour; the nonexistence of a universally agreed set of moral principles; and an *autonomous political sphere* from legal, moral or economic concerns (Morgenthau, p. 12). Waltz and the neorealists on the other hand emphasised the international system as a uniquely defined structure which drives the need for states to accumulate power. Decisions or outcomes are therefore not driven by human nature but by the requirements of the system. Waltz justified this top down systemic approach by stating that traditional realists like Morgenthau could not explain behaviour beyond the level of the nation state (Waltz, 1990: 34).

While the debate in IR theory struggled between explaining the world as it is and should be, another struggle was the determination of the appropriate methodology with which to explain the phenomena in question. This shaped the 'second great debate' 1960s. Behaviourists of this period criticised realist methodology for its lack of rigour and introduced more quantitative methodologies and formal hypothesis testing (Burchill & Linklater, 1986: 20).

Realist/ neo realist explanations of the international system have been criticised for being ahistorical and problem solving because they take certain aspects such as interests and the pursuit of power as a given (Cox, 1981:132). If realism/neorealism require an ahistorical setting, this is because they can observe certain processes and phenomena by subtracting them from other phenomena in order to examine certain modes of behaviour inherent in human nature. For example, Morgenthau's *autonomous political sphere* from legal, moral or economic concerns is similar to Clausewitz's tripartite definition of war, where war itself is made up of three distinct components, society, the operational and the political, which Clausewitz states, the last is 'the business of government alone.' (Von Clausewitz, 2007: 30-31) Similarly in order to understand economic behaviour Adam Smith, separates 'economic man' from other other modes of human behaviour (Grampp, 1948). An abstract form of rationality allows for the examination of behaviour related to a certain type of phenomena. There is nothing wrong in being a problem-solving theory if ahistorical methodology helps us to explain the outcomes in international relations or helps us to predict recurrent patterns of behaviour. If realism chooses to stand back from a historically conditioned perspective, it does not necessarily mean that it is unaware of its historical relevance in time and space. Abstraction and subtraction of a given phenomenon and choosing to examine

it as a recurrent fixed aspect of the subject of study, be it war, the international system, or economics, is a choice of methodology, not a lack of one.

The fixed and given aspects of the functioning of the international system derive from the fact that there are certain aspects of the international system that are unique to itself. Such is the reasoning of rationalism, or the line of thought that is referred to as the English School. Somewhere between classic realism and liberalism is rationality and the notion of a world society, where states do indeed cooperate and value order, unlike the stark realist thesis of an anarchic international system, that is only corrected by the balance of power and recurrent wars.

Bull, Watson and Wight asserted that the international system may be anarchic and conducive to war as realists and neorealists claimed, but despite the lack of a central authority there was a remarkable order in international relations. This was because certain things were unique to the international system that one could not find in domestic politics such as diplomacy, international organisations, and international law. Above all, states valued order in the international system because it gave them a certain predictability about the behaviour of other states and international actors. Like realists and neo realists they were aware of the limits of international institutions, in that they could not solve all the problems of the international system, like liberal idealists had once believed. However, nevertheless the rationalists or the English School believed that the world was not necessarily as anarchic as realists/neorealists would have it. Why states would self-inflict on themselves this accommodation and compromise in an anarchic international system, starts off with functional, selfish reasons, It stems from the preference for international order, not from an innate sense of common values in the Kantian sense. There are two questions that rationalists try to answer: First, why do states value international order and secondly, is it possible that the regulatory rules and institutions of such an order will eventually lead to the formation of an international society where states are conscious of common values? (Watson, 1987) In the main rationalist literature from Wight, Watson to Bull, there is a sense of an unresolved puzzle as to what constitutes an international society. Should it aspire to a Grotian/ Kantian society of humankind? Is it only a society of modern elites around the world who are engrossed in the same daily practices and routines of international rules and regulations? Would such an international society be culturally diverse, or could there be a universal culture of international society? Would the predominance of Western culture in these practices eventually lead to a clash of cultures? These questions are essential in understanding world order but remain unanswered (Wight, 1966; Bull, 1977; Watson, 1987).

The question of whether regulatory practices under international institutions could form a society of states was also explored by Deutsch who envisaged an Atlantic community of states that were members of NATO, a military alliance of necessity but one that would nevertheless lead to a society (Deutsch 1957). In all these writings that sought to bridge a gap between idealism and realism,

the role of the state as the primary actor in the international system was intact. This was also the view put forward neorealists and neoliberal institutionalists throughout the 1970s and 1980s. As the 1970s saw an increase in transactional economic activity which challenged the centrality of the role of the state under realist and neo realist explanations of the international system, Gilpin and Krasner brought forward the notion of order based on accepted patterns of cooperation such as hegemonic stability theory and regime theory, to underline the role of the state in an increasingly globalized world economy. Like the English School, regime theory maintained that states valued regulations and rules that gave predictability to international relations because this enabled them to calculate and reduce the costs of international transactions (Aybet, 2001).

The end of the cold war once more put liberalism or neoliberal theories at the forefront of not only explaining what had happened but also legitimising policy actions that were to follow it. The triumph of the West after the Cold War, brought in a new ideological euphoria, one that accompanied the frenzy of writing and coding keywords into official documents of institutions with academic works that legitimised the blueprints for reconstituting a liberal world order.

Fukuyama's End of History underlined the triumph of liberal democracy and the arrival of a post-ideological world. In actual fact, it was heralding the dominance of one ideology the "universalization of Western liberal democracy as the final form of human government." John Ikenberry in After Victory asks the question, what do states that win wars do with their newfound power and how do they use it to build order? He maintains that only with the spread of democracy in the twentieth century and the innovative use of international institutions--both linked to the emergence of the United States as a world power--has order been created that goes beyond balance of power politics to exhibit "constitutional" characteristics. The notion of painting progress in terms of processes that must be lived through is fine, but this takes the progress in the international system as a linear process. This begs the question, do world orders and political/ideological evolution have to come in cycles or is the progression and degeneration of the international system a haphazard series of events with no connection to each other?

Both Ikenberry and Fukuyama were surprised at the endurance of the post 1945 Liberal international order after the collapse of communism and they sought to explain it: either by the *triumph of institutionalism* (Ikenberry, 2001) or the *end of Ideologies* (Fukuyama, 1992). Doyle on the other hand proclaimed that liberal democracies would not go to war with each other, but this would not rule out their going to war with non-democracies (Doyle, 1997). A prescriptive disaster for legitimizing military intervention against whom the Western victors of the cold war deemed not adhering to their set of values. There was a given premise that institutions would have failed, or Germany and Japan would have reverted to their old ways. Neither of these dreaded consequences

happened. Had the world indeed progressed to an international society that Hedley Bull had envisaged? While the liberals were trying to explain why the post 1945 system had survived, realists like Mearsheimer warned against the over estimation of international institutions. (Mearsheimer, 1994-1995) and Huntington warned of clash of civilizations, and that the end of the cold war may not produce the rosy picture put forward by the liberals (Huntington, 1996). Critical theorists were in a realm of their own, rebelling against the age old theory/practitioner relationship from Morgenthau to Ikenberry and hanging on to their belief that a world society could be created just by refusing mainstream discourse.

In the midst of all this, along came constructivism in the 1990s, which focused on the relationship between agents and structure, claiming that the latter had a power to shape and construct the identities and interests of the former. Alexander Wendt's phrase 'anarchy is what states make of it' (Wendt, 1992) sums this argument. Constructivism focuses on the power of norms and the study of how norms are challenged and replaced with new norms. Building on the neo liberal dominated environment of the early 1990s, constructivists contributed to the process of norm diffusion. In other words, now the explanation of how the West had won the cold war was over, it was time to diffuse that order to the post-communist space. Policy practice and theory were once again walking hand in hand.

Ironically, given that critical theory is against the policy/theory relationship and mainstream discourses, one could put critical theory and constructivism in the same box as they are both critical of neorealism and neoliberalism for their state centric approach. Both constructivism and critical theory will maintain that relationships beyond states matter in the international system and how actors in the system behave are determined by their perceptions of who they are and how they perceive themselves and others. Yet the constructivist focuses on norms and their dissemination in the early 1990s was a typical tool that legitimized the policy choices of the day. The reconstitution of a liberal world order in the 1990s, after the collapse of the Soviet Union and the necessity to absorb the post-communist space into Western practices and institutions, created patterns of thought that justified processes of norm dissemination. This could be through post conflict state building as in the Balkans, or member state building such as the absorption of the Central and Eastern European states into NATO and the EU. Therefore, constructivism, although critical of realism which was a problem solving approach, offered a 'guide to strategic action' like a critical theory, by shaping policies through a grand design of how the world ought to be, yet at the same time offered a guide to tactical actions, just like a problem solving theory, by perpetuating a normative liberal world order inherited from the triumph of winning the cold war. Therefore, all theories have a little of both problem solving and critical elements in their approach.

Processes of Norm Diffusion as Legitimisers of a Liberal International Order

As Cox put it: "theory is always *for* someone or *for* some purpose" (Cox, 1981:128) The literature on norm diffusion in the 1990s nevertheless contributed to the legitimization, promotion and diffusion of a reconstituted liberal world order. _Norms are "beliefs embodied in practice." (Farrell, 2001: 71). From 1990 onwards, we can see the appearance of a recurring discourse on international norms, in the official statements of various international organisations, from NATO, the EU to the OSCE. In all these documents there are three norms which are commonly referred to: the creation of a geographic space held together by *free market economies, democratic institutions and human rights*. This space is commonly referred to in institutional documents as the 'Euro-Atlantic area'.[2] (Aybet, 2000: 44-89).

Patterns of norm diffusion occur through a process of *socialisation* whereby international norms are *internalised* by domestic actors/institutions. This is a process of 'grafting' whereby international norms are transplanted onto local ones. The 1990s rich constructivist literature provides several patterns on how international norms are diffused and how they ought to be diffused. Thus, IR theory in this period not only legitimises liberal institutionalism but also provides it with method and application. Theo Farrell's 'norm transplantation' involves either an incremental process where international norms are grafted on to existing local norms through social learning, or a radical process, where international norms clash with local norms and are diffused through political mobilisation where the target community is pressured into 'adopting new ways of thinking and doing.'(Farrell, 2001, 65). Finnemore and Sikkink refer to norm 'cascading' whereby norms are taken up by states and international organisations in order to preserve and increase their legitimacy, reputation and esteem (Finnemore & Sikkink, 1998). This is similar to the Risse Kappen and Sikkink's process of *socialisation* whereby domestic actors accept the validity of international norms in their discursive practices. There is also an emerging 'moral consciousness', as states who violate these norms are isolated by the international community (Risse Kappen & Sikkink, 1999: 7-11). Frank Schimmelfennig acknowledges rational choice on the part of the target community in a process of socialisation. Here he identifies two actors, the international community and the 'external state' towards which the socialisation process is supposed to be directed. "The external state learns and internalises the community values and norms because it identifies itself with the community, accepts the values and norms as legitimate and regards the community members as role models.' It adopts these norms 'not because it regards them as true and right, but because adoption is necessary

[2] The policy blueprint of using these institutions for stability in the Euro-Atlantic Area is evident in all the official documents from these institutions from NATO's London Declaration in 1990 to the CSCE's Helsinki Document 'Challenges of Change' in 1992. See: NATO The London Declaration, 1990, See *The Charter of Paris for a New Europe* November 1990, December 1990, see also NAA Political Committee *Interim Report of the Working Group on the New Security Order: From Paris to Helsinki, Animating the CSCE*, October 1991 AI 3263, PC/ESC (91) 2, International Secretariat, North Atlantic Assembly; CSCE Helsinki Document, *The Challenges of Change*, July 1992; North Atlantic Council Oslo Final Communique, 4th June 1992, , WEU Council, Petersberg Declaration, Bonn, 19 June 1992. See also Frank Schimmelfennig, 'Introduction' in Ronald Linden (ed.) *Norms and Nannies, The Impact of International Organisations on the Central and Eastern European States,* Rowen Littlefield, Oxfod (2002: 7).

to further its political goals.' (Schimmelfenning, 2000: 117; Acharya, 2004: 239-275). This assumes rationality on the part of the actor which is targeted in a process of socialisation. Schimmelfenning developed his argument by examining the absorption of the Central and European states into Western institutions after the end of the Cold War. This is member state building, different from post conflict state building, as in the case of Bosnia. In both cases norms become *'enablers'* for policy makers. The idea of norms as enablers for policy makers exists in both neo liberal institutionalist and constructivist accounts. Although neoliberal institutionalists and neorealists take interests as a given, and constructivists take norms as basis for interest and identity formation (Wendt, 1992; Moravcsik, 1997). The liberal institutionalist design of the 1990s reinforced by norm diffusion to target states and societies, was driven by the neoliberal and neorealist assumptions of power maximisation and self-preservation as given interests. The safeguarding of those interests is undertaken by defending and promoting a certain liberal order. 'As part of this promotion, the transfusion of externally imposed norms to other regions and countries was the means by which the survival of that of that liberal order was supposedly guaranteed (Aybet, 2000).

The post-cold war return of liberalism and the diffusion of norms in practice and theory were gradually accompanied by a decline in the euphoria surrounding the early 1990s. It became apparent that this was not the end of history, or ideologies or conflict for that matter. It also became clear that the exporting of a type of western based international society to encompass the whole world was not viable. Huntington's doom scenario did not materialise although the rise of non-state actors, the resurgence of Russia and China on the world stage, and the global war on terror were unprecedented challenges for the new liberal order that was in fact essentially a temporary vacuum created after the collapse of the Soviet Union. The biggest challenge to the predominance of a transatlantic core dominated liberal order actually came from within itself: the new ideological struggle between the globalists and the mercantilists. It was at this just juncture of events that COVID-19 hit the world.

A Needs Based World Order After COVID-19

It is hard to predict what kind of an order will emerge or how much damage a global liberal order will sustain after the COVID-19 pandemic. It is hardly over at the time of writing this article and its repercussions are as yet uncertain. However, it is possible to make some predictions as to where we can expect a change in international patterns of cooperation.

At the time COVID-19 became a pandemic, the international system was already in a state of flux. While outside the transatlantic core dominated Western system of institutions and practices, frozen and hot conflicts were rife, the global economy struggled to get back to its previous pace after the 2008 global financial crisis, as international virtual terrorist cells cropped up

in unsuspecting places at unexpected times and then disappeared with dead end trails, and the concepts of security changed from protecting the global commons to securing food supplies. Meanwhile civil wars raged on and instability had a much wider reach than in previous years. A resurgent Russia as a hard power regional player, and China's unnervingly rapid spread of global influence as a trader, investor and leader in technology left the 1990s world of reinstating liberalism at a long distance in the past. Therefore, the world was already going through a transition when COVID-19 emerged. That transition was from a declining liberal world order to another system which is still in the making, one which is referred to as a 'post-Western World.' (Stuenkel, 2017).

The existence of this order always depended on the existence of an 'other'. This usually came in the guise of an ideology. During the Cold War this was communism. After the Cold War the notion of "rogue states" emerged as well as global terrorism. Sometimes unfortunately referred to as "Islamist terrorism" particularly after 9/11. This was in essence all part of the same process since the great ideological struggles of the 20th century: fascism, communism - all against western led liberalism and free market economies. The liberal world order has always relied on an ideological struggle to justify itself. It established itself from the ashes of being a victor over fascism. It rose to the challenge as the main and only contender of communism. It then continued its 'free world" mantle with singling out radicalism. And finally, states that supposedly strayed from its fold were labeled "authoritarian". The academic discourse in a predominantly Western structure of widely accepted publications, institutions and a supportive mainstream media with global outreach enabled these discourses to be widespread. Thus, the 1990s neoliberal discourses followed by the various rigorous studies on norm diffusion all bolstered this labelling. At the beginning of this chaper I pointed out that labels are powerful if endorsed by what is widely accepted as a legitimate core. In this sense, we can say that the dominant transatlantic core and its predominantly western based institutions formed a paradigm of liberal institutionalism that was inspired and derived by American constitutional practices. A system ruled by regulations and institutions had not quite become an international society in English School terms but had become a western security community that operated predominantly through a defensive military alliance that was NATO. In many ways this was the community that Deutsch had envisaged back in 1957. However, Deutsch had envisaged a community of equals with long term expectations of peaceful change, considering that Europe as it was before 1945 was predominantly a state centric war system, correcting itself with the balance of power and perpetual wars. Out of this a society of states and peoples could emerge (Deutsch, 1957). In that sense the EU was a remarkable project. But the reinstated liberal world order of the 1990s was something different. That was the decade that saw the euphoria of victory for the liberal world order, embodied in the various books of the time, in Ikenberry's *After Victory*, Fukuyama"s *End of History* (Ikenberry, 1997; Fukuyama, 1992). It was a moment where American leadership had triumphed and once more the design of World Order had fallen on the shoulders Europe and America. There was

an 'oughtness' in this design, in terms of this is what the world and other states 'ought to be like'. Peace was only the prerogative of those who deserved it – the Western liberal model of democratic states (Doyle 1997). This once again, created a label for the 'other'. That would be any space or country that did not adhere to this grand design. That gave the western security community the right to be regarded as a Gramscian hegemony, one that weilded power not only through finance, economics and military might but also through values and institutions that were widely accepted (Aybet, 2000). The legitimacy of a western security community always depended on the struggle between ideologies, real or constructed, because there always had to be an 'other'.

What became evident 30 years on, was that the "transatlantic core" that is Europe and America, were caught in a time warp of the 1990s. But in actual fact not only was the liberal world order in decline, but the resurgent powers of Russia and China were laying designs of their own. The global economy was shifting and morphing into new supply and value chains. The liberal world order was coming undone. Trust in institutions were wavering. Civil wars and regional instabilities were rising.

In the midst of these changes, a new set of ideological clashes emerged. Ironically, this ideological clash was not between the values and institutions of the western security community on one hand and a force challenging it as its 'other'. This ideological clash was happening inside the western security community itself. It was a battle between those who clung onto the globalist liberal world order and those who reacted to it with mercantilist protectionist policies, often manifesting itself with a support from the far right with racist tendencies. It was at the juncture of this new clash of ideologies that COVID-19 entered the world scene. What COVID-19 has done is it has hurried on the transition that the world order was going through. We will probably see some of these developments already underway unravelling with considerable speed.

We are also likely to see a new kind of nation state on the horizon: a self-help nation state that is self-sufficient in all sectors, less reliant on global supply chains but continues to expand its global trade relations. Therefore, not entirely a mercantilist state but one that is protective of its own national base of production and distribution.

COVID-19 has also forced countries to address the issue of cooperating on a needs-based level. Take the example of the rush to find a vaccination. The unlikeliest candidates are likely to come together, maybe a group of scientists in one country making a deal with a pharmaceutical company in another country. This transcends politics and international relations. These are new opportunities at the time of COVID-19 forcing everyone to think outside the box. Supply and value chains are also likely to be needs driven and will transcend politics and ideologies. On the other hand, countries are likely to divert security and defense to protecting research and development plants, particularly from cyber-attacks.

A Post COVID-19 World is going to force mercantilists to engage more in international cooperation, while forcing liberal globalists to question ideological motives as the sole determinants of international cooperation. Modes of cooperation are more likely to be driven by the desire to survive therefore built on transactions based on basic needs. Contrary to Fukuyama's assertion that liberal democracy is the "end point of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government." in that it has no other ideological competitor, (Fukuyama 1989: 2), this new order to emerge is more likely to be the end point of ideology itself. A new world were ideologies will no longer determine whether an international order ought to be designed or a prevailing one should be preserved. A semblance of order will exist in the international system but only because strands of various result-oriented modes of cooperation will prevail out of necessity rather than a grand design. Such a world order is more likely to operate on all three levels of international relations as put forward by Fred Halliday: inter-state, transnational and systemic (Halliday,1990: 503).

In this new order we are likely to see the return of the state, and therefore a degree of mercantilism but one that is constrained in its mercantilism because it cannot shut out international cooperation, but nevertheless seeks to subvert established modes of cooperation in the international system. A state which would bypass the power centres of globalisation and the institutions which perpetuate these processes. In other words, this leads us to a new model of state or forms of state as Cox defines it, (Cox, 1981: 138) one which seeks to be self-sufficient from the subordination to globalist institutions which dominate its international political and economic relations through conditionality, but at the same time continues to trade globally. Such states will set their own parameters on how they interact with other actors in the global economy.

This new emerging state model will also be different to what Cox imagined as the eventual challengers to the liberal order. Cox predicted that an alternative structure in the international system could come from a neo-mercantilist industrial and national level corporatism at the core. In other words, this neo mercantilism would rise in the transatlantic core. According to Cox, another alternative could be 'counter-hegemonic' forces emerging from the periphery or what was referred to in more general terms as the 'third world'. (Cox, 1981: 150-151) But beyond challenging the transatlantic core based liberal order, these 'counter-hegemonic' populist movements would not have much to offer. What we are seeing now is quite different. Yes, there is a rising neo mercantilism in the core, but COVID-19 is going to force it to become more cooperative on the international level. As to the 'counter-hegemonic' forces, these are more likely to be the self-sufficient but global trader country model that I mentioned above. Therefore, the new order will not be based on the traditional core-periphery division. In fact, the core-periphery relationship will cease to exist. On a more optimistic note, this is likely to become a kinder, more benign system. Perhaps one that Wallerstein envisaged when he rejected the notion of a 'third world'. He stated as early as the 1990s that the liberal

order was in decline and was bound to be replaced by another, but like Cox, his theoretical framework was set within the structure of a core and periphery, with the added space he called semi periphery, referring to the rising powers and emerging economies (Wallerstein, 1982; 1995).

If any semblance of order is to emerge from this alternative needs-based system, it will be an order that grows bottom up through various strands of cooperation that are technical, short term and needs based. Eventually these strands of cooperation may grow to cooperation in higher politics and perhaps even a sense of international society with common bonds. This is an incremental approach based on the theory of functionalism. This is embodied in the work of Mitrany who prescribes linking of authority to a specific activity rather than a state's territory. International organisations become mere facilitators as they carry out administrative tasks, they do not prescribe a sense of 'oughtness' through values and norms, as envisaged by the neoliberals. Functionalism is non-political. It concentrates on 'common needs', "making frontiers meaningless through continuous development of common activities and interests across them." (Mitrany quoted in Aybet 2001: 17). Eventually a community of states or an international society might evolve, but as Mitrany maintains, states will be bound to this community "not through a written act of faith but through organic involvement." (Mitrany, 1966: 42). Therefore international relations theory after COVID-19 will be less concerned with preserving the world as it is, or prescribing the world as it should be, but will most probably try and explain the various non-political, non-ideological strands of international cooperation emerging out of needs not prescribed grand designs.

References

Acharya, A. (2004). How ideas spread: Whose norms matter? Norm localization and institutional change in Asian regionalism. *International organization, 58*(2), 239-275.

Aybet, G. (2000). *A European security architecture after the Cold War. Questions of legitimacy.* St Martin's: Macmillan.

Aybet, G. (1997). *The dynamics of European security cooperation, 1945-91*. Basingstoke: Macmillan.

Bull, H. (1977). *The Anarchical Society: A Study of Order in Politics* London: Macmillan

Burchill, S., & Linklater, A. (1996). *Theories of International Relations,* Deakin University Press.

Carr, E. H. (1946). *The Twenty Years' Crisis 1919-1939 An Introduction To The Study of International Relations*, London: Macmillan.

Cox, R. W. (1981). Social forces, states and world orders: beyond international relations theory. *Millennium, 10*(2), 126-155.

Deutch, K. (1957). *Political Community and the North Atlantic Area,* Princeton

Doyle, M. (1997). *Ways of War and Peace, New York:* W.W. Norton.

Farrell, T. (2001). Transnational norms and military development: Constructing Ireland's professional army. *European Journal of International Relations,* 7(1), 63-102.

Finnemore, M. and Sikkink, K. (1998). International norm dynamics and political change. *International Organization, 52*(4), 887-917.

Fukuyama, F. (1989). The end of history?. *The national interest*, (16), 3-18.

Fukuyama, F. (1992). *The End of History and the Last Man*, Free Press

Grampp, W. D. (1948). Adam Smith and the Economic Man, *Journal of Political Economy*, *56*(4), 315-336

Gramsci, A. (1987). *Selections from the Prison Notebooks,* NY: International Publishers.

Halliday, F. (1990). The pertinence of international relations. *Political Studies, 38*(3), 502-516.

Howard, M. (2008). *War and the Liberal Conscience,* Columbia University Press.

Huntington, S. P. (1996). *The Clash of Civilisations and the Remaking of World Order,* Simon and Schuster.

Ikenberry, J. (2001). *After Victory: Institutions, Strategic Restraint and the Rebuilding of Order After Major Wars*, Princeton.

Kappen, T. R. and Sikkink, K. (1999). The Socialisation of International Human Righst Norms Into Domestic Practices. *The Power of Human Rights* (pp. 1-38). Cambridge University Press.

Klein, B. (1994). *Strategic Studies and World Order: The Global Politics of Deterrence*. Cambridge University Press.

Kuhn, T. S. (1962). *The Structure of Scientific Revolutions*, University of Chicago Press.

Mandelbaum, M. (2002). *The Ideas that Conquered the World*: *Peace, Democracy and Free Markets in the Twenty-First Century*, Public Affairs

Mearsheimer, J. (1994-1995). The False Promise of International Institutions, *International Security, 19*(3), 5-49

Mitrany, D. (1966). *A Working Peace System,* Chicago: Quadrangle Books.

Moravcsik, A. (1997). Taking Preferences Seriously: A Liberal Theory of International Politics, *International Organization, 51*(4), 513-553.

Morgenthau, H. (1985). *Politics Among Nations*, Knof Random House.

Schimmelfenning, F. (2000). International Socialisation in the New Europe: Rational Action in an Institutional Environment, *European Journal of International Relations, 6*(1), 109-139.

Steunkel, O. (2017) *Post Western World* John Wiley & Sons.

Von Clausewitz, C. (2007). *On War,* Oxford University Press.

Wallterstein, I. and Hopkins, T. (1982). *World Systems Analysis: Theory and Methodology,* Berverly Hills: Sage.

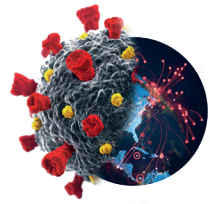
Wallerstein, I. (1995) *After Liberalism* New York: New Press.

Waltz, K. N. (1990). Realist thought and neorealist theory. Journal of *International Affairs, 44*(1), 21-37.

Watson, A. (1987). Hedley Bull, states systems and international societies. *Review of International Studies, 13*(2), 147-153.

Wendt, A. (1992). Anarchy is What States Make of It, *International Organization*, *46*(2), 391-425.

Wight, M. (1966). Western Values in International Relations. *Diplomatic Investigations: Essays in the Theory of International Politics* (pp. 89-131), Oxford University Press.



Comparative Politics of the Coronavirus Pandemic

Şener Aktürk

Assoc. Prof. Şener Aktürk

TÜBA-GEBİP Member Sener Akturk is a scholar of comparative politics broadly defined, with a focus on comparative politics of ethnicity, religion, and nationalism, especially in Germany, Russia, and Turkey. He developed the typology of three "regimes of ethnicity" (monoethnic, antiethnic, and multiethnic), and a theory of "ethnic regime change" in his book, Regimes of Ethnicity and Nationhood in Germany, Russia, and Turkey (Cambridge University Press, 2012), which received the 2013 Joseph Rothschild book prize. While writing on German, Russian, and Turkish politics primarily, Akturk has also published on identity politics in Afghanistan, Algeria, Austria, Greece, Iran, Israel, Pakistan, and Central Asia. He is currently working on a handbook on state policies toward ethnic and religious diversity in 172 countries with a population over quarter million, which is the result of a global expert survey he conducted on fifteen state policies around the world between 2010 and 2014. He is also working on several projects related to religion and nationalism; the representation of Muslim minorities in European politics; Jewish intellectuals' contributions to Turkish nationalism; and the political consequences of Greek-Turkish population exchange.

Comparative Politics of the Coronavirus Pandemic[1]

Şener Aktürk,
Koç University
sakturk@ku.edu.tr

Abstract
From testing the resilience of countries with different political regimes and religious cultural traditions to the possibility of bringing world peace and economic equality, the world-historical significance and potential consequences of the coronavirus pandemic are topics of considerable speculation from a comparative perspective. The political, economic and social consequences of the coronavirus pandemic are numerous and still unfolding. Much of the analyses depend on which countries will survive the pandemic with comparatively fewer fatalities per capita and a smaller contraction of their economies. Such economic and demographic outcomes will likely facilitate or perhaps accelerate wider domestic political and societal, but also international transformations.

Keywords
COVID-19 pandemic, comparative politics, state capacity, healthcare systems

[1] An earlier version of this work, titled, "After the Deluge: Comparative Politics of the Coronavirus Pandemic," was published by *TRT Research Centre* and is available at <https://researchcentre.trtworld.com/images/files/policy_briefs/After-the-Deluge-policy-outlook-_-Final.pdf>. It was revised and updated by the author for the current publication, including the addition of a complete Bibliography.

Introduction

If we take March 12th, 2020, the day the World Health Organization (WHO) declared the coronavirus (COVID-19) outbreak to be a pandemic (World Health Organization, 2020), we have entered the fourth month of what appears to be the first globally experienced pandemic that has been captured and covered, almost synchronously, around the world. This is certainly not the first, and unfortunately extremely unlikely to be the last, deadly pandemic in human history. As of June 25th, 2020, the coronavirus pandemic is reported to have killed approximately 483,000 people around the world (Times Leader, 2020). From the Black Death of the 14th century to the Spanish Flu of the 20th century (Şeker et al., 2020), many other historic pandemics killed far larger a proportion of the world's population than the coronavirus is likely to kill.

There are nonetheless several peculiarities of the coronavirus pandemic, which might lead to greater transformations in domestic and international politics than those triggered by previous pandemics in the modern age such as HIV/AIDS or the Spanish Flu. The most immediate difference is the instantaneous global media coverage and the concomitant battle for interpreting the unfolding of the pandemic. Not a day passes without speculation about grandiose political and world-historical transformations the pandemic might trigger, although commentators differ greatly on what those transformations might be.

Democracy or Authoritarianism?

Among the first questions many observers asked following the recognition of the coronavirus outbreak as a pandemic is captured in one of the numerous comparative research projects that took off almost simultaneously with the pandemic: "Will democracy doom us or save us?" (Binghamton University,

2020). The question as to whether democratic or authoritarian regimes are more successful in dealing with disasters has attracted significant attention from scholars over many decades. In fact, the claim that democracies are far better in fighting disasters (Smith & Flores, 2010) ranging from earthquakes to epidemics (Economist, 2020a) is very commonly accepted, and thus this argument quickly resurfaced (Berengaut, 2020) in the discussions around the coronavirus pandemic. Some may, and already do, view the coronavirus pandemic as an opportunity to test the hypothesized linkage between democracy and disaster prevention around the world. Despite the purported advantage of democracies against autocracies, however, some observers also feared and speculated that the coronavirus pandemic might erode democratic regimes (Bieber, 2020) including in the United States (Diamond, 2020).

There is also the opposite, albeit less popular, argument that authoritarian regimes might be more successful in fighting natural as well as man-made disasters, including climate change (Economist, 2019). The purported success of the highly authoritarian, if not totalitarian, Chinese regime in fighting coronavirus, which the regime actively employed in a global public relations campaign (Chia, 2020), worried Western democracies, triggering publications and research projects meant to investigate whether "authoritarian or democratic countries handle pandemics better." (Kleinfeld, 2020). There is also research suggesting that some natural disasters, such as major storms, "deteriorate democratic conditions" and create "oppressive governments," (Transform, 2019) but there is also preliminary research that suggests the opposite (Gingerich & Vogler, 2020). Finally, there is also a more convincing claim that disease epidemics often lower economic inequality across history (Scheidel, 2018), which might also support a more consensual form of government to the extent that lower inequality increases the bargaining power of the average citizen. Without passing any judgment on whether the evidence amassed on either side is conclusive or not, it is fair to say that there is no consensus on the answer to this question as of yet.

At this early stage of the pandemic, there is no discernible pattern of a democratic or authoritarian advantage in terms of cross-national fatality figures linked to the coronavirus. For example, among the four countries that were hit hardest in the first wave of the pandemic in March 2020, two of them are undoubtedly authoritarian polities (China and Iran), whereas the other two are almost universally considered to be consolidated democracies (Italy and Spain). Moreover, among these four, the democratic countries reportedly had much higher fatality rates per capita than the non-democratic ones, although there is reason to the suspect that China (Arciga, 2020; BBC, 2020; Hanson et al., 2020) and Iran (Wood, 2020) may have deliberately reported lower than actual fatality figures, with two studies arguing that the coronavirus cases in China may have been four times (Davidson and Beaumont, 2020) or thirty-seven times (Hanson et al., 2020) official figure, suggesting a magnitude of falsification that is not possible in an even minimally open or semi-democratic country with a competitive political regime.

State Capacity and Healthcare Systems

Beyond the popular debate over the effect of regime type in disaster management, the coronavirus pandemic is likely to rekindle another long-lasting, albeit a somewhat more academic and technocratic debate on the measurement and impact of state capacity. For many decades now, some have argued that what matters more in explaining the variation in states' ability to achieve their goals is not their regime type but their infrastructural capacity and institutional design. Samuel Huntington's famous book, *Political Order in Changing Societies* (Huntington, 1968), published more than fifty years ago at the height of the Cold War, begins with the following crisp statement: "The most important political distinction among countries concerns not their form of government but their degree of government." There are many debates and disagreements about how exactly one can measure state capacity. "State capacity is a quality conspicuous both in its absence and presence but difficult to define," as Cullen Hendrix stated in his work on different measurements of state capacity, including no less than "15 different operationalisations of state capacity" (Hendrix, 2010). For example, [the] ability to successfully collect taxes (e.g., tax revenue as a percentage of GDP) and the ability to conscript soldiers are among the common measurements of state capacity.

It might be considered common sense to think that greater state capacity would result in a more effective fight against the coronavirus pandemic. However, even if true, this proposition alone hardly provides a clear-cut measurement of state capacity. Relatedly, which dimension of state capacity makes the most difference in fighting an epidemic is unclear. Does the existence of a large conscript army, one of the common proxy measurements for military capacity, and/or the success in collecting a larger share of taxes matter more in fighting the coronavirus? With the exception of healthcare capacity, which I briefly discuss below, there is no definitive answer regarding whether and which other dimensions of state capacity would make a remarkable difference in fighting the coronavirus pandemic, let alone a clear recipe for augmenting relevant aspects of state capacity.

Healthcare systems are readily recognised as one of the most important aspects of state capacity as it relates to anti-coronavirus efforts (Cherkaoui, 2020). The cross-national variation in terms of capacity, ownership, provision, and regulation of healthcare around the world, including in the advanced industrialised Western polities most affected by the pandemic, namely, France, Italy, Spain, and the United States, is significant. As critically reviewed by Tarek Cherkaoui (2020), this variation is not primarily a result of variation in healthcare expenditure. For example, the United States spent more than three times as much on health per capita ($10,586) than Spain ($3,323) in 2018, and yet both Spain and the United States had 2.4 acute care hospital beds per 1,000 people in 2017. In short, spending vastly more money on health per capita does not necessarily guarantee higher healthcare capacity. Some countries provide healthcare benefits primarily or exclusively through public health care systems, whereas some provide them primarily through

private insurance schemes, and yet many others offer a combination of public and private healthcare schemes. Then there are the institutional legacies of the past such as the "network of health centres formed by the Soviet Union in the 1920s" to fight the bubonic plague, which may now support efforts to fight the coronavirus in about half a dozen post-Soviet states including Russia, as reported by the New York Times (Kramer, 2020). In short, the coronavirus pandemic provides a global test of the comparative advantages, disadvantages, and efficacy of various private and public healthcare systems. Nonetheless, state capacity and healthcare infrastructure are not the only factors that factor into the struggle against the coronavirus; societal norms and hygiene practices may also play an important role.

Do Confucian, Islamic, or Scandinavian norms help in the fight against coronavirus?

What if rather than, or at least in addition to, state capacity and more specifically healthcare infrastructure, other societal features provide a comparative advantage to some countries over others in their fight against the coronavirus? For example, South Korea is widely praised as being among the most successful countries in containing the spread of coronavirus early on, and minimising coronavirus related fatalities as a result (McCurry, 2020). Similarly, Vietnam is often cited and discussed as another success story in terms of its response to the coronavirus pandemic (Vu & Tran, 2020). Likewise, Taiwan's success has been recognised and arguably advanced because of its geopolitical and symbolic significance as the democratic alternative to Beijing's public relations campaign presenting itself as a model for fighting the pandemic (Kim, 2020). In addition to these three, Japan, Hong Kong, and Singapore, each with a different political system, have all been discussed as success stories, prompting many reporters to ask what lessons can be drawn from the East Asian experience in containing the coronavirus (Martin & Khan, 2020).

The perception and/or reality of East Asian countries' success in fighting coronavirus, regardless of their very different political and economic systems and geopolitical orientations, led some observers to suggest differences in cultural and religious traditions, specifically Confucianism, that purportedly gave East Asian countries an advantage over Western countries.

> *"Lee Sung-Yoon, an international relations professor at Tufts University, said traditions of Confucianism in countries like China, South Korea, and Singapore gave 'the paternalistic state a freer hand in exercising authority' during an emergency… Mr Lee said the use of tracking bracelets to enforce the coronavirus quarantine in Hong Kong and South Korea would likely not be tolerated in Italy or Sweden." (Zhou, 2020).*

In various early comparisons of East (Asia) versus Western Europe, the "Confucian emphasis on respect for authority [and] social stability" was noted

(Martin and Walker, 2020), and Bruno Maçaes (2020) suggested in this vein that one witnesses "the clash of civilizations" in East Asian and Western reactions to the coronavirus pandemic. More specifically, after identifying "Singapore, Taiwan, Hong Kong and South Korea" as "the most successful societies in tackling COVID-19 through social distancing and similar suppression measures," Greg Sheridan (2020) singles out the Western tradition of "civil disobedience" as the main cultural factor underlying alleged Western failure in combatting the coronavirus. *The Economist* (2020b) likewise identified "privacy" as "the EU's unofficial religion," which it argued is now being challenged by governmental measures against the pandemic. However, many others strongly disagree with the claim that Confucian religious-cultural values, such as obedience to authority, are responsible for the purported success of East Asia in containing the pandemic (Leonard, 2020; Park, 2020).

There is also a popular version of the religious-cultural values argument among Muslims, although less noted in the Western media. American Muslim academic and activist Khaled Beydoun (2020) tweeted that "the whole world is imposing 'Sharia Law' without even knowing it" in response to various measures taken to fight against the pandemic, such as "continual washing of hands, zero-interest loans, limited touching, use of bidets, helping the poor financially." Likewise, in response to an Islamophobic tweet about the dangers of Muslim immigration to the United States, Johana Bhuiyan (2020) of the *Los Angeles Times* noted that "everyone's washing their hands five times a day", "covering their face", "not shaking hands," and "avoiding bars" to protect against the coronavirus, and quipped that "you're all Muslim" in a tweet that got more than 35 thousand retweets and 180 thousand likes. In a similar vein, Craig Considine (2020) wrote in *Newsweek:* "Do you know who else suggested good hygiene and quarantining during a pandemic? Muhammad, the prophet of Islam, over 1,300 years ago."

Other practices common amongst Muslims, such as not entering the house with your shoes on, became more widespread and/or recommended as a protective measure (Kızılkaya, 2020). Also, practices that are specific to some Muslim countries such as the use of Ottoman-era colognes as hand sanitizers have been noted for their role in the fight against coronavirus (Scatena, 2020). Given these developments, Murat Sofuoglu (2020) of TRT World summarized the hopeful mood among many Muslims by asking whether "Islam's emphasis on hygiene make a difference in a pandemic." At the same time, some other observers, such as Ozan Demircan (2020) of Germany's *Handelsblatt* suggested more recent phenomena such as digitalisation, online shopping, and social media usage to explain why Turks have been rather successful in "social distancing."

Confucian values and Islamic hygiene were not the only religious-cultural norms that have been emphasised as providing an advantage in fighting against the coronavirus pandemic. Scandinavian, more specifically Swedish, norms were also suggested as already providing the necessary "social distancing"

recommended to prevent the spread of the coronavirus. Swedish journalist Lisa Bjurwald (2020) wrote in this vein: "skype-based relationships? No hugging? For Swedes, that's not social distancing. That's just life." As such, Bjurwald maintained, "we were practising the coronavirus lifestyle long before the virus hit." Such a coronavirus-compatible Swedish lifestyle is at least in part a result of Sweden's large territory, low population density, and dispersed settlement, as Bjurwald noted, and all of these factors, cultural, demographic, and geographic, may have played a role in Sweden not adopting as strict political-administrative measures to enforce social isolation as some other European countries. On the other hand, the fact that Sweden recorded a much higher infection and death rate per capita than all of its Nordic neighbors so far can be interpreted as preliminary evidence disconfirming the alleged advantage of the Swedish way of life in the fight against the coronavirus pandemic. In short, many commentators made arguments suggesting that Confucian, Islamic, and/or Scandinavian (perhaps more generally Lutheran) cultural values and lifestyle may provide advantages in fighting the coronavirus. Similar to the arguments based on political regime type, state capacity, and healthcare systems mentioned above, only time will tell whether any of these religious-cultural arguments will be confirmed or disconfirmed as the cross-national variation in coronavirus-related fatalities takes shape in the coming months.

Social Distancing, Herd Immunity, or Local and National Quarantines?

Countries cannot radically overhaul their healthcare systems or state capacity overnight, let alone change their religious and cultural traditions, while facing an ongoing pandemic. That is why much of the heated discussion once the pandemic was well underway focused on the ideal policy response(s) governments should adopt to effectively contain the infection and minimise fatalities.

In a popular op-ed and simulation that appeared in the *Washington Post* and contributed to the global popularity of the epidemic-related idiom, "flatten the curve," Harry Stevens (2020) argued that among four different potential approaches to the coronavirus pandemic, which he labelled as a free-for-all, attempted quarantine, moderate distancing, and extensive distancing, the two forms of social distancing appear to be the more successful in simulations, with "extensive [social] distancing" being the best method in limiting the number and peak of the infections.

In the critical early days of the epidemic, however, many policy-makers in the Western and especially the Anglo-American world, most notably and explicitly in the United Kingdom, seemed to advocate a policy that came to be known as "herd immunity." The policy aiming to reach "herd immunity" as soon as possible most closely resembles the "free-for-all" scenario in Harry Stevens' simulations mentioned above. The discussion of this approach was widely

criticised as a major health policy debacle (Yong, 2020), and the UK government was later reported to have backed off from this plan (O'Grady, 2020).

Another policy option that became rapidly popular, if not hegemonic as the coronavirus spread exponentially in many parts of the world, has been quarantines of various scales, also known as "lockdowns," ranging from very local to regional to national. Local or regional quarantines have been implemented in several places early on, most notably in Wuhan and other cities in Hubei province on January 23, 2020 (Wikipedia, 2020a). Italy also imposed local lockdowns in late February 2020 "covering eleven municipalities of the province of Lodi in Lombardy, and affecting around 50,000 people." (Wikipedia, 2020b) However, by March 8th, much of Northern Italy was placed under a lockdown affecting approximately 16 million people, and within two days after that, a national quarantine was announced, the first of its kind at the national level during the coronavirus pandemic (Wikipedia, 2020c).

The relative merits and demerits of different approaches and policies have been the topic of the most heated debates. While lockdowns and extensive measures of social distancing appear to have slowed the increase in the rate of fatalities and hence helped to "flatten the curve" almost everywhere they were implemented, critics of lockdowns or extreme measures of social distancing argue that the economic downturn that such measures will lead to is likely to result in as many, if not more fatalities, than the coronavirus pandemic otherwise would in some of these countries. Many policy-makers, who are obliged to take both sets of considerations very seriously, have sought to balance these risks by imposing the optimal amount of quarantines and social distancing measures while simultaneously allowing as much economic activity (production, consumption, distribution, etc.) as possible.

After the Deluge

Many commentators speculate that the coronavirus pandemic will trigger momentous political, economic, and social transformations, although they differ vastly on the direction and content of what those transformations might be. However, more comparative historical oriented scholars have already provided some useful patterns. One such pattern noted above is the tendency of epidemics to lower economic inequality (Scheidel, 2018), in part by making capable workforce scarcer, and hence increasing the bargaining power of employees against employers. On another positive note, based on historical patterns, Barry Posen argues that in general, "sickness slows the march to war" among all parties involved and it is very much possible "that the coronavirus crisis will last long enough to change the world in important ways, some of which will likely dampen the appetite for conflict for some time—perhaps up to five or ten years." (Posen, 2020) Thus, adopting these optimistic interpretations of the likely consequences of the pandemic, after the deluge, the survivors may reasonably expect to live in a more equal and peaceful world.

It would be reasonable to assume that a significant increase in the bargaining power of workers and ordinary citizens would be accompanied by a more vocal demand for free and universal healthcare provision in countries where this does not already exist. However, all good things do not necessarily go together, and it is not possible to know whether free and universal healthcare provision would be a benefit provided as part of a responsive democratic political platform or a benefit accompanied by an increasingly intrusive authoritarian state.

The aftermath of the coronavirus pandemic might also witness an increased demand for residential dispersion away from overcrowded urban city centres, especially in East Asia, Western Europe, and North America, which have had some of the highest rates of fatalities. Residential dispersion in and of itself might not necessarily be a negative development, however, if it is accompanied by more voluntary isolation, such a trend may lead to a further decline of civil society and social capital, which was already very low in some regions (Howard, 2003) and/or declining for decades in others (Putnam, 2000). Furthermore, the coronavirus pandemic may exacerbate centuries-old religious, sectarian, and racial exclusions that have been central to the political, economic, and cultural order in Europe and the Americas (Aktürk, 2020). Another common societal pattern following pandemics in history has been the rise of messianic and millenarian sects, which include religious-spiritual cults but also secular revolutionary movements (Slezkine, 2017).

There are also more specific geopolitical developments that were already underway, which the coronavirus pandemic might accelerate. One such development concerns the future of the European Union, and the other concerns the future of China, both developments being critical to the future structure of the international system and balance of power. In the view of some scholars, such as Wolfgang Streeck (2019), the European Union was already "a liberal empire [that] is about to fall" due to Brexit. If anything, the coronavirus pandemic has augmented demands for exiting the European Union in the member states hardest hit by the disease. Italy is a prime example of this phenomenon. According to Elis Gjevori (2020), a "new poll in Italy already shows the political impact the coronavirus is having on Italy and their relationship with the EU with 88 per cent saying that the 'EU is not helping us'," and "Germany and France are condemned by other EU member states for blocking the export of medical supplies, raising alarm among smaller countries hit by coronavirus" (Wynne, 2020). In short, many among the elites and the masses perceive the unfolding of the coronavirus pandemic as a test for European solidarity that EU member states have failed.

The coronavirus pandemic is widely expected to have significant economic repercussions as well. If anything, the coronavirus pandemic has augmented fears in the West of a coming Chinese hegemony. In this vein, David Wallace-Wells (2020) asked whether the coronavirus is "ushering in a Chinese future" while Patrick Wintour (2020), the Diplomatic Editor of the *Guardian* while discussing the "winners and losers in new world order" shaped by the

pandemic, similarly worried about "state responses to the virus shifting the balance of power between China and the West." From a more strictly economic point of view, David Kelly, Chief Global Strategist at JP Morgan Asset Management, claimed that "the overall outlook for East Asia is quite good relative to other regions of the world… in economic terms and probably in market terms in the second half of 2020" compared to "other regions slammed by the coronavirus." (Huang, 2020) There certainly was an anticipation of China's rise to regional if not global hegemony among many analysts before the coronavirus (Mearsheimer, 2001; Mearsheimer, 2018), but the pandemic seems to have triggered a more open discussion of this prospective. However, the fact that the pandemic began in China, leading to accusations by many leading figures around the world that China failed to alert other countries in time or prevent international flights from Hubei to prevent the global spread of the coronavirus, might have significantly eroded any soft power China had accumulated over the years.

The political, economic, and social consequences of the coronavirus pandemic are numerous and still unfolding. Much depends on which countries will survive the pandemic with comparatively fewer fatalities per capita and a smaller contraction of their economies. Such economic and demographic outcomes will likely facilitate or perhaps accelerate wider domestic political, societal, and international transformations.

References

Aktürk, Ş. (2020). Comparative Politics of Exclusion in Europe and the Americas: Religious, Sectarian, and Racial Boundary Making since the Reformation. *Comparative Politics*, 52(4), 695-719. doi:10.5129/001041520X15786939438699

Arciga, J. (2020). U.S. Intelligence Concludes China's Coronavirus Numbers Are Fake: Report. *Daily Beast*, April 1, 2020. Retrieved June 25, 2020 (https://www.thedailybeast.com/us-intelligence-concludes-chinas-coronavirus-numbers-are-fake-bloomberg-reports).

BBC. (2020). Coronavirus: Why China's claims of success raise eyebrows. *BBC News*, April 7, 2020. Retrieved June 25, 2020 (https://www.bbc.com/news/world-asia-china-52194356).

Berengaut, A. A. (2020). Democracies Are Better at Fighting Outbreaks. *The Atlantic*, February 24, 2020. Retrieved June 25, 2020 (https://www.theatlantic.com/ideas/archive/2020/02/why-democracies-are-better-fighting-outbreaks/606976/).

Beydoun, K. (2020). Tweet, March 20, 2020. Twitter status https://twitter.com/KhaledBeydoun/status/1240930688712560642

Bhuiyan, J. (2020). Tweet, April 2, 2020 Twitter status https://twitter.com/JMBooyah/status/1245537894732726273

Bieber, F. (2020). Authoritarianism in the Time of the Coronavirus. *Foreign Policy*, March 30, 2020. Retrieved June 25, 2020 (https://foreignpolicy.com/2020/03/30/authoritarianism-coronavirus-lockdown-pandemic-populism/).

Binghamton University. (2020). COVID-19: Will Democracy Doom Us or Save Us?. Retrieved June 24, 2020 (https://www.binghamton.edu/political-science/covid-response/corona/index.html).

Bjurwald, L. (2020). Social distance, Swedish style. *Politico*, March 30, 2020. Retrieved June 25, 2020 (https://www.politico.eu/article/social-distance-swedish-style/).

Cherkaoui, T. (2020). Under the Weather: Healthcare Systems in an Age of Pandemics. *TRT World Research Centre Policy Outlook*. Retrieved June 25, 2020 (https://researchcentre.trtworld.com/images/files/policy_briefs/Under-the-Weather.pdf).

Chia, J. (2020). The Message Behind China's Insta-Hospital. *The Diplomat*. February 6, 2020. Retrieved June 25, 2020 (https://thediplomat.com/2020/02/the-message-behind-chinas-insta-hospital/).

Considine, C. (2020). Can the Power of Prayer Alone Stop a Pandemic like the Coronavirus? Even the Prophet Muhammad Thought Otherwise. *Newsweek*, March 17, 2020. Retrieved June 25, 2020 (https://www.newsweek.com/prophet-prayer-muhammad-COVID-19-coronavirus-1492798).

Davidson, H., and Beaumont, P. (2020). China coronavirus cases may have been four times official figure, says study. *Guardian*. April 23, 2020. Retrieved June 25, 2020 (https://www.theguardian.com/world/2020/apr/23/china-coronavirus-cases-might-have-been-four-times-official-figure-says-study).

Demircan, O. (2020). Warum Türken gut auf "Social Distancing" eingestellt sind. *Handelsblatt*, March 28, 2020. Retrieved June 25, 2020 (https://app.handelsblatt.com/politik/weltgeschichten/weltgeschichte-warum-tuerken-gut-auf-social-distancing-eingestellt-sind/25691722.html).

Diamond, L. (2020). America's COVID-19 Disaster Is a Setback for Democracy. *The Atlantic*, April 16, 2020. Retrieved June 25, 2020 (https://www.theatlantic.com/ideas/archive/2020/04/americas-COVID-19-disaster-setback-democracy/610102/).

Economist, The. (2019). Are dictatorships better than democracies at fighting climate change?. *The Economist*, September 21, 2019. Retrieved June 25, 2020 (https://www.economist.com/asia/2019/09/21/are-dictatorships-better-than-democracies-at-fighting-climate-change).

Economist, The. (2020a). Diseases like COVID-19 are deadlier in non-democracies. *The Economist*, February 18, 2020. Retrieved June 25, 2020 (https://www.economist.com/graphic-detail/2020/02/18/diseases-like-COVID-19-are-deadlier-in-non-democracies).

Economist, The. (2020b). Privacy in a pandemic: Coronavirus is the first trial of the EU's unofficial religion. *The Economist*, April 23, 2020. Retrieved June 25, 2020 (https://www.economist.com/europe/2020/04/23/privacy-in-a-pandemic).

Gingerich, D., and Vogler, J. (2020). Pandemics and Political Development: The Electoral Legacy of the Black Death in Germany. *APSA Preprints*. doi: 10.33774/apsa-2020-2c2fm-v4

Gjevori, E. (2020). Coronavirus: European nations choose self-preservation over the Union. *TRT World*, March 18, 2020. Retrieved June 25, 2020 (https://www.trtworld.com/magazine/coronavirus-european-nations-choose-self-preservation-over-the-union-34677).

Hanson, R., Mouton, C. A., Grissom, A. R., & Godges, J. P. (2020). COVID-19 Air Traffic Visualization: A New Tool Helps Analyze Commercial Air Travel Involving Infected Passengers. *RAND Corporation Research Reports*. doi:10.7249/RRA248-1 Retrieved June 25, 2020 (https://www.rand.org/pubs/research_reports/RRA248-1.html).

Hendrix, C. (2010). Measuring state capacity: Theoretical and empirical implications for the study of civil conflict. *Journal of Peace Research*, 47(3), 273-285.

Howard, M. M. (2003). *The Weakness of Civil Society in Post-Communist Europe*. Cambridge University Press.

Huang, E. (2020). East Asia outlook is 'quite good' relative to other regions slammed by coronavirus, JPMorgan says. *CNBC*, April 16, 2020. Retrieved June 25, 2020 (https://www.cnbc.com/2020/04/16/jpmorgan-east-asia-outlook-better-than-other-regions-hit-by-coronavirus.html).

Huntington, S. P. (1968). *Political Order in Changing Societies*. Yale University Press.

Kızılkaya, M. (2020). Kapının önündeki ayakkabılar! *Habertürk*, April 8, 2020. Retrieved June 25, 2020 (https://www.haberturk.com/yazarlar/muhsin-kizilkaya-2291/2638982-kapinin-onundeki-ayakkabilar).

Kim, J. (2020). Taiwan's Success Is the Bane of Beijing's Global Coronavirus Propaganda. *The Diplomat*, April 8, 2020. Retrieved June 25, 2020 (https://thediplomat.com/2020/04/taiwans-success-is-the-bane-of-beijings-global-coronavirus-propaganda/).

Kleinfeld, R. (2020). Do Authoritarian of Democratic Countries Handle Pandemics Better?. *Carnegie Endowment for International Peace*, March 31, 2020. Retrieved June 25, 2020 (https://carnegieendowment.org/2020/03/31/do-authoritarian-or-democratic-countries-handle-pandemics-better-pub-81404).

Kramer, A. E. (2020). How Bubonic Plague Has Helped Russia Fight the Coronavirus. *New York Times*, April 15, 2020. Retrieved June 25, 2020 (https://www.nytimes.com/2020/04/15/world/europe/coronavirus-plague-russia-soviet-union.html).

Leonard, A. (2020). Taiwan Is Beating the Coronavirus. Can the US Do the Same? *Wired*, March 18, 2020. Retrieved June 25, 2020 (https://www.wired.com/story/taiwan-is-beating-the-coronavirus-can-the-us-do-the-same/).

Maçaes, B. (2020). Coronavirus and the Clash of Civilizations. *National Review*, March 10, 2020. Retrieved June 25, 2020 (https://www.nationalreview.com/2020/03/coronavirus-and-the-clash-of-civilizations/).

Martin, T. W., and Khan, N. (2020). Asia's Lessons for Corralling Coronavirus? 'Act Fast'. *Wall Street Journal,* May 7, 2020. Retrieved June 25, 2020 (https://www.wsj.com/articles/for-asia-risks-from-novel-coronavirus-werent-so-novel-11588781140).

Martin, T. W., and Walker, M. (2020). East vs. West: Coronavirus Fight Tests Divergent Strategies. *Wall Street Journal*, March 13, 2020. Retrieved June 25, 2020 (https://www.wsj.com/articles/east-vs-west-coronavirus-fight-tests-divergent-strategies-11584110308).

McCurry, J. (2020). Test, trace, contain: how South Korea flattened its coronavirus curve. *Guardian*, April 23, 2020. Retrieved June 25, 2020 (https://www.theguardian.com/world/2020/apr/23/test-trace-contain-how-south-korea-flattened-its-coronavirus-curve).

Mearsheimer, J. J. (2001). *The Tragedy of Great Power Politics*. W. W. Norton.

Mearsheimer, J. J. (2018). *The Great Delusion: Liberal Dreams, International Realities*. Yale University Press.

O'Grady, C. (2020). The U.K. backed off on herd immunity. To beat COVID-19, we'll ultimately need it. March 20, 2020. Retrieved June 25, 2020 (https://www.nationalgeographic.com/science/2020/03/uk-backed-off-on-herd-immunity-to-beat-coronavirus-we-need-it/).

Park, S. N. (2020). Confucianism Isn't Helping Beat the Coronavirus. *Foreign Policy*, April 2, 2020. Retrieved June 25, 2020 (https://foreignpolicy.com/2020/04/02/confucianism-south-korea-coronavirus-testing-cultural-trope-orientalism/).

Posen, B. R. (2020). Do Pandemics Promote Peace? Why Sickness Slows the March to War. *Foreign Affairs*, April 23, 2020. Retrieved June 25, 2020 (https://www.foreignaffairs.com/articles/china/2020-04-23/do-pandemics-promote-peace).

Putnam, R. (2000). *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.

Scatena, J. (2020). Turkey's unique hand-sanitising method. *BBC,* April 8, 2020. Retrieved June 25, 2020 (http://www.bbc.com/travel/story/20200407-turkeys-unique-hand-sanitiser).

Scheidel, W. (2018). *The Great Leveler: Violence and the History of Inequality from the Stone Age to the Twenty-First Century*. Princeton University Press.

Sheridan, G. (2020). The West's civil disobedience—it's a trend to die for. *The Australian*, March 25, 2020. Retrieved June 25, 2020 (https://www.theaustralian.com.au/commentary/coronavirus-the-wests-civil-disobedience-its-a-trend-to-die-for/news-story/cec21a178a549c53e94bfc7e2433df37).

Slezkine, Y. (2017). *The House of Government: A Saga of the Russian Revolution*. Princeton University Press.

Smith, A., and Flores, A. F. (2010). Why Natural Disasters Rock Democracies Less. *Foreign Affairs*, July 15, 2010. Retrieved June 25, 2020 (https://www.foreignaffairs.com/articles/2010-07-15/disaster-politics).

Sofuoğlu, M. (2020). Could Islam's emphasis on hygiene make a difference in a pandemic?. *TRT World*, April 16, 2020. Retrieved June 25, 2020 (https://www.trtworld.com/magazine/could-islam-s-emphasis-on-hygiene-make-a-difference-in-a-pandemic-35469).

Stevens, H. (2020). Why outbreaks like coronavirus spread exponentially, and how to "flatten the curve." *Washington Post,* March 14, 2020. Retrieved June 25, 2020 (https://www.washingtonpost.com/graphics/2020/world/corona-simulator/).

Streeck, W. (2019). The European Union is a liberal empire, and it is about to fall. *LSE Blog*, March 6, 2019. Retrieved June 25, 2020 (https://blogs.lse.ac.uk/brexit/2019/03/06/long-read-the-european-union-is-a-liberal-empire-and-it-is-about-to-fall/).

Şeker, M., Özer, A., Tosun, Z., Korkut, C., & Doğrul, M. (Ed.). (2020). *COVID-19 Küresel Salgın Değerlendirme Raporu*. Turkish Academy of Sciences.

Times Leader. (2020). CoronaVirus RealTime Infections Map. Retrieved June 24, 2020 (https://www.timesleader.com/interactives/775866/coronavirus-active-infections-map).

Transform. (2019). Natural disasters creating oppressive governments, new study finds. *Transform*, August 7, 2019. Retrieved June 25, 2020 (https://transform.iema.net/article/natural-disasters-creating-oppressive-governments-new-study-finds).

Vu, M., and Tran, B. T. (2020). The Secret to Vietnam's COVID-19 Response Success. *The Diplomat*, April 18, 2020. Retrieved June 25, 2020 (https://thediplomat.com/2020/04/the-secret-to-vietnams-COVID-19-response-success/).

Wallace-Wells, D. (2020). Is Coronavirus Ushering in a Chinese Future? *Intelligencer*, April 16, 2020. Retrieved June 25, 2020 (https://nymag.com/intelligencer/2020/04/china-and-coronavirus-a-glimpse-of-our-future.html).

Wikipedia. (2020a). COVID-19 pandemic lockdown in Hubei. Retrieved June 25, 2020 (https://en.wikipedia.org/wiki/2020_Hubei_lockdowns).

Wikipedia. (2020b). COVID-19 pandemic lockdown in Italy. Retrieved June 25, 2020 (https://en.wikipedia.org/wiki/COVID-19_pandemic_lockdown_in_Italy).

Wikipedia. (2020c). National responses to the COVID-19 pandemic. Retrieved June 25, 2020 (https://en.wikipedia.org/wiki/National_responses_to_the_COVID-19_pandemic).

Wintour, P. (2020). Coronavirus: Who will be winners and losers in new world order. *Guardian,* April 11, 2020. Retrieved June 25, 2020 (https://www.theguardian.com/world/2020/apr/11/coronavirus-who-will-be-winners-and-losers-in-new-world-order).

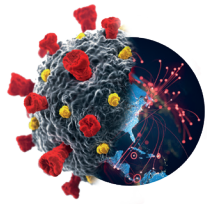
Wood, G. (2020). Iran Has Far More Coronavirus Cases Than It Is Letting On. *The Atlantic*, March 9, 2020. Retrieved June 25, 2020 (https://www.theatlantic.com/ideas/archive/2020/03/irans-coronavirus-problem-lot-worse-it-seems/607663/).

World Health Organization. (2020). WHO announces COVID-19 outbreak a pandemic. 12 March 2020. Retrieved June 24, 2020 (https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-COVID-19/news/news/2020/3/who-announces-COVID-19-outbreak-a-pandemic).

Wynne, A. (2020). Germany and France are condemned by other EU members after blocking the export of medical supplies, raising alarm among smaller countries hit by coronavirus. *Daily Mail*, March 6, 2020. Retrieved June 25, 2020 (https://www.dailymail.co.uk/news/article-8083527/Germany-France-condemned-EU-members-blocking-export-medical-supplies.html).

Yong, E. (2020). The UK's Coronavirus 'Herd Immunity' Debacle. *The Atlantic*, March 16, 2020. Retrieved June 25, 2020 (https://www.theatlantic.com/health/archive/2020/03/coronavirus-pandemic-herd-immunity-uk-boris-johnson/608065/).

Zhou, C. (2020). Why are Western countries being hit harder than East Asian countries by coronavirus?. *ABC News*, April 24, 2020. Retrieved June 25, 2020 (https://www.abc.net.au/news/2020-04-24/coronavirus-response-in-china-south-korea-italy-uk-us-singapore/12158504).



Global Security and Cooperation in the Postpandemic Period: From the 19th Century Concert of Europe to the 21st Century Concert of Globe

Deniz Ülke Arıboğan

Prof. Deniz Ülke Arıboğan

Prof. Deniz Ülke Arıboğan is a political scientist who currently serves as the Dean of Faculty of Humanities and Social Sciences, at Üsküdar University, Istanbul. She is also a senior fellow at the Centre for the Resolution of Intractable Conflict (CRIC), University of Oxford, Harris Manchester College and founder of the Director of Üsküdar University Political Psychology Center, which was established in 2019. She is also a fellow of World Academy of Art and Sciences since 2010. Focusing her most recent work on the examination of security issues from a perspective of political psychology and non-violent methods for resolving conflicts, Arıboğan is a founding member/board member of the International Dialogue Initiative (IDI), an international and interdisciplinary group of intellectuals and scientists, founded to this end. She has published a number of articles, as well as 10 books. Among her books are Far East Asia under the Shadow of China, The Map of the Future, Theories of International Relations, Terror: From the End of History to the End of Peace, Seeing the Big Picture, and the Wall.

Global Security and Cooperation in the Postpandemic Period: From the 19th Century Concert of Europe to the 21st Century Concert of Globe[1]

Deniz Ülke Arıboğan
Üsküdar University
denizulke.aribogan@uskudar.edu.tr

Abstract
The establishment of the 19th-century "Concert of Europe" provided a relatively sustainable political stability and peace for almost 100 years yet was unable to prevent the transformative powers and revolutionary dynamics rising from within. At the turn of the 20th century, the European continent began to signal new quests for change, resulting from shifts in the political balance of power and the advancements in military technology in particular. The international policy heritage inherited by the 21st century from the previous one, which gave rise to two global wars, is not a "total sum of the relations among nation-states," but a globalized world where "there is little space of maneuver left for the states to make changes in the system." In this new setting, perceptions of global security go beyond the traditional military framework and are reshaped within the perceptions of the 21st-century security architecture with its new dimensions such as environmental threats, epidemics, economic crises, and natural disasters. On the other hand, it was exactly a severe trauma that paves the way to an existential crisis for the global society, who have already faced with two major threats, as "global terrorism" and "global economic crisis" in the first twenty years of the new century to suffer a pandemic (COVID-19), while fighting against many uncertainties of being on the verge of a transition to a new civilizational mode, namely Industry 4.0. Despite the common enemy of the pandemic which equally threatens all countries, they are unable to operate the UN, NATO, or WHO as a common platform of cooperation but as a ground for competition between countries, which does not seem promising for the future. It is crucial to know that threats to peace and security in the upcoming period will not emerge from only non-state actors such as global terrorism, environmental problems, or pandemics and will not be limited to a particular part of the world, but also rise from interstate relations, like the U.S.-China rivalry. It is only possible to transform the 19th-century "Concert of Europe" model into a 21st-century "Concert of Globe" system, with a multilateral and fair participation of the members of the global community.

Keywords
concert of Europe, concert of globe, pandemic, security, global cooperation, US-China rivalry, COVID-19

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The World Economic Forum was initially founded as an independent international institution by German economist Klaus Schwab in 1971 and it took its current name in 1987. Alongside the fact that it has gathering of thousands of important figures every year in Davos, the Forum has been the host to some historical moments such as the first time meeting of leaders of East and West Germany or again the first time get-together at ministerial level between South and North Korea. The meeting in January 2017 was witnessing yet another significant breakthrough in terms of political history. The leader of the world's largest greatest Communist Party and The President of the People's Republic of China, Xi Jinping had decided to attend the Davos Summit where all the trajectory of the capitalist economies had to be drawn. In this summit, hosting more than 2500 participants from 90 countries, it was highly anticipated what the powerful leader of China, that was making fast advances towards becoming the largest economic power of the world, had to say about global developments, especially in light of the fact that the same leader earlier set out his country's grand strategy by voicing "it is time for us to take the action and contribute to the humanity" ("Xi Jinping's Report", 2017)

Carrying the honor of being the first leader of China participating in the World Economic Forum, Xi Jinping has opened his speech titled "Jointly Shoulder Responsibility of Our Times, Promote Global Growth" by quoting the following words from the novel "A Tale of Two City" by Charles Dickens. "It was the best of times; it was the worst of times." ("World Economic Forum", 2017). The original text was going on as:

"It was the age of wisdom, it was the age of foolishness,
it was the epoch of belief, it was the epoch of incredulity,
it was the season of Light, it was the season of Darkness,
it was the spring of hope, it was the winter of despair,
we had everything before us, we had nothing before us,
we were all going direct to Heaven, we were all going direct the other way"
(Dickens, 2012: 6).

Dickens had used these words to describe the chaotic atmosphere and the socio- psychological reflections of this disarray brought forth by the French Revolution. In the tale from the end of the 18th century, the city of Paris reflected a devastating era of terror during which almost forty thousand people were sent to guillotine while the state of affairs in London was depicted as secure, orderly and full of hope renewed by the industrial revolution still in its infancy. Indeed during those years, the new production network model triggered a change in the social and political atmosphere shaping it in quite a painful way. The revisionist tendencies of the protectors of status quo were paving the way to the genesis of a conflicting and unsafe environment. Nevertheless Europe had entered a period of great leap in terms of cognition and intellectual activity, on the one hand enriching itself due to its imperial colonial powers on the other hand beginning to take a central position within the world system as a result of its industrial and military capacity to position itself in the center of the world with its industrial and military capacity.

French Revolution, defined as "the revolution of human mind" (Palmer, 1963: 3) in later years, turned into a milestone in rebuilding of new Europe. For this revolution was a merely local political riot, but instead played a striking role in first disintegrating, and then replacing the system of governance along with all the values and their social, economic and cultural roots it had been built upon. Without a doubt in this period of construction, the role of Napoleon; should not be underestimated, who spread the impact of the revolution to not only Europe but to the whole world by using the slogan "*liberté, egalité, fraternite*" and until 1815 shattered Europe with his armies. The revolution while promising its supporters the salvation from the nobility, institutionalized religion and traditional pressures highly respected in the monarchy whereas had a content synonym to mobs' gloomy force and terror (Davies, 2006: 725). Thus, the change as well as the attempt to suppress it have become the determinant factors of that era. Born out of the ideas of revolution and taken different routes in the process "liberalism, socialism and nationalism" - also known as 3 "*isms*"- (Billington, 2009: 236) , movements have not just partaken in forming political structures in the 19th century, they also have provided a foundation to all revisionist currents with their effects reaching forth until today.

Towards a System of Concert of Europe

French Revolution did neither come to life out of nowhere nor proliferate in empty space if one considers its high rate of spread and its range of access. When the production relations were converted radically towards the end of 18th century, the last remnants of the feudal structure also entered the process of disappearance. Towards the end of 1700s, mercantilism was replaced by the production economies; thus, the global spread of colonialism and its implementation were altered. The former unilateral ideology of colonialist looting was substituted by a new colonial approach searching to build economical dependencies.

On the one side, politically, spiritually and intellectual transformation beginning with the French revolution and gaining momentum via Napoleon's strategy of military expansion; on the other side the new economic order burgeoning under the influence of the Industrial Revolution, combined with the societal change and imperialist strategies in the wake of urbanized population and production boom respectively, catalyzed the emergence of historical breaking point. These periods of time when the flow of history accelerated until 1815, lead to breed many notions of the modern politics as we know them today. The revolution as a phenomenon to leap to the future; definitions of "left and right" as political determinants; the widely spreading of the universal human rights and voting rights; the liberation of the Jews; the first successful riot against slavery and leading up to its abolishment; the distinction of terror among the states and guerilla war among resistance movements as tactical vehicles and the rise of the police state as a way along with authoritarianism and the elevation of the leadership cult of defeating the democratic yearnings (Hunt, 2020).

According to the historian Eric Hobsbawm, "[b]y any reckoning [the Industrial Revolution] was probably the most important event in world history, at any rate since the invention of agriculture and cities" (1996a: 29). Right after this era, the social structure became widely diversified, and in parallel to the developments in medical sciences the population rate has increased substantially, so that when by the early 1800's the census count was only 187 millions in contrast to its reaching circa 400 million in the 1900s (McNeill, 1994: 467). Following to the population flow from rural to urban areas and the transition to factory style production, the "new economy"s rapid spreading and the increased range has created a critical diversification among the societal texture as well. The shift of labor from agricultural to industrial society and the transformation of relations of production, imposed an inevitably obligatory innovation in the superstructure. The political architecture, having mutated from feudal relationships to colonialist empires at the end of the medieval age, has paved the way to the emergence of the "modern nation-states" in the next phase, in other words at times of the new industrialized society, especially in the European geography.

The destruction on the one side triggered a process of massive reconstruction, and this was not an unexpected consequence. While the industrial society was built on a set of brand new political, social and cultural codes, thousands of years old traditional systems disolved, and the economic, social and political patterns of agricultural society vanished over time. 19th century was a period when also the war was industrialized. As of 1880's, the military engineering became prominent; the involvement of the steamboats and the railroads brought into a service enabling long distance mass travels, these advances have made a revolutionary transformation in regard to the military approaches (McNeill, 1982: 223). From the second half of 1800's onwards, the cross-border arms trade has begun simultaneously with the production of industrial military equipment coming to life (McNeill, 1982: 241).

Following the Napoleonic wars, an era of "Concert of Europe" has started in the aftermath of Vienna Congress in 1815 , to be continued for roughly 100 years, in Europe, where the political structure was shaped according to the classical power balance, i.e. in a multi-centered way. This political design which was also called the "Vienna System", has succeeded to preclude the bloody wars for a long period of time and besides the Franco-Prussian War (1870-1871) causing more than 200.000 deaths, no political problem has arisen between states which would shake continental Europe. However Eastern Europe witnessed two grand wars between Ottoman and Russian Empires, one broke out in Crimea (1853 -1856) and the second one in (1877-1878). Even if all of the big and small scale wars were included, the results overall in Europe would show that during the Concert period, the casualties of wars were seven times less compared to the previous century (Evans, 2010). In this way 19th century European politics allowed many small-scale battles while preventing them from turning to a war disrupting the general balance of power and kept all ambitions of transformation and preservation under control (Frankel, 1964: 161).

The main security concern leading to the solidarity between the emperors of Central Europe, was that the political movements emerging in this period opened the doors to an "Age of Revolutions" (Hobsbawm, 1996a) threatening to reinforce the inner instability. The revolutionist movements ravaging in whole Europe made the actual political powers to form an alliance which were trying to preserve their current political status. Because all of them knew if even one of them would show vulnerability, this would create a domino effect and may spread to the whole Europe, in other words to their homelands. Therefore, Austria, Prussia, Russia, Britain, and France known as the big five of Europe took the lead roles for this adaptation period. It was deemed the only way for each of them in order both to ease their undertakings of global colonialist actions and to bypass this unstable and staggering revolutionist era without any loss or harm. Hence in the II. Paris Agreement signed in 1815 after the Waterloo defeat of Napoleon, the rising of the "anti-liberal and anti-revolutionist spirit" is highly explicit in terms of its subsidiary aspect of organizing in the postwar period (Lascurettes, 2017). On the other hand, this period, as Henry Kissinger (1957: 5) stated, "may not have fulfilled all the hopes of an idealistic generation, but it gave this generation something perhaps more precious: a period of stability which permitted their hopes to be realized without a major war or a permanent revolution".

The Key Characteristics of the "Concert of Europe"

The system of the "Concert of Europe" is a very appropriate model for clarifying 19th century European balance of power system and the diplomatic and international political stability in the course of an anarchist order. In the eyes of realists, this system demonstrates the capacity of nation-states to act in alliance within the framework of the international power distribution and

perceptions of national interest. According to liberals it is a model to show off the benefits of international organizations and collaborations to mitigate the effects of international anarchy and to help even selfish states. From the constructivists viewpoint, it is the product arising as a result of the interactions between states and an example for the significance of the transnational collective identities (Lascurettes, 2017). This system was configured upon a range of alliance agreements and declarations, fundamentally was in search of protecting the interests of Europe's great powers while ignoring the non-European powers and was designed to procure neither peace nor justice in the world (Schulz, 2019: 27).

On the focus of this concert system, is Europe's great powers' elite statesmen, remitting with the stipulation of abiding to certain principles in the affairs among themselves. While the principle rule before 1815 had been based upon the abolition of all the international agreements in case of the emperor/sovereign's death and the validity of the agreements would be maintained under the condition of the renewal by the new king, this practice was removed afterwards. The agreements were regarded as signed not between individual monarchs but rather between the states and their validity was cancelled in case one party wished to abdicate it (Evans, 2010).

The spirit of the "Concert of Europe" was based upon four fundamental principles (Lascurettes, 2017). The first foundational principle of the Vienna System involved designating a privileged status for the most powerful actors in the system in the first place. Although it is now commonplace to differentiate "great powers" from the others, this would not have been recognized in Europe prior to the 19th century. The reason behind the acquired relative stability during the 19th century was the fact that the great powers were united in the post Napoleonic period with the purpose of securing this special status. In the I. Paris Agreement which was signed on May 1814, and ended the sixth Coalition Wars; Britain, Austria, Russia and Prussia defined themselves as the major powers and charged themselves to establish and to protect peace on the entire continent. Although there were more than 200 delegates participating to the negotiations at which almost every government in Europe attended, the decisions were made by quartet and for the first time "the small and great powers" of Europe were identified. "It was at the Congress of Vienna that the terms great at small entered clearly into the diplomatic vocabulary" (Reinalda, 2009: 18).

The II. Paris Agreement made before the Congress, was also shaped in parallel to the Quartet Alliance Agreement and has again aimed at building consultation and support mechanisms so that the great powers would preserve the ongoing stability. As for the "Holy Alliance Agreement" prior to Vienna generated by a Russian initiative and at which Prussia and Austria participated later on, it brought Protestant and Catholic kings together in order to maintain the *status quo* under the wings of Christianity. Each of the three nations promised to lend assistance to each other against threats and made an open call to other big and

small scaled governments to join in this political unity, which was supposed to create an alternative to the elite association that Metternich and Castlereagh had been trying to establish (Bridge & Bullen, 2013: 39). As a summary, pre- and post- Vienna Congress was entwined with a series of alliances, congresses, and conferences and to a great extent this logical sequence reflected the desires of the great powers of Europe.

The second characteristics of the Concert of Europe system was "an acknowledgement by the great powers that only together would they establish, defend, and redefine as necessary the political and territorial status quo on the continent. Simply put, no unilateral territorial changes would be permissible without consent from (or at least consultation with) the great powers acting in concert. Simply put, no unilateral territorial changes would be permissible without consent from (or at least consultation with) the great powers acting in concert" (Lascurettes, 2017: 6). This principle is the follow up of the first principle, departing from the idea that stability in Europe is conceived as a whole. Because the "Concert System" was built after the Napoleonic Wars, had the mission of setting a barrier both to any hegemonic attempts and revolutionist approaches, it was not only seeking to keep France from re-attempting but also to stop any kind of hegemonic quest (Schulz, 2015).

The third characteristics of the Concert of Europe is its proposal of "a loose mechanism for consultation and dispute resolution through periodic great power" (Lascurettes, 2017: 6). This approach was inspired by Immanuel Kant's idea of "perpetual peace" (1795) where he foresaw the model of *foedus pacificum* is based upon a belief of being able to ensure sustainable peace by establishing mediating mechanisms and collaborations between free states based on international law. However, it is also clear that in Kant's model, the system is conceived as a federation of republics rather than a consortium made up of great powers under the governance of monarchs.

Forth, "in assessing polities across Europe that would seek the recognitions of sovereignty and the protections built into the Vienna System, the great powers would henceforth look favorably only upon those with nonrevolutionary and conservative (non-liberal) domestic political institutions" (Lascurettes, 2017: 7). The concert approach is not a system driven by change, but by conservation and by a regressive reaction to the speed of change which led to a desperate desire to stop time. Despite having successfully established an order to be sustained for almost a century, it was not possible to resist the dynamics of change emerging from within that same order. The foundation of the Italian Unification in 1860, the unification of German principalities to establish a new governance in 1871, British Empire's extraordinary power of colonization made it virtually impossible to maintain the old status.

The End of the Centennial Concert of Europe: 20th Century and the Age of Global Wars

By around the first decade of 19th century, one can speak of a major shift from a polycentric world with no dominant center to a center-periphery hierarchical order in which the leading edge was in northwestern Europe, a previously peripheral part of the Eurasian trading system (Buzan, Lawson, 2013: 625). In the early 1900s, the Great Britain had started to control 23% of the global landscape and 24% of the global population as the "empire on which the sun never sets" (Ferguson, 2004: 15-16). At the end of this fast-advancing expansion process, colonization of the 90% of continental Africa was completed in 1890, while it was only 10% in 1870 (Armaoğlu, 1999: 81).

At the turn of the 20th century, the European powers began to signal new quests for change in order, resulting from the conflict of sharing colonies after global imperialism reached its natural borders on one hand, and the influence of political movements that opposed the system along with other elements of change such as industrialization, modernization, urbanization, and the trend of nation-states. While industrialization bred nationalism and nationalism bred the concept of nation-state (Gellner, 1983) smaller political units entered a phase of unification while major multinational empires entered the process of disintegration with World War I. Historian Laurence Lafore, in his work *The Long Fuse* in which he analyzed the underlying reasons for the start of World War I, says that while colonialist competition and the influence of militarism accelerated the process that led to war, the actual reason was the expansion of the idea of nationalism and the notion of national sovereignty opened the doors to abuse (Lafore, 1997: 30). As a matter of fact, the disruptive influence that emerged when German princedoms united and partook in the international competition joined the escalating armament race, the rise of the new allies system, and the rebellious streak of the minorities to give birth to the "new spirit of the times" – change!

Another element that triggered the disintegration of the Euro-centric system is the fact that the U.S. from the other side of the Atlantic and Japan from the other side of the Pacific joined the geographically global world system. More than 100 states joined the battle in the first global war of the 20th century: Canadian soldiers were sent to France, the Anzacs to the Gallipoli, the Indians to Europe and the Middle East, the Chinese to the British, and the Africans to the French fronts to fight (Hobsbawm, 1996b). For the first time, the fronts of conflict went well beyond the borders of Europe to reach the Atlantic and Pacific, marking the first naval war on the Falkland Islands. In 1918, the toll of the war had been unprecedentedly heavier. According to a research by the Harvard University, there were 902 great wars between 500 B.C. and 1918 and that the number of people who fought and died during World War I was seven times more than the 901 wars that came before (Bergman, 2014: 345). The fact that this war, during which it is estimated that nearly 25 million people died, was perceived as the "war to end all wars" (Hollis, Smith, 1991: 19) stems from optimistic expectation that humankind would not fall for the same mistake again.

In the 1920s, the destruction brought forth by the war made the issue of "advancing peace", a popular theme of international policy (Preston, Wise, 1970: 78). The League of Nations, which was established right after the war on January 10, 1920 and is seen by some as an extension of the Paris Peace Conference, also reflects a longing for the stability and solidarity of the past. The first 10 articles of the founding Treaty of the organization which was born out of a necessity for collective security were shaped by the content to prevent war and to support peace. The League was considered as an instrument in order to revitalize an advanced "Concert of Europe" system (Karl Polanyi, 2001: 22). The political architecture of the era was built on four pillars: The first was the presence of a balance of power system among great powers which prevented a long and devastating war, the second was the acceptance of a shared gold standard to symbolize the singular organization of world economy, the third was a self-regulating market, and the fourth was the liberal state (Polanyi, 2001: 3) However, the political balance of the 20th century (especially after the late 1920s) was built on different values.

The League of Nations, which was signed by 63 countries, had less than 60 members even during its most crowded period due to the constant entry and exit of the members. The biggest deficit in terms of the project was the fact that the U.S., which undertook the role of the most assertive entrepreneur under the leadership of President Wilson during the foundation of the organization, could not become a member due to the Senate rejection. The Soviet Union could only join the organization in 1934, and its membership was terminated five years later. Failure was made inevitable due to the exclusion of Japan, Germany, and Italy. Although the "Concert of Europe" system is seen as a precursor to the League of Nations Council in the context of great powers taking on the responsibility of peace and security (Murphy, 1983: 10), it failed to operate with the same efficiency due to the economic, political, and international conditions of the period.

One of the most important enterprises activated in addition to post-war peace treaties is the Kellogg–Briand Pact, signed in 1928, which prevented the use of war as a legitimate tool in international politics and foresaw the solution of political problems through peaceful means, regardless of the nature and source of the conflict. Aiming for the 19th-century model in essence, this effort made it into history as a peace enterprise deemed "childish" by strategist George Kennan, "ridiculous" by diplomat Kenneth Adelman, and "as irresistible as it was meaningless" by Henry Kissinger (Hathaway & Shapiro, 2017: xii).

In fact, all international regulations and efforts to defunctionalized wars were unsustainable because of enormous political and economic pressure, especially after the 1929 crisis. Moreover the belief in and the optimism about the success of these attempts became the essential factors for failure to prevent a new war. In this regard, David Starr Jordan, a freedom and peace activist and the president of Stanford University, asked the question, "What shall we say of the Great War of Europe, ever threatening, ever impending, and which

never comes?" and famously answered, "We shall say that it will never come. Humanly speaking it is impossible" (Jordan, 1913: 467). In fact, the most well-known concept about the peace regulations that followed World War I is that these regulations failed to prevent a second and an even bigger war (Roberts, 2003: 249).

While World War II caused a much bigger destruction than its predecessor, it ended the lives of 20 million civilians in addition to nearly 19 million soldiers (Brzezinski, 1994: 9). The fact that after the war, both the United Nations with the goal to "ensure peace and security" (1945) and the NATO with the aim of "regional defense" (1949) and the Warsaw Pact (1954) enabled two different perspectives to gain functionality. The political elite started to design a global organization which would ensure the continuity of the status quo by eliminating shared security threats and a military chain of allies which could interfere in case the first goal failed and the possibility of war was imminent.

The United Nations had the perspective of designing the "Concert of Europe" model on a global scale as an organization that provided a privileged position for global and large-scale powers. The fact that the five winners of the war (the U.S., Russia, China, England, and France) were granted the veto power at the Security Council with great power status reflects that spirit from 1815. The world system has never been seen as a political arena among peers, and the old belief that stability and security could only be ensured with a harmony among great powers persisted in this new order as well.

The "Concert of Europe" system served as an example to the League of Nations and the United Nations, which were its successor models of organization, in many aspects. Above all, all three are structures founded after a destructive war by allies which gathered to stop "one state" with the ambition to create an empire to rule the world. This way, the great powers of Europe not only established peace among themselves but also ensured – as monarchs – their inner stability against liberal, democratic, and nationalist uprisings (Trentt & Laura Schnuur, 2018: 23). In this regard, it is possible to say that the United Nations is not the first but the third example of international efforts of institutionalization in the periods that followed after 1815 (Trennt & Laura Schnuur, 2018: 22).

The United Nations is not the only means of organization founded after the second global war; in fact, its position can even be regarded as secondary along with the disruption based on the ideological patterns of a bipolar system. One of the most significant pillars of the political architecture that continued until the last decade of the 20th century is the fact that bipolarity was the main characteristics of the order, during the years of the Cold War, and that all perception of security was shaped around the framework of taking up a defensive position against the "tangibly defined other." The twin defense alliances, NATO and the Warsaw Pact were the main protectors of the existing status quo, led by the victorious two superpowers U.S. and the Soviet Union, and aimed to prevent any kind of revisionist claim against the prevailing order.

To some, the Cold War, built on the principle of competing ideological blocs and nuclear deterrence, was an "imaginary war" which enabled the foundation of giant military industries in the U.S., Russia, and their allies (Kaldor, 1990). Immanuel Wallerstein (1993: 1-2) takes this argument one step further and mentions a partnership between the U.S. and the U.S.S.R. He believes that post-World War II is the construction period of *Pax Americana*, and that it is founded on four pillars. The first is the gathering of great industrial powers, including the defeated states of Germany and Japan, in a relationship of alliance. The U.S. would call it the "free world." The second pillar is for the U.S.S.R. to undertake leadership within the borders defined as the "Socialist Bloc" with the conditions to position itself as an ideological opponent, to keep the peace in Europe, and to preserve the borders. The third is to achieve local acceptance about the U.S.'s responsibility to protect the world system and to slowly nationalize the colonies in the Third World. At the heart of this relative stability created by the Cold War, lies a sense of consent, based on U.S. dominance.

The Cold War was recorded in history as a "war" for some and as a "peace design" that prevented the hot wars for others. The principles of peace and security on which the period was built, managed to keep a peace order of 75 years in the Transatlantic and Pacific axes. The stability brought along by the bipolar balance of power eliminated the possibility of a hot war between the dominant actors of the system and enabled the thriving of a project like the European Union while paving the way for a great economic and political development on a global scale. The end of the Cold War made it possible for new states to join the international system, creating a new border line of 26,000 kilometers on the global surface. 26 of the 33 new members of the United Nations were new states, and 17 of them were born out of the debris of the Soviet Union (Roche, 2014).

The symbol of the end of the Cold War is the fall of the Berlin Wall in November 1989. With this, the countries of the Eastern Europe and the former Soviet Union landscape became integrated into the global capitalist market. Some of these countries were accepted as members of NATO, others joined the global peace system as part of the Partnership for Peace Project founded in 1994. The developing partnerships and the peaking of the collaboration period after the fall of the Iron Curtain paved the way for the acceptance of liberalization and democratization, which turned out to be the global economic and political standards of the newly emerging order. In fact, it is the belief that globalization reached the point of no return that lies at the heart of the idea that liberal democracies had the final victory after many along the century as developed within the framework of Francis Fukuyama's (1989) "the end of history" argument.

While some hold the opinion that the 20th century was an "American century" and that every ideal it represented won every battle for a hundred years, it was also interpreted as the formation of a unipolar world order under the

leadership of the U.S. which was described as a "benevolent empire" (Porter, 2017). Some believe that "not since Rome has one nation loomed so large above the others" (Nye, 2002: 1) and this created a convenient environment in the world system to build a "hegemonic stability" (Gilpin, 1991: 88). On the other hand, one should also consider the fact that, in this new order which developed along with the "world is flat" argument (Friedman, 2006) and gained impetus with the revolution of communication and the internet, there are now new actors besides the states and that they have gained enough power capacity to compete with the state establishments.

The new order, carried the production systems outside the nation-state borders unlike the foresight of the industrial civilization, started moving around in an integrated environment where the entire world has become a global village. The continuation of the war between the states and the non-state actors either on visible or invisible grounds led to the shaping of political polarization on a complex path. The concepts such as "post-international politics" (Rosenau, 1990) or "cobweb" (Burton, 1971) which have been seen in international relations studies and used to define the system since the 1970s are quite functional to define the political architecture built on the principle of complexity of the post-industrial order (Arıboğan, 2019b: 34). In fact, the concept of "post-industrial society," coined in literature by Daniel Bell in 1973 (Bell, 1973), points to a sociological transformation and claims that this, like all new civilizations, will impose a change that permeates all aspects of life, both personal and social.

In terms of economy, this change was shaped by certain era-specific developments such as the creation of a giant capitalist market, the global distribution of investment and production, the mobilization of labor, and the fact that global finance gained extraordinary fluidity and a nation-less identity with thanks to its freedom from being attached to a geography. On a political level, it signifies a direct transition from a system among nation-states to a pluralist model of interaction which includes global and non-state actors. Naturally, the security architecture of the 21st century is designed within a formula that includes these new actors in one way or another. In this new system, international politics takes place not as a "whole of relations that comprises the sum of the foreign policies of all states" (Gönlübol, 1978: 27), but in a globalized world where "states have very little space to make changes in the system with their role in the making of foreign policies" (Rosenau, 1990: 279). There's no doubt that global security perceptions began to be evaluated with other aspects such as environmental threats, pandemics, financial crises, and natural disasters as per its content defined as "comprehensive security" (Derian, 1995: 26). Therefore, it became inevitable for many aspects of daily life including economic, political, sociological, theological, and technological to be interpreted with a focus on security.

The 21st-Century Perception of Security: Terrorism, Economic Crisis

The fact that the new century began with the terror attacks of 9/11 led to the prioritization of security concerns over all issues such as power, peace, competition, conflict, and collaboration, and so the spirit of the time was built on this dynamic. The period after 2001, during which the global threat of terrorism overshadowed international competition and conflicts in the meaning of creating a massive security threat, is a time when all great powers of the system came together to make decisions and to develop a joint reaction towards the common enemy defined as "radical Islamic terrorism." After the 9/11 attack, in less than 24 hours, NATO Council gathered and executed, for the first time in history, the fifth article which activated the "collective defense" principle as a response to an attack against one of its members. Meanwhile, the United Nations shortly took over the operation initiated by NATO and started to conduct the ISAF (International Security Assistance Force) command based in Afghanistan as per the decision dated December 20, 2001 and numbered 1386.

The operation conducted in Afghanistan against Al-Qaeda and the Taliban regime which was its supporter led to the perception of all Central Asia and the Middle East as a basin of evil by the allies over the course of time. Such a tangible manifestation of a common enemy design for the Western world and the fact that its position and identity characteristics were so well-defined was an important step in the construction of a collective security architecture. Likewise, the design of the notion of security is an exclusionary process based on the perception of "us and them," and it means knowing what you're up against and from which direction the threat may come. In this regard, it is a subjective attitude to decide whether an issue poses a security risk. The "securitization approach" points to the fact that every security design is an innate quality of politics and, therefore, asks analysts, decision-makers, or activists this ethical question, "Why do you perceive this as a matter of security? What are the effects of doing or not doing this?" (Waever, 1999: 334).

The fact that the global security threat, embodied via Al-Qaeda and derivatives, became the most significant problem of the 21st century and the binder of the "us sentiment" is ultimately the product of the construction of a subjective perception. Just like the design of a common enemy - revolutionist movements and uprisings - which gathered the emperors of the 19th century around the same table of diplomacy and created a period of harmony for 100 years, the global perception of terrorism enabled the definition of those who belong through the description of the "other." The priority of an anarchist environment is to protect the essence, i.e. self, and to ensure its safety. In this regard, the concepts of security vary based on the scope and approach within which the self is defined compared to the other (Wendt, 1991: 339). Likewise, identities are relational and interest oriented. Indeed, securitization is instrumental as part of the construction of identity. According to Wendt, who is one of the founding fathers of the theory of social constructivism in international politics, classifies security systems into three categories. The first is the "competitive

security" in which the benefit of one is regarded as the loss of another. Based on a Hobbesian anarchist environment in one sense, this model prioritizes relative benefits and losses. The second is the new liberal systems that include "individualist security" systems in which states continue their egoist behaviors pursuing their absolute gains. Lastly, there are "cooperative security" systems which include collective security mechanisms that grow weaker or stronger based on the members' loyalty to the community (Wendt, 1991: 400). The direction the global system will follow is decided by conjecture.

Although the great powers of the system after September 11 first came together under the leadership of the U.S. against the "other," they made an effort to maximize their own gains over time. After the attack, Putin, who fully supported the U.S. and defined terrorism as the "plague of the 21st century," (Loughlin, Tuthail & Kolossov, 2005: 3) benefitted from this alliance by including the Chechnya problem, which was his own security issue, in the "radical Islamic terrorism" package. The rhetoric of "war against terrorism" not only helped the U.S. and Russia to find a common reason to collaborate but also made it easily visible to see the differences of perception between the two. The U.S. focused on international measures since it regarded terrorism as an external threat while Russia defined the risk raised in its own landscape with a similar content as banditry against national unity and a type of radicalism that disrupts social order (Hill, 2002). China defined the national security threat stemming from East Turkistan as a group of "radical Islamists", which was financed from the Middle East, trained in Pakistan, and gained war experience in Afghanistan and Chechnya, that joined the global network of terrorism (Chen-Peng Chung, 2002). Although they regarded terrorism as a local issue, they instrumentalized the anti-terrorism security discourse when it was realized that the definition of Uyghur Turks as an extension of the global terrorism network would be an ideal adhesive in the integration with the other world.

The concept of security which, despite being a strong political concept, includes conceptual ambiguities along with a subjective and weak framework, (Buzan, 2016) and "securitization speech act" (Munster, 2012) transformed the foreign policies of countries after 9/11 while enabled the redistribution of economic resources in favor of the military-industrial complex. The total military expense of the world increased from 798 billion dollars (Sköns et al., 2001) to 1.9 trillion dollars in 2019 (Global Military Expenditure, 2019). Since this means that the financial resources reserved for education, health, tourism, etc. would now be directed towards the security industry, an economic reconstruction became inevitable.

While the 2008 economic crisis dealt a second blow to the globalization process led by non-state actors, the world witnessed - for the first time after the crisis since 1945 - ("The post-2016", 2017) a recession of globalization with the influence of state mechanisms that returned to the system with their protective and regulatory roles (Arıboğan, 2018: 46). The establishment that experienced the biggest blow from the crisis was the European Union model which was

regarded as the perfect project of the 20th century. The European integration movement, built on common norms and values collectively determined by a group of global business leaders and intellectuals, were constantly questioned even by its members after this period, which also witnessed the first steps of the recent disintegration process. In this context, it is possible to say that the Brexit process was not a surprise, and that, as expressed by Britain's former Finance Minister Alistair Darling, the "financial crisis [which started a decade ago] has become an economic crisis, than the economic crisis has turned into a deep political crisis" ("Darling: Brexit," n.d.).

Not only the global economic crisis influenced the world's financial and economic markets but also the wide masses who were dissatisfied with the global course of events put the blame of their traumas on the globalization process. It shortly became out of fashion to define the world as a place built on a system of shared norms and values without borders, where labor and capital roamed unhindered and cultures intermingled. The liberal West in particular witnessed the fastest rise of populism, conservationism, discrimination against the other, and negative nationalism. The belief that a global and liberal world would be born after the fall of the Berlin Wall turned into disappointment as the Mexican Wall became a flag for the U.S. President Donald Trump's policies. While the notion of a walled-in world cascades, it has marked the end of an idea for permeable borders among countries and drove nearly 70 countries to the strategy of "constructing border walls" (Jones, 2020). While the "Cold War" offered people, the evil gift of the Berlin Wall which had a shadow greater than itself, the "Cold Peace" paved the way for a "century of walls" which makes the disunity of the world visible even from space (Arıboğan, 2018: 3).

Security and Collaboration after the Pandemic

The third biggest global crisis of the 21st century started with the shocking footage from the city of Wuhan in China in January. Although initially it was believed to remain a local disease like the SARS virus which became an epidemic in 2003, it was soon understood that this new disease is the most serious health crisis the world is facing since the Spanish flu in 1918 ("Who Director," 2020). After the diagnosis of the first patient on November 17, 2019 (Brayner, 2020), the new virus named COVID-19 spread all across the world despite all measures and, by March, 11, 2020, the World Health Organization (WHO) had to announce a pandemic, which was a "global outbreak". While people had to stay at home with curfews all around the world, the first reflections of a heavy global economic recession began to be felt. The economy in China shrank for three months for the first time since the death of Mao Zedong in 1976 (Wall Street Recovers, 2020) and downsized by 6.8% (Nagarajan, 2020). Only in the first two months, 36 million people in the U.S. lost their jobs (Rapoza, 2020) and European economy entered an economic stagnation, heaviest since World War II and big enough to surpass the 1929

economic depression (Guggenheim, 2020). The U.N. reports state that, due to the pandemic, global economic production will experience a loss of 8.5 trillion dollars in two years and that 34 million people around the world will "fall below the extreme poverty threshold" while 130 million will fall down to the "poverty-stricken" level" ("COVID-19 to Slash," 2020).

Doubtless, it is an existential crisis for the global society to face such a heavy trauma while struggling with many ambiguities at the entrance from a post-industrial civilization to a new order of civilization called Industry 4.0. Although some claim that the pressure to use technology imposed by the pandemic will accelerate this transition, every threat against people's lifestyles, wealth, and relations will surely create a security risk. Indeed, the concept of security in the modern sense is based on four goals defined by needs: survival, welfare, freedom, and identity (Galtung, 1985: 146). People are beings that need security and look for mechanisms for self-defense against dangers in order to survive - just like regimes or states.

The push factor of the "Concert of Europe" system founded in the 19th century was the political movements that encouraged uprising against monarchical regimes. The pull factor was the fact that the peace and stability created in Europe provided a favorable environment for the cross-border operations of the colonialist powers of Europe. The harmony between monarchies was functional to lighten the pain of sociological and economic transformation and the transition into an industrial civilization and positioned Europe at the center of the world's political system. The Concert of Europe system can be seen as the predecessor of the European Council, and even the G-8 and the U.S.-U.N. summit meetings (Ginsberg, 2007: 27). Similarly, the European Union project is a re-attempt at realizing a concert model, previously tried in the European landscape, this time with a more organized structure. However, the weakening status of the organization, which has been one of the pillars of a sustainable peace and stability in the European landscape since World War II, have deepened with the pandemic crisis. In addition to the already-present data that member countries such as Hungary and Poland have been going down a more authoritarian path, various measures taken in an attempt to control the pandemic such as curfews, state of emergency declarations, and closing the borders demonstrate that nation-state authorities are becoming more introverted and more centrist. However, this is not only limited to Europe. The fact that a similar approach has been seen around the world and that introverted self-help systems are preferred instead of global security and cooperation patterns prove that the world does not perceive the pandemic as a shared threat, or even so, does not lead to collective security arrangements in order to deal with it.

The most distinctive political effect of the pandemic is that it provides a leverage effect to clarify the tension between the U.S. and China. The U.S. President Donald Trump has been pointing at China as the responsible party for the crisis and offers various signals that they might refer to sanctions.

To him, this is a "Chinese virus," and the U.S. has faced with an attack far bigger than Pearl Harbor and even 9/11. Besides, the Chinese government demonstrated a tremendous act of irresponsibility by pressuring the World Health Organization and caused the entire world to suffer more damage. Nonetheless, the Chinese government's counter strategy was to create an ambiguity regarding the source of the virus and to send aid to the surrounding countries in need as part of its "politics of generosity" (Green, Medeiros, 2020). Besides Xi Jinping, the President of the People's Republic of China, is trying to establish a "victory diplomacy" by his messages, like "we won, we beat the virus", "we fought better than any country in the world". Thus, they have the opportunity to prove that, just like in the global economic crisis of 2008, state-centric authoritarian regimes are more successful at dealing with crises than liberal regimes.

Essentially, the pandemic crisis could produce neither a new *Pax-Sinica* nor a renewed *Pax-Americana*; on the contrary, both powers could leave this thing in a weaker stance. Historically speaking, the direction of a power equation rising through a hegemonic rivaly, is shaped by military capabilities, wealth, technology, and quality of leadership. The victory of Sparta against Athens, the rise and fall of European colonial powers, or the banishing of the British Empire from the western hemisphere - they have all taken place within this framework. However, the situation between the U.S. and China is different. China not only does not flinch from receding at the possibility of defeat but also prefers to display a low profile in its fight for global leadership in order to maintain its immense economic power. On the other hand, the U.S. resorts to counter tactics such as regime change, political instability, and planning actions to disrupt stability on a local and regional scale in order to prevent any rising power to become a contestant. In this regard, while the Chinese play the game of Go, the Americans move with the principles of chess (Ahmad, 2018).

It can be safely said that the power struggle between China and the U.S. and the global order scenarios will take shape in the future based on three factors: the change in the military and economic forces of great powers, how this change of power is perceived by the rest of the world, and which strategies these great powers will put into use. In the context of these three factors, it is normal for both China and the U.S. to worry about their global influence in the aftermath of the pandemic (Rudd, 2020). Although it is equally disruptive for both powers to leave the Cool War (Feldmand, 2015) turn into a Cold War (Barkin, 2020), it also would not be surprising for the already deteriorated relations, made so through trade, technology, and intelligence wars, to get even tenser and spread as far as Taiwan and the South China Sea (Buckley, Myers, 2020).

The balance of power and security after the pandemic can be analyzed neither in a centerless environment as it was in the 19th century nor under the conditions similar to the NATO-Warsaw split which created the two poles of the Cold War. The fact that regional powers are in intense competition in an already

polycentric global order without a center, in addition to the U.S., China, Russia, and the central countries of the E.U. signifies an unstable environment soon. The military, economic, cultural, and diplomatic competition between the countries does not lead to the use of the U.N., NATO, or the World Health Organization as a common platform despite shared threats and opportunities of collaboration. Therefore, it will be useful to keep in mind that in the times to come, the threats against peace and security might not be limited to non-state areas such as global terrorism, environment, and epidemics, but also may stem from interstate relations.

Conclusion

The "Concert of Europe" system was a peace arrangement founded by the great powers of Europe in 1815 and, over the course of nearly 100 years until World War I, maintained stability in the European landscape. This political architecture not only disallowed the hegemonic powers of the system to fight each other but also prevented anti-regime political movements to gain power and provided a convenient environment for the colonial activities that spread all over the world.

The efforts to renew this Concert system, which was hindered by World War I were not limited to Europe, and it came forth with the harmonization and satisfaction of the great power in the organization of both the League of Nations and the United Nations. While both arrangements were based on the preservation of the status quo which was approved by the winners of the war, the veto power at the United Nations Security Council was granted for the permanent members who were raised to the level of decision-makers for the sake of protecting peace and security.

The global society, facing with the threat of global terrorism, global economic crisis, and a pandemics in the first two decades of the 21st century, failed to meet the expectations in demonstrating harmony between great powers and hence made it impossible to build a "Concert of Globe" system. On the contrary, these crises were used as instruments by hegemonic powers to gain the upper hand against all others and forced the states towards a self-help system while implementing various and even contradictory survival strategies. The political polarization between the U.S. and China, which became even more visible with the pandemic, shows that the already-disrupted relations between the two great powers will continue to grow even worse and that the global order may experience a tempestuous period.

In the 21st century, the concept of security should not be defined only in the context of military risks, but it also comprises issues that require high-level international collaboration such as environmental conditions, pandemics, threats from terrorist organizations and organized crime networks, economic problems, immigration and refugee problems, etc. Scientists agree that the

COVID-19 will not be the last epidemics. Despite that, the dominant forces of the system not only are unwilling to collaborate but also are suspicious against international regulations and organizations on the basis that they serve the interests of the other.

Although the century we live in began with shared security problems and global threats against all humanity, states failed to build a structure which will encourage them to think and act together and to benefit from opportunities of collaboration. The foundation of a renewed, harmonious, and collective security architecture under the leadership of great powers is not feasible with the current atmosphere of changing power balances and the multidimensional competition atmosphere. A stable order can only be created not exclusively among the big players but within a more egalitarian mechanism among all the equal members of the system. The best cost-free way to ensure security is not to leave the reponsibility of preserving peace and stability to monopoly of great powers but to support joint action of sustainable global organizations with fair representation. Therefore, the motto that the "World is bigger than five," is more meaningful than ever.

References

19th Century Inter-State Wars. (t.y.): https://www.globalsecurity.org/military/world/war/19th-century.htm

Ahmad, K. (2020). Pax Americana vs. Pax Sinica and the Struggle For New World Order: https://cscr.pk/explore/themes/politics-governance/pax-americana-vs-pax-sinica-and-the-struggle-for-new-world-order/

Arıboğan, D. Ü. (2018). *Duvar: Tarih Geri Dönüyor*. İnkılap Kitabevi Yayınları.

Arıboğan, D. Ü. (2019a). *Uluslararası İlişkiler Düşüncesi*. İnkılap Yayınevi.

Arıboğan, D. Ü. (2019b). *Büyük Resmi Görmek*. İnkılap Kitabevi.

Armaoğlu, F. (1999). *20.Yüzyıl Siyasi Tarihi* (C. 1). Alkım Yayınevi.

Barkin, N. (2020). In the Post-Pandemic Cold War, America is Losing Europe: https://foreignpolicy.com/2020/05/19/coronavirus-pandemic-europe-opinion-polls-united-states-china-losing/

Bell, D. (1973). *The Coming of Post Industrial Society; A Venture in Social Forecasting*. New York Basic Books.

Bergman, J. (2014). *The Darwin Effect, Green Forest*. Master Books.

Billington, J. H. (2009). *Fire in the Minds of Men; Origins of the Revolutionary Faith*. New Jersey Basic Books.

Bridge, F. R. & Bullen, R. (2013). *The Great Powers and The European States System, 1814-1914*. Routhledge.

Bryner, J. (2020). 1st known case of coronavirus traced back to November in China: https://www.livescience.com/first-case-coronavirus-found.html

Brzezinski, Z. (1994). *Kontrolden Çıkmış Dünya*. Çev. Haluk Menemencioğlu. Türkiye İş Bankası Kültür Yayınları.

Buckley, C., Myers, S. L. (2020). From Respect to Sick and Twisted, How Corona Virus Hit US-Chine Ties: https://www.nytimes.com/2020/05/15/world/asia/coronavirus-china-united-states-cold-war.html

Burton, W. J. (1971). *World Society*. Cambridge University Press.

Buzan, B. (2016). *People States anda Fear: an Agenda for International Security Studies in the Post-Cold war Era*. ECPR Press.

Buzan, B., Lawson, G. (2013). The Global Transformation: the nineteenth century and the making of modern international relations. *International Studies Quarterly, 59*(1), 620-634.

Chung, C. P. (2002). China's War of Terror. *Foreign Affairs, 81*(4), 8-12.

COVID-19 to slash global economic output by $8.5 trillion over next two years: https://www.un.org/development/desa/en/news/policy/wesp-mid-2020-report.html

Darling: Brexit would not have happened without banking crisis (t.y.): https://www.theguardian.com/business/2017/sep/13/darling-brexit-banking-crisis

Davies, N. (2006). *Avrupa Tarihi*. İmge Kitabevi.

Derian, J. D. (1995). The Value of Security. *On Security*, Columbia University Press.

Dickens, C. (2012). *A Tale of Two Cities*. Simon and Brown.

Economist. (2017). The post-2016 world order: https://www.economist.com/buttonwoods-notebook/2017/03/02/who-will-lose-when-globalisation-retreats

Evans, J. R. (2010). Peaceful Was:eas the 19th century a time of relative peace?: https://www.historyextra.com/period/victorian/peaceful-war-was-the-19th-century-a-time-of-relative-peace/

Feldman, N. (2015). *Cool War; The United States, China and the Future of Global Competition*. Random House.

Ferguson, N. (2004). *Colossus: The Rise and Fall of American Empire*. Penguin Books.

Frankel, J. (1964). *International Relations*, Oxford University Press.

Friedman, T. (2006). *Dünya Düzdür*. Çev. Levent Cinemre. Boyner Yayınları.

Fukuyama, F. (1989). End of History: https://ps321.community.uaf.edu/files/2012/10/Fukuyama-End-of-history-article.pdf

Galtung, J. (1985). Twenty-Five Years of Peace Research: Ten Challenges and Some Responses. *Journal of Peace Research, 22*(2), 141-158.

Gellner, E. (1983). *Nations and Nationalism*. Cornell University Press.

Gilpin, R. (1981). *War and Change in World Politics*. Cambridge University Press.

Ginsberg, R. H. (2007). *Demystifying the European Union, The Enduring Logic of Regional Integration*, Rowman & Littlefield Publishing.

Gönlübol, M. (1978). *Uluslararası Politika*. Ankara, A.Ü.S.B.F Yayınları.

Green, M., Medeiros, E. S. (2020). The Pandemic Won't Make China the World's Leader: https://www.foreignaffairs.com/articles/united-states/2020-04-15/pandemic-wont-make-china-worlds-leader

Guggenheim, B. L. (2020). How Will Europe Weather This Storm? : https://southeusummit.com/europe/how-will-europe-weather-this-storm/

Hathaway, O. A., Shapiro, S. J. (2017). *The Internationalists: How a radical Planto Outlaw War Remade the World*. Simon and Schuster.

Hill, F. (2002). Putin and Bush in Common Cause? Russia's View of the Terrorist Threat: https://www.brookings.edu/articles/putin-and-bush-in-common-cause-russias-view-of-the-terrorist-threat-after-september-11/

Hobsbawm, E. (1996a). *Age of Revolution 1789-1848*. Vintage Books.

Hobsbawm, E. (1996b). *Kısa 20. Yüzyıl: 1914- 1991, Aşırılıklar Çağı*. Çev. Yavuz Alogan. Sarmal Yayınevi.

Hollis, M., Smith, S. (1991). *Explaining and Understanding International Relations*. Clarendon Press.

Hunt, L. (2020). More Fratenité Than Liberté: https://www.nybooks.com/articles/2020/03/26/napoleonic-wars-more-fraternite-than-liberte/

Jones, R. (2016). Borders and Walls: Do Barriers Deter Unaouthorized Migration? : https://www.migrationpolicy.org/article/borders-and-walls-do-barriers-deter-unauthorized-migration

Jordan, D. S. (1913) The Impossible War. *Independent, LXXIV*, 467-475.

Kaldor, M. (1990). *The Imaginary War*. Blackwell Publishers.

Kant, I. (1960). *Ebedi Barış Üzerine Felsefi Bir Deneme*, Çev. Yavuz Abadan ve Seha Meray, A.Ü.S.B.F Yayınları.

Kellogg-Briand Pact 1928. The Avalon Project Documents in Law, History and Diplomacy. (t.y.) : https://avalon.law.yale.edu/20th_century/kbpact.asp

Kissinger, H. A. (1957). *A World Restored: Metternich, Castlereagh and the Problems of Peace, 1812–1822*. Houghton Mifflin Company.

Lafore, L. (1997). *The Long Fuse; An Interpretition of the Origins of World War I*. Waveland Press.

Lascurettes, K. (2017). The Concert of Europe and Great Power Governance Today: https://www.rand.org/content/dam/rand/pubs/perspectives/PE200/PE226/RAND_PE226.pdf

Loughlin, J. O., Tuthail, G. O., Kolossov, V. (2004). A "Risky Westward Turn? Putin's 9-11 Script and Ordinary Russians". *Europe-Asia Studies, 56*(1), 3-34.

Mc Neill, W. (1994). *Dünya Tarihi*, Çev. Alaaddin Şenel. İmge Kitabevi.

McNeill, W. (1982). *Pursuit of Power*. University of Chicago Press.

Munster, R. (2012). Securitization: https://www.oxfordbibliographies.com/view/document/obo-9780199743292/obo-9780199743292-0091.xml

Murphy, J. F. *The United Nations and the Control of International Violence*. Manchester University Press.

Nagarajan, S. (2020). China's economy suffers its first contraction in 28 years, shrinking 6.8% in an 'extraordinary shock' to the global economy: https://www.businessinsider.com/china-economy-falls-first-quarter-2020-after-half-century-growth-2020-4

Nye, J. (2002). *The Paradox of American Power*. Oxford University Press.

Palmer, R. R. (1963). The World Revolution of the West: 1763-1801. *The Eighteenth-Century Revolution; French or Western*. Lexington, Heath and Company.

Partnership for Peace Programme, North Atlantic Treaty Organization. (t.y.): https://www.nato.int/cps/en/natohq/topics_50349.htm

Polanyi, K. (2001). *The Great Transformation*. Beacon Press.

Porter, R. S. (2017). *Benevolent Empire. US Power, Humanitarianism, and the World's Dispossessed*. University of Pennsylvania Press.

Preston, R. A., Wise, S. F. (1970). *Men in Arms: A History of Warfare and Its Interrelationships with Western Society.* Praeger Publishers.

Rapoza, K. (2020). Some 42% of JobsLost in Pandemic Are Gone For Good: https://www.forbes.com/sites/kenrapoza/2020/05/15/some-42-of-jobs-lost-in-pandemic-are-gone-for-good/#416c017850ab

Reinalda, B. (2009). *Routledge History of International Organizations; From 1815 to Present Day,* New York, Taylor &Francis.

Roberts, J. M. (2003). *Yirminci Yüzyıl Tarihi*. Çev. Sinem Gül. Dost Kitabevi.

Roche, J. J. (2014). Walls and Borders in a Globalized World: The Paradoxical Revenge of Territorialization. *Border, Fences and Walls; State of Insecurity.* Routledge.

Rosenau, J. (1990). *Turbulance in World Politics*. Princeton University Press.

Rudd, K. (2020). The Coming Post-Covid Anarchy: https://www.foreignaffairs.com/articles/united-states/2020-05-06/coming-post-covid-anarchy

Schulz, M. (2015). Paradoxes of a Great Power Peace. *Paradoxes of Peace in Nineteenth Century*. Oxford University Press.

Schulz, M. (2019). Cultures of Peace and Security From the Vienna Congress to the Twenty-first Century: Characteristics and Dilemmas. *Securing Europe After Napoleon; 1815 and the New European Security Culture.* Cambridge University Press.

Sköns, E., Loose, E., Omitoogun, W., Stalenheim, P., Weidacher, R. (2001). Military expenditure and arms production. SIPRI Yearbook 2001: https://www.sipri.org/yearbook/2001/04

Stockholm International Peace Research Institute – SIPRI (2020). Global military expenditure sees largest annual increase in a decade -says SIPRI- reaching $1917 billion in 2019: https://www.sipri.org/media/press-release/2020/global-military-expenditure-sees-largest-annual-increase-decade-says-sipri-reaching-1917-billion

Trentt, J., Schnuur, L. (2018). *A United Nations Renaissance*. Barbara Budrich Publishers.

Waever, O. (1999). Securitizing Sectors, Reply to Erikson. *Cooperation and Conflict* 34(3), 334-340.

Wall Street Recovers After a Day of Turbulent Trading. (2020): https://www.nytimes.com/2020/05/14/business/stocks-live-coronavirus.html

Wallerstein, I. (1993). The World System After the Cold War. *Journal of Peace Research, 30*(1), 1-6.

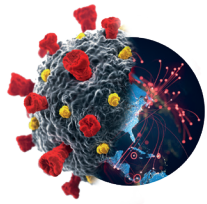
Wendt, A. (1992). Anarchy is What States Made of it: The Social Construction of Power Politics. *International Organization, 46*(2), 391-425.

Who Director-General's opening remarks at the media briefing on COVID-19. (2020): https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020

Wimmer, A., Feinstein, Y. (2010). The Rise of the Nation-state Across the World, 1816-2001. *American Sociological Review, 75*(5), 765-790.

World Economic Forum Annual Meeting. (2017): https://www.weforum.org/events/world-economic-forum-annual-meeting-2017/sessions/opening-plenary-davos-2017

Xi Jinping's Report at 19th CPC National Congress. (2017): https://www.chinadaily.com.cn/china/19thcpcnationalcongress/2017-11/04/content_34115212.htm



Global Governance in the Postpandemic Period: The World Health Organization and the Future of International Organizations

Birol Akgün
Metin Çelik

Prof. Birol Akgün

Prof. Dr. Birol Akgün completed his M.A (1996) and PhD (2000) degrees at Case Western Reserve University, Department of Political Science in USA. Since 2014, he has been teaching in the department of International Relations at Ankara Yıldırım Beyazıt University, while at the same time serving as the President of Turkish Maarif Foundation. He is the author of several books: American Presidency: From Republic to Empire; Electoral Behavior, Party System and Political Trust in Turkey; The World, US and Turkey in the Aftermath of September 11.

Metin Çelik, Ph.D.

Dr. Metin Çelik is an Assistant Professor of International Relations at Selçuk University. He received his Ph.D. (2015) in International Relations at Gazi University. His current research interests are international politics, state sovereignty, international organizations, political myths and Turkish foreign policy.

Global Governance in the Postpandemic Period: The World Health Organization and the Future of International Organizations[1]

Birol Akgün
Ankara Yıldırım Beyazıt University
birolakgun@hotmail.com

Metin Çelik
Selçuk University
metincelik@gmail.com

Abstract
The COVID-19 disease, which first emerged in China in December 2019, has caused severe weaknesses in the global governance processes, especially in the functioning of the world health system, as well as in politics, security, and economic fields. The health crisis has turned into a stress test for the governments in internal politics, and international institutions in international politics. However, The World Health Organization (WHO), the main authority of the global health regime for the fight against the COVID-19 threat, which is supposed to be a source of hope for the international community, now has rather become the focal point of the power struggle and political debates among the great Powers in pandemic time. On the other hand, the UN, its specialized agencies, EU, NATO, and other regional international organizations, which are expected to take the initiative on COVID-19, have been ineffective in the management of the COVID-19 pandemic because the "big powers" failed to undertake the leadership role. Because of global governance weaknesses and failures, many states such as Turkey fought against pandemic by depending on their own resources and by developing their national measures and methods. As a result, many observers agree that the liberal international order established after 1945 has been seriously wounded in the COVID-19 process and that international institutions will face a deep legitimacy crisis. As far Turkey, it has proved its capacity by providing health security to its own people while also demonstrating its strong political will to cooperate internationally by sending vital support to the needy nations in the time of crises.

Keywords
Global Governance Crisis, COVID-19 Pandemic, The World Health Organization

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The global pandemic caused by the emergency of a new type of coronavirus, which started in December 2019 in Wuhan (China) and spread rapidly all over the world, has infected to nearly eleven million people in the period until the end of June 2020 and has cost the lives of around 500 thousand people. Many governments, including Turkey, China, the USA, and European countries, had to take extraordinary measures to protect their citizens against the disease. The mortality scale of the pandemic and the media influenced the process. Air and land transportation has been stopped, schools have been closed, curfews have been implemented almost all over the world. Due to these measures, serious disruptions occurred in global production, trade, and supply chains. Education, trade, and management processes within and between countries have been digitized faster than ever. Despite the development of modern technology and globalization rhetoric that speeds up human and social life more than ever and unites its common destiny, the most prominent feature of the COVID-19 era was "*the lack of solidarity and cooperation*" among the states in the international stage. Despite the catastrophic pandemic conditions, international organizations such as the United Nations (UN) and the European Union (EU) have not developed any serious initiatives in the process of the fight against the disease. These organizations have been unsuccessful in critical issues such as economic support, coordination of humanitarian aid, and medicine supply.

The World Health Organization (WHO), which is a UN's affiliated organization, should (i) lead the processes concerning the health of humanity on a global level, (ii) provide cooperation and solidarity in the fight against COVID-19 between the major states, especially the USA and China. But in reality, it has become the tool of political conflicts and reckoning. *In particular, US President Trump criticized the WHO administration for not informing the world community about the infectious disease in a timely and correct manner, accusing the WHO of becoming*

an organization serving the interests of China. Trump officially sent a letter to the WHO headquarters in Geneva on May 15, 2020, saying that he suspended the membership of the USA and that he would not pay the membership fees of 500 million dollars to this organization (npr.org, 15.5.2020). Undoubtedly, this decision to withdraw from WHO membership is a behaviour consistent with a populist and nationalist foreign policy that excludes the US from multilateral diplomacy after the Trump administration has come to power. But this isolationist approach of the US administration and the nationalist policies that EU countries demonstrate in the fight against COVID-19, create very serious concerns about global governance and the future of international institutions. This period when the "new normal" conditions of the world order after COVID-19 debated, is described by some experts as "*the moment of radical uncertainty*" in the international order (Blackwill and Wright, 2020). Indeed, COVID-19 created perhaps the biggest transformative pressure on the domestic politics of the countries and the functioning of the current international relations system after the Second World War. The main reason for the pandemic's deepening of uncertainty is that the liberal international order, which the US pioneered to establish after the Second World War, started to weaken after the 2008 global financial crisis and the US lost its leadership role in the face of rising China and other emerging power centers (Acharya & Buzan, 2019). In such a historical conjuncture, pandemic plays a catalyst role in accelerating the restructuring process of the geopolitical balances in the world.

The purpose of this article is to discuss how the "new normal" conditions of the international order was been emerging by analysing the functioning of the global governance system in the COVID-19 process and by overviewing the global economic-political trends. The global governance system and the dynamics of transformation will be summarized theoretically. The structure of the World Health Organization and its performance to manage the COVID-19 process will be evaluated. Finally, some evaluation will be discussed regarding Turkey's possible roles in the future.

Global Governance Crisis

Global governance can be defined as the co-ordinated functioning of actors, regimes, rules, and mechanisms that play a role in the functioning of the international system including states, international organizations, non-governmental organizations, and other components of the international society. Although this governance process may seem complicated due to the intertwined actors and the whole set of rules, it is a dynamic decision-making process (Karns & Mingst, 2010: 4; Heywood, 2011: 538-542; Griffits and O'Challaghan, 2002: 125).

The main umbrella organization of the current international governance system is defined as the UN. The UN carries out global governance and

cooperation functions through the IMF, the World Health Organization, IBRD, World Trade Organization, and many other specialized organizations. In particular, the UN Security Council can have an impact on states through binding decisions on issues concerning global peace and common security. However, global governance should not be perceived as the united global government that rules the whole world (Brown & Ainley, 2007: 108). The UN encourages states to establish sound relations with each other and other organizations voluntarily in the international system, in coordination with international and transnational organizations at the regional level in many areas.

The best approach to global governance should be attempting to understand it rather than to define it. Because a uniform definition is too complex to reach. The sum of the principles, norms, rules, decision-making, and problem-solving mechanisms that regulate a particular issue area in international relations and the cooperation of actors working in the relevant field are called "international regimes" (Krasner, 1983). Although not always formed around a specific international organization, there are usually some organizations that form international regimes. We can presume that at least there is a founding international contract that reflects the interests of the actors involved. On the global level, "cooperation regimes" can be mentioned in certain areas that regulate and manage issues such as human rights, environmental issues, migration flows and the limitation of nuclear weapons, and finally the prevention of epidemics that threaten the international community (Karns & Mingst, 2010: 11-12).

However, it should be noted that no matter how much importance is attached to international organizations and international regimes in the globalized international relations system, the main determinants of the functioning of international politics are still states. *The main motivation that guides states' behaviour is their national interests. Therefore, the capacities and successes of the UN and other international organizations to effectively respond to political, economic, and humanitarian crises are often insufficient. The main reason for this, as the realists emphasize, is that international organizations cannot act independently of the interests of the great powers that established those structures.* When political consensus is provided among the big states on global and regional matters and crisis situations, international organizations can take decisions and apply much faster and more effectively. But international organizations become dysfunctional when interests of big powers diverge (Akgün, 2020a).

There is a WHO-led "global health regime" that envisages global cooperation in the field of combating dangerous diseases and international public health protection. Essentially, as a "soft collaboration space" that unites all actors, the history of international regulations on health security is very old and goes well before the UN and even the League of Nations. However, it is a fact that all the leading states are unable to act in cooperation and harmony in critical situations excluding for rare exceptional periods. For this reason, as seen in the

COVID-19 process, regional and global influential international bodies such as the WHO, World Trade Organization, and the European Union display weaknesses and they are at the center of legitimate criticism.

The process of questioning and debating over the principles of "internationalism" or "institutionalization" of the current liberal order, which intensified after the 2008 crisis, is getting stronger due to the recent global health crisis. Because in this process, the states had to rely on their own capacity and resources ("self-help") in problem-solving. The crises of global governance, after the COVID-19 pandemic, caused the confidence loss by nation-states on international cooperation and solidarity, and the process forced nation-states to close inward. It is frequently emphasized that this situation will have very different permanent effects after the crisis and that nothing will be the same in the post-pandemic era (Fukuyama, 2020).

To understand the impact of the COVID-19 pandemic on the international system, it is enough to consider radical measures contrary to the spirit of the liberal international system, such as closing the borders even by the strong states, restricting and prohibiting passenger traffic, and increasing export controls. Besides, due to the pandemic, the efforts of many countries to subsidize their economic system with financial assistance packages, to disclose the business support and consumer recovery programs were the clearest indication that something was not working properly for the liberal international system. More importantly, the attitudes of the USA and China, which are in mutual competition regarding the functioning of the current liberal international system, have been the most important factor in the ineffectiveness of strong global cooperation mechanisms such as the G-7 and G-20, especially the UN and WHO. International organizations, especially the UN bodies, which are the basic elements of global governance in the liberal international order, have deeply failed to respond adequately to the COVID-19 global pandemic. This clearly indicates a "global governance crisis" situation (Patrick, 2020; Akgün, 2020a: 20).
UN, which was the main actor of the international system especially after 1945, has not taken any serious steps in the pandemic process. UN Secretary-General Guterres made a statement regarding the cessation of conflicts in different parts of the world during the COVID-19 pandemic process on March 23, 2020. The UN General Assembly called for members states to cooperate against the pandemic in two sessions held in April 2020. The first session of the UN General Assembly about the COVID-19 was held on April 2, 2020, only 3 months after China officially announced the epidemic to the international community.

UN General Assembly called for all stakeholders of the UN system to have coordinated fight with the social, economic, and financial effects of the COVID-19 pandemic under the auspices of the UN Secretary-General (A/RES/74/270). It followed by a second decision taken on 20 April 2020 in the fight against the COVID-19 pandemic when UN recommended co-operation

to ensure global access to vaccines, medicines, and medical equipment (A/RES/74/274). As the resolutions of the UN General Assembly were advisory, they did not have much impact on member states. However, these resolutions to call for solidarity served a face-saving voice for the UN.

The UN Security Council was also ineffective in the fight against COVID-19. China, which started to chair the UNSC in March 2020, prevented decision-making on pandemics by claiming that "public health issues were outside the Council's geopolitical agenda" (Patrick, 2020: 44). However, UNSC's evaluation of the Ebola pandemic in Africa in 2014 as an event that threatens international peace and security (S/RES /2177) shows that UNSC could bring pandemics to its agenda if needed. However, in the period between December 2019 to March 2020, during the period when China was not acting as the President of the Council, the UNSC was ineffective, too.

Since there is no leading international organization or state that plays a "global leadership" role in the fight against the pandemic, other regional organizations have also been ineffective. In this context, the European Union (EU), which became the most important initiative in the field of international peace, trade, and cooperation after 1945 turning into a transnational structure over time, was also ineffective during the pandemic period. It even caused a serious crisis of sincerity and trust among the member countries. During the period when COVID-19 was particularly acute in Spain and Italy, other EU member states closed their borders with these countries, practically suspended the Schengen Agreements, which triggered serious discussions on the spirit of "European Solidarity" and "Pan-Europe" ideals. On the other hand, NATO, which also includes many EU countries as a member, has not made any serious attempts to cooperate in the COVID-19 pandemic. The fact that member countries such as Italy and Spain had to depend on the assistance from countries such as Russia and China, had cast a shadow on NATO's credibility among the member states regarding the legitimacy of NATO.

Global Health Governance Regime: WHO and Common Regulations

In conventional realist approach, the traditional content of the concept of security, which was interpreted and defined as state-centric, changed in the 1980s and started to be evaluated with different parameters such as environment, climate, natural resources, crime, terrorism, xenophobia, instability, migration, and poverty. After the Cold War, health has also been more intensively included in government safety assessments due to increasing global epidemics such as HIV/AIDS, Ebola, bird flu (H5N1), swine flu (H1N1), and SARS. Because of the epidemic and pandemic cases of various diseases, the risk of spreading throughout the world can have serious effects on public health, political, economic, social, and security fields. Even in standard textbooks on international security, "health safety" has now been dealt with as an independent subtitle (Smith, 2010).

However, the determination of health as a common security issue for the states and taking global measures dates to the 19th century. It was a period of globalization when the 19th century states started to establish commissions within the framework of common goals and needs, and the first international regimes began to be established. The Rhine and Danube River Commissions (1831/1856), which organized joint transportation in transboundary waters, the International Telegraphic Association (1865) and the International Postal Union (1874) to create order and coordination in communication, and the International Railway Transport Association (1874) to organize a cross-border transport were initial examples. The International Weighing and Measurement Bureau (1875) and many other international organizations were established in the 19th century in line with the efforts to standardize the trade operations that began to spread worldwide.

In the same period, one of the issues that brought the states together and sent them to search for solutions against common threats was the issue of health. The first International Health Conference convened in Paris, led by France, on 23 July 1851, to develop common methods of struggle against the cholera epidemic that began to spread among European states and affect international trade (WHO, 1958: 3). Other participants of the international conference (the Ottoman Empire named it as "Bab-i Ali/Turkey" in the official documents) were Austria, France, Greece, the Vatican, Portugal, Russia, Sardinia, Sicily, Spain, Tuscany and Great Britain (WHO, 1958: 4). With this conference, medical research has started in the context of a common fight against cholera, and states have taken concrete steps for cooperation in the field of health safety.

WHO is the last step of attempts to establish cooperation mechanisms in the field of health security starting from the 19th century. 11 international conferences on health quarantine arrangements, which began in 1851 and lasted for sixty years, resulted in the signing of the International Health Convention in 1903 (Patrick, 2020: 42). International Public Hygiene (Hygiene/Public Health in Paris in 1909) office was established in 1909 in Paris, and for the first time, information on epidemics began to be collected in one united center (WHO, 1958: 15). This structure started to function with the League of Nations Health Committee, which was established in Geneva in 1923 and formed the legal and practical basis of WHO.

Following the establishment of the UN, the Constitution of the WHO was signed as a result of the International Health Conference held in New York on 19-22 June 1946 and entered into force on 7 April 1948. Thus, WHO started its activities as the biggest expert institution of the UN in terms of budget and members. The headquarters of the 194-member organization is in Geneva, with six regional committees and offices in over 150 countries worldwide, with over seven thousand employees. In the founding agreement, the aim of the Organization is defined as bringing humanity to the highest possible level in the field of health. To achieve this goal, the following tasks have been defined: coordinating and managing international organizations in the field of health,

ensuring cooperation between states and international institutions; providing support to governments on their demands in health care; encouraging and supporting work on the elimination of epidemic and pandemic diseases; establishing international norms related to health (WHO Constitution, art. 2). In this context, WHO combats regional and global scale diseases such as AIDS, ebola, malaria, tuberculosis, smallpox, syphilis. It provides research support, shares information, and provides medical equipment and treatment support.

While fulfilling these objectives, the WHO has prepared important Regulations, especially in the fight against epidemic diseases. With the International Hygiene Regulations of 1951 and the International Health Regulations of 1969, WHO tried to identify global-scale epidemics and to determine the roles of the Organization and governments in combating epidemic diseases. In the International Hygiene Regulation of 1951, the diseases such as plague, cholera, yellow fever, smallpox, epidemic typhus of lice origin were classified global epidemics (WHO, 1952).

In the International Health Regulations (IHR) only plague, cholera, and yellow fever were mentioned (WHO, 1983). Treatment studies supported by WHO were also very effective. After a partial review in 1973 and 1981, a ten-year comprehensive review of IHR (1969) started in 1995, due to the rise in international trade and passenger transport, the threat of epidemics that erupted in the Democratic Republic of the Congo. With the SARS (severe acute respiratory syndrome) epidemic that started in 2002 in China and spread worldwide, the review process has accelerated and was accepted by the WHO Assembly on May 23, 2005 and came into force in 2007. Thus, the IHR (2005) became the main operational document of WHO. With IHR (2005), WHO's Global Vaccine and Immune Alliance (GVIA), Global Health Safety Agenda, and World Bank's Pandemic Emergency Financing created the strong infrastructure for global health protection (Samancı, 2014).

The IHR (2005) has significant differences from the 1951 International Hygiene Regulation and the IHR (1969). The outbreaks were mentioned in the Regulations of 1951 and 1969, therefore WHO's field of activity and authority was limited. In the current IHR (2005), member states are obliged to report immediately upon the emergence of "public health emergency of international significance" (IHR 2005, art. 6 and 7). Thus, all kinds of unusual events threatening international public health were defined in a wide range, and the states were obliged to report immediately.

Also, in IHR (2005), participating states should establish a National Focal Point to implement health measures under the Regulation and to provide the necessary contact with WHO (art. 4); to develop the capacity to identify, evaluate, and report (i.e. initiate a surveillance and monitoring process (art. 5). Also, it was stated that they should inform WHO within 24 hours of the events and information that will cause "public health emergency of international importance" (PHEIC).

Unlike the Regulations dated 1951 and 1969, the existing IHR brought new rights and obligations to WHO. First of all, the WHO is not only satisfied with the official information of the state affected by the epidemic but also has the authority to obtain information from non-state sources directly (art. 9 and 10). WHO has the authority to detect and declare "public health emergency of international importance" through its General Director and the announcement of this situation is not left to the states only (art. 12). Thus, with the IHR (2005), WHO has become the top legitimate authority with the legal capacity to coordinate the fight against international infectious outbreaks.

The Future of the World Health Organization

When compared with the previous regulations of WHO, it is seen that the new regulations introduced by the new IHR (2005) will cause some discussions within the framework of international law and state sovereignty in the context of the relations between the states and the Organization. In this regard, regulations such as WHO's ability to make partially binding decisions on the states, making the states responsible for the outbreaks occurring within its borders with notification to the Organization, and the announcement of "public health emergency with international significance" by WHO instead of the government of that state, shows that some "supranational" powers are granted to WHO. The fact that the states granted such powers to WHO in 2005 "overrunning" their sovereignty was only possible with the effect of the "liberal spirit" ("cosmopolitan moment") in the international system, which peaked in the early 2000s. Before the states could decide on the actions to be carried out within their boundaries due to their sovereign rights. But after the new IHR (2005) they powered WHO to decide sanctions in the field of health to member states.

However, it should be noted that the assessment to consider WHO as an organization with strong transnational status after IHR (2005) could be misleading. Because it was openly stated in article 22 of the WHO Constitution adopted by the World Health Assembly that the regulations are binding for all WHO member countries, except for those who "refuse and report their reservations to the General Director within a certain period". Looking at this article, WHO has the right to make binding decisions on states, but an open door has been left to member states. It is understood that states have the option not to comply with any regulations already adopted by the World Health Assembly.

However, the liberal environment or the soul ("cosmopolitan moment"), which had an impact on the international system in the early 2000s, started to weaken very quickly after the 2008 crisis. The global competitive environment led by the USA and China caused the international system to begin to take on a realist framework again. This process triggered the crisis and debates during the COVID-19 pandemic within the framework of "Triangle of WHO, USA, and China".

WHO's performance has been criticized in the fight against the COVID-19 virus. WHO initially failed to perceive the COVID-19 threat correctly, had to content itself with the information provided by China about the virus, and was late with reasonable and correct information to the international community. In turn, it quickly shared the information obtained from China "behind the schedule" with scientists on a global scale and tried to coordinate research on the diagnosis of the virus, the detection of its genetic structure, the development of the vaccine against the virus, and the treatment methods.

When the process is reviewed, it is seen that the WHO has learned the COVID-19 virus on the same date with the international community when China made a statement on December 31, 2019. WHO first took a "skeptical and cautious" attitude due to the lack of prior knowledge by China. On January 20-21, 2020, the WHO sent a fact-finding delegation to China. WHO identified that COVID-19 was also passed from human to human unlike previous statements by the Chinese authorities, it had declared "Public Health Emergency of International Concern" (PHEIC) on January 30. WHO described COVID-19 as a pandemic or a global scale epidemic on March 11th, about two months after the first case outside China was seen in Thailand on January 13th. WHO was harshly criticized in the fight against the COVID-19 pandemic since it delayed in the intervention for an extremely cautious approach and China's non-transparent behaviour sharing limited or speculative information. US President Trump has declared the withdrawal from membership by writing an official letter to WHO to protest this situation and possibly to draw public attention from the problems in the country during the COVID-19 struggle process.

To understand the criticisms of WHO during the COVID-19 pandemic process, it is necessary to briefly touch upon the organizational structure of the Organization. According to the WHO Constitution (art. 9-37), the organization has three principal bodies. The first is the World Health Assembly, which is the decision-making body of the Organization that determines the organization's policies, accepts the contracts, treaties, regulations, and recommendations in the field of health, and supervises the financial policy of the Organization. The Assembly is composed of delegates representing each member state. The second is the Executive Board, which is the executive authority of the Organization, consisting of 34 technical staff members selected for three-year periods, considering the geographical distribution, implementing the decisions taken within the framework of the policies determined by the Assembly. The third main body is the Secretariat, which represents the organization in all international platforms and carries out coordination activities. The General Director is at the head of the Secretariat. Also, XI Section of the WHO Constitution, the regional organization of the WHO through regional committees and offices is also envisaged, apart from the essential organs.

Within the framework of this administrative structure, WHO has 194 members today and continues its activities with more than 150 offices spread over six

main regions with around 7 thousand personnel (who.int, 2019)., each member state has the right to "single and equal" voting. A two-thirds majority of the members attend the session on important matters in the Assembly, and most of the members attend the session on other matters. This institutional structure is criticized by states such as the USA that contribute to the WHO budget more than other member states. The budget contributions do not have any impact on voting in the Assembly, which is the main decision-making body of WHO. Some members do not have a more advantageous or privileged status than other members. In this case, the USA, which accounts for 15% of the WHO budget alone, cannot have the privileged status (like the US's special status in the IMF or the UN Security Council) in WHO. Considering the responses of the states towards not only the USA but the overall activities of WHO's activities until today, it can be said that while the least developed countries are highly encouraging and supportive, relatively strong states do not want a strong WHO (Kickbusch, 2020).

However, although each member state has one and equal voting rights on a legal basis, the participation shares in the budget can make some states and NGOs more effective in WHO. Because the budget of WHO, which is an international organization, consists of voluntary donations of international NGOs and some IGOs, apart from state dues and aids. For example, the organization's two-year budget for the 2020-21 period is $ 4.8 billion. In the 2018-19 budget, the USA has a share of 14.67%, Bill & Melinda Gates Foundation 9.76%, GAVI Insurance 8.39%, UK 7.79%, Germany 5.68%, World Bank 3.42%, European Commission 3%, 3, China 0.21%, and Turkey 0.08%. In the total, 75% of the budget of the organization consists of voluntary donations of states, IGOs , and NGOs, and the rest consists of member state fees and project-based financing. On average, 40% of the organizational budget consists of private foundations and other international institutions, most of which use US-origin capital, 35% are donations and dues by the USA, UK, Germany, Japan, Canada, Norway, and the rest by other member states and IGOs (open.who.int, 2020).

Indeed, the USA, the countries that have close political relations with the USA, and the US foundations have a great financial impact on WHO. For this reason, in a statement he made in April 2020, US President Trump criticized WHO for implementing policies under the guidance of China and decided to freeze US financial aid for WHO for 2-3 months. However, Bill Gates, president of the Bill & Melinda Gates Foundation, the second biggest supporter of the WHO budget, criticized Trump for the decision made during this difficult time of humanity.

As a result, WHO member states and financial supporters approaching WHO with different policies may cause weaknesses in WHO's functioning. Developing countries demand a balanced WHO because they prefer not to restrict their commercial activities for health reasons. Less developed countries demand strong WHO due to healthcare assistance. NGOs, on the other hand, show an attitude towards a relatively independent WHO. States and organizations with the

largest share in the WHO budget, especially the USA, the UK, Germany, Japan, and the Bill & Melinda Gates Foundation, continue to "pressurize" WHO to focus on specific diseases rather than on international general public health issues, making WHO weak and ineffective against pandemics (Patrick, 2020: 46).

The budget of the organization and its commitment to strong states and NGOs can be reflected in practice as an addiction. It is very rare for the WHO to express its opinion openly about a member state's performance amid the outbreaks. For example, Gro Harlem, one of the former WHO Managers, described the fact that China and Canada did not fulfill their responsibilities in the SARS case in 2003 (Kickbusch, 2000).

It was intended to establish WTO as a technical international organization in Geneva, away from New York after 1945, to avoid political conflicts. But WHO is exposed to more political pressures in comparison with many other international organizations. Because it can interfere with the sovereign rights of the states with its decisions to slow down international transportation and trade during pandemic periods and bring regulations regarding important products in international trade. It is inevitable that an international organization, which is partially equipped with the restrictive and binding powers of states, to attract political pressures.

The key concept in WHO's success in international public health activities is the "common interest and threat" perception. It will be able to protect the common global health interests of humanity to the extent that the WHO can direct member states to act together against common threats such as pandemics. Criticisms of WHO did not start for the first time with COVID-19. WHO has also been debated in the international community during the previous HIV/AIDS, SARS, bird flu, and swine flu pandemics. WHO was criticized more for the COVID-19 pandemic because it was politically trapped between the U.S. and China, competition in the age of global power transition.

A new review process can be expected in WHO with the COVID-19 pandemic, which previously had similar effects for the preparation and review of the International Hygiene and Health Regulations in 1951, 1969, 1973, 1981 and 2005. However, what is important here is whether WHO will settle for a series of reviews only to combat outbreaks, or whether there will be a radical change that will eliminate budget dependency and the political pressures associated with budget-related constraints. Considering that the liberal spirit, which made its impact felt in the international system in the 2000s, began to dissolve after 2008 and the realist system made itself felt again. Therefore, it should not be difficult to guess that the states would not allow a radical change in WHO's structure, budget, and regulations in the foreseeable future.

The Absence of Global Governance and the Role of Turkey

The COVID-19 pandemic has become a serious challenge to the liberal international system, built on the pillars of international cooperation and solidarity. International organizations and global governance, which serve the common interests of the liberal system for ensuring peace and stability during the pandemic period, have failed to realize the expected outputs. For this reason, the states had to develop their own solutions, methods of protection, and struggle against health-related challenges.

Relatively weak states more badly experienced the COVID-19 pandemic compared to powerful states as a political stress test on a global scale (Fukuyama, 2020: 31). Turkey as an important regional actor implemented effective measures and methods of struggle against the pandemic respecting international solidarity and cooperation, therefore, gained international public appreciation during health crises.

Turkey actively used multilateral and bilateral institutionalized cooperation platforms during the pandemic period. Turkey applied the humanitarian and enterprising foreign policy to protect the level of existing cooperation from the effects of political conflicts and it demonstrated that the crisis could be converted to an opportunity. It was also revealed that the likelihood of cooperation between actors increases in such crisis environments, where the expectations for reciprocity and reputation are very high (Dai et al., 2017).

On March 26, 2020, President Erdoğan said in his speech at the G-20 Leaders Summit that "None of us have the luxury of implementing protective and unilateral policies. A free, open, and rules-based international trade system will play a major role in reducing the effects of the measures we take on the outbreak. In this context, it is important that all the national measures we will take are compatible with the World Trade Organization rules and encouraging international cooperation" (TCCB, 2020a) (TCCB, 2020a).

On 10 April 2020, at the video conference Turkish Council on "Cooperation and Solidarity in the Fight Against the COVID-19 Outbreak", the President defined the Turkish Council as a useful platform for solidarity and cooperation among the member countries, also, it made concrete cooperation proposals for the health ministers to share information and experiences (TCCB, 2020b). In this context, Turkey realized national health measures, but on the other hand, it has sent the basic protective equipment to various countries including test kits and ventilators. Even Turkey provided basic and advanced medical help to the most affected developed countries. From the earliest days of the epidemic crisis until the end of May 2020, Turkey has sent various medical assistance to more than 100 countries.

Turkey has successfully managed the process through effective national health measures and international supportive activities while ineffective global governance came up during the global pandemic period. In the post-pandemic

era, Turkey should continue its active policy towards existing institutions at all levels in international systems. Also, Turkey should pursue its policy based on a win-win understanding in an economic-commercial sense, justice and representation in a political sense, humanitarian solidarity in a moral sense with a holistic vision, and a reformist attitude (Akgün, 2020b: 81).

Conclusion

In a pandemic period, such as COVID-19 that threatens the lives of billions of people all over the world and does not allow humanity to continue normal daily life, the weakening of cooperation mechanisms and intergovernmental solidarity does not coincide with the realities of a globalized world. Moreover, the nationalist and populist approaches observed in an era when the fate of people turned into such interdependence through production, trade, supply chains, and technology indicate a serious global governance crisis and pose a serious concern and anxiety to the world in terms of the future of global peace and security.

The vision of a peaceful liberal world that emerged after the "cold war" has been replaced by a pessimistic realism with risks of conflict between the great powers. The severe stressful environment created by the COVID-19 outbreak on the world political institutions has revealed the weaknesses of the global governance system, as well as the new fault lines of the multipolar world system that has been established in the post-hegemonic period. Instead of cooperative global governance based on liberal values, the world entered a more realistic period of international relations when existing (the USA) and rising (China) actors entered a serious competition among themselves.

It is essential to comprehend the global governance crisis in the pandemic process as a reflection of this new world reality and a "harbinger" of future predictions. Such a confrontational and competitive period is also called a "hybrid period" or "heterogeneous world order" in which different norms and understandings compete with each other. The world entered a period where uncertainties increased, cooperation areas narrowed, and bilateral inter-state relations were prioritized instead of multilateral diplomacy. In this context, it will not be a surprise that after the pandemic, the criticism and calls for reform towards all international institutions (especially the UN including its specialized agencies such as WHO) have increased.

Turkey voiced the need for the reform of the international system for a long time. Turkey will capture the significant opportunities in the post-pandemic period with the effects of moral and political legitimacy that it has gained for its solidarity approach and humanitarian diplomacy during the pandemic era. Active and coordinated diplomatic efforts are essential for proper positioning in the new era of the restructuring of the global governance system.

References

A/RES/74/270 (2020). Global solidarity to fight the coronavirus disease 2019 (COVID-19). 3 Nisan 2020.

A/RES/74/274 (2020). International cooperation to ensure global access to medicines, vaccines, and medical equipment to face COVID-19. 21 Nisan 2020.

Acharya, A. ve Buzan, B. (2019). *The Making of Global International Relations*. Cambridge University Press.Cambridge.

Akgün, B. (2020a). Uluslararası Yönetişim Krizi. *Kriter. 5*(46), 19-21.

Akgün, B (2020b). COVID-19 ve Uluslararası Kurumların Rolü. *COVID-19 Sonrası Küresel Sistem: Eski Sorunlar Yeni Trendler*. SAM Yayınları. Ankara. 76-81.

Blackwill, R., and Wright, T. (2020). *The End of World Order and American Foreign Policy*. Council Special Report No. 86 May 2020. https://cdn.cfr.org/sites/default/files/report_pdf/the-end-of-world-order-and-american-foreign-policy-csr.pdf (07.06.2020)

Brown, C. ve Ainley, K. (2007). *Uluslararası İlişkileri Anlamak*. Çev. A. Oyacıoğlu. Yayın Odası. İstanbul.

Dai, X., Snidal, D., and Sampson, M. (2017). International Cooperation Theory and International Institutions. *Oxford Research Encyclopedia*. Online Publication Date: November 2017. https://oxfordre.com/internationalstudies/view/10.1093/acrefore/9780190846626.001.0001/acrefore-9780190846626-e-93?print=pdf (04.06.2020)

Fukuyama, F. (2020). The Pandemic and political Order: It Takes a State. *Foreign Affairs*. July/August 2020, 26-32.

Griffits, M. ve O'Challaghan, T. (2002). *International Relations: The Key Concepts*. Routledge. New York.

Heywood, A. (2011). *Küresel Siyaset*. Çev. N. Uslu, H. Özdemir. Adres yayınları. Ankara.

Karns, M. ve Mingst, K. (2010). *International Organizations: The Politics & Processes of Global Governance*. Lynne Rienner Publisher. London.

Kickbusch, I. (2020). COVID-19 Is Smoke and Mirrors: What Matters Is International Law. *Think Global Health*. https://www.thinkglobalhealth.org/article/COVID-19-smoke-and-mirrors-what-matters-international-law (21.05.2020)

Krasner, S. (1983). *International Regimes*. Cornell Uni. Press. London.

Patrick, S. (2020). When the System Fails: COVID-19 and the Cost of Global Dysfunction. *Foreign Affairs*. July/August 2020, 40-51.

Samancı, U. (2014). Uluslararası Sağlık Tüzüğü (2005) ve Hukukî Niteliği. *D.E.Ü. Hukuk Fakültesi Dergisi. 16*(2). 113-169

Smith, M. (2010). *International Security: Politics, Policy,* Prospects. Palgrave. London.

TCCB (2020a). Koronavirüs salgını ile ilgili süreçte sorumluluk almak ve küresel ölçekte iş birliği göstermek zorundayız. https://www.tccb.gov.tr/haberler/410/118060/-koronavirus-salgini-ile-ilgili-surecte-sorumluluk-almak-ve-kuresel-olcekte-is-birligi-gostermek-zorundayiz- (26.03.2020)

TCCB (2020b). Cumhurbaşkanı Erdoğan, Türk Konseyi'nin "COVID-19'la Mücadele ve İş Birliği" konulu zirvesine katıldı. https://www.tccb.gov.tr/haberler/410/118114/cumhurbaskani-erdogan-turk-konseyi-nin-COVID-19-la-mucadele-ve-is-birligi-konulu-zirvesine-katildi (10.04.2020)

UNSC (2014). Peace and Security in Africa. S/RES/2177, 18 Eylül 2014, http://unscr.com/files/2014/02177.pdf (03.06.2020)

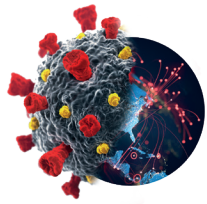
WHO (1952). *International Sanitary Regulations: Proceedings of the Special Committee and the Fourth World Health Assembly on WHO Regulations No. 2*. Geneva.

WHO (1958). *The First Ten Years of the World Health Organization*. Geneva.

WHO (1983). *International Health Regulations: Third Annotated Edition*. England.

WHO (2005). *International Health Regulations*. Third Edition. France.

https://open.who.int/2018-19/contributors/contributor (22.05.2020)



Global Governance and Crisis Management in the Post COVID-19 World

Talha Köse

Assoc. Prof. Talha Köse

Assoc. Prof. Talha Köse is the chair and an Associate Professor of Political Science at Ibn Haldun University. Dr. Köse completed his doctoral studies at the School of Conflict Analysis and Resolution (SCAR)-George Mason University in 2010. Dr. Köse worked as a visiting professor at George Mason University and University Maastricht (Netherlands). Dr. Köse's research focuses on ethnic, sectarian and religious conflicts and political violence in the Middle East and conflict resolution approaches in foreign policy. Dr. Köse is an expert in peace processes, Alevi identity and non-coercive approaches in Turkish Foreign Policy, countering extremism. Dr. Köse edited and published 4 books in Turkish and published more than 30 academic articles and book chapters both in English and Turkish.

Global Governance and Crisis Management in the Post COVID-19 World[1]

Talha Köse
İbn Haldun University
talha.kose@ihu.edu.tr

Abstract
The idea of internationalism is one of the fundamental pillars of the current international order. Liberal internationalism became the predominant paradigm for dealing with global problems since the end of the Cold War. Liberal internationalism is in decline since the 2008 Global Financial Crisis. COVID-19 Pandemic is expected to accelerate the dissolution of the existing liberal order even further. Three alternative scenarios are mentioned to replace the current order. Revised internationalism, China-centric or regional power centric orders, and chaos are the alternatives discussed here. A revised version of liberal internationalism seems to be the better alternative, which offers a more inclusive framework to address the global challenges. China-centric or regional power centric approach may offer a hierarchical and more security-oriented perspectives to international problems. Chaos is a possibility, but it may only be prolonged since it will hurt almost all actors all actors. Turkey and the other international actors will define their roles according to the emerging order.

Keywords
Liberal internationalism, global crisis management, Post COVID-19 World Order international order, chaos

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Many international relations experts define COVID-19 pandemic as a crisis that has the potential to affect the world economies and politics in the most rooted and adverse manner since the Second World War (Acharya 2020; Blackwill and Wright, 2020; Summers, 2020). Therefore, this crisis will trigger the transformations in different areas or accelerate the process of change many areas. At this phase it is not realistic to bring convincing explanations that may persist too long since the process of change is still continuing. Making projections on the basis of past experience will help us make predictions for the future and help us to understand the post COVID-19 world better.

This study focuses on the changing nature of crises in the international relations in the aftermath of Coronavirus. It focuses on with which methods these crises will be handled with in the new period and what kind of resolution mechanisms can be used accordingly. Under the light of the recent experiences, the direction of change of the solution for the local and global crises in the world's politics after the COVID-19 pandemic is evaluated. While basically making projections for the future, it also examines alternative scenarios concerning the subject. The essential claim of the study is the mistake of getting caught up in over pessimistic or over optimistic scenarios in the environment of current uncertainty. There are steps that can be taken regarding the development of each scenario. Foreseeing these possible scenarios and planning the steps within the frame of certain possibilities will be a more promising step in this phase.

The way the actors within the current international system manage and try to solve the crises that emerged with COVID-19 will determine the direction of the evolution of world politics. In this context, three main scenarios can be mentioned. The first and perhaps the most positive scenario is the political actors who established the current international system and the will see the

deficiencies of the current system and develop a better one with a more comprehensive and more inclusive approach. This can also be described as attempts to undergo a comprehensive revision and remedy the deficiencies, and it means a more comprehensive revision of liberal internationalism. Another alternative is the handling of the disorder and power gap emerging in the crisis environment with a new political will and the formation of a completely new order. There are predictions that China, the rising power in this regard, can undertake a more active role in the coming years (Campbell & Doshi, 2020). Besides such studies, there are also comments claiming that China's role is exaggerated (Allen et al., 2020; Green and Medeiros, 2020; Rapp-Hooper 2020). Furthermore, it is possible that different actors at the regional levels will undergo/attempt such roles. A more pessimistic scenario is that the current crisis will get deeper and turns into a comprehensive chaos for a certain period of time due to the lack of a common approach and a shared vision. In addition to these three scenarios, the hybrid models comprised of different combinations of all three options are possible to emerge. Each option to arise may require different approaches to manage global and regional crises.

The COVID-19 related crisis has the potential to trigger wars by destabilizing many parts of the world. In the current environment, there is no clear situation concerning to which scenario we are closer yet, but there are ones who say that the leading signals strengthen the possibility of the chaos scenario. The more realistic scenario in this whole situation and change is the possibility of the emergence of a hybrid model that is the intersection of the three scenarios. While getting ready for the next period, Turkey should also get prepared to this uncertain period and get ready to take the necessary steps according to each scenario. The actors who are ready for the change will actively contribute to the shaping of the system rather than drawn into such a change. Likewise, the actors making this contribution will play a more active role in the new period. Therefore, competition is inevitable in terms of shaping the new period. The mental preparation for the process and the performance of the cost benefit analysis for the possible scenarios are also critical for the correct management of the process.

Crisis of International System

The most important characteristic of the crises is that by generating uncertainties they force political actors to make choices in sensitive issues. It is almost impossible to keep the status quo under the emerging conditions. Therefore, the prolongation of the crisis period also force the change. Managing such change or being crushed under the convulsiveness of the change are among the possible scenarios. The reactions to be given to the crises is an open-ended process, and such reactions, by limiting the effects of the crisis, may direct the actors towards a positive direction, but also may also deepen such effects. One of the most risky actions to take during the moments of change is the strategy to keep the status quo as it is. The change will eventually impose itself on an environment where the system is forced

to evolve. Therefore, the steps to be taken in such historical moments and the leadership attitude to be exhibited gain more importance compared to the periods when everything is in a predictable order (Ikenberry, 2018: 22; Boin, Hart, Stern, & Sundelius, 2016). Being dragged along the change, in other words, leaving itself in an uncontrolled manner to the flow of change is another extreme attitude. Although the change takes place in a systematic way, there will be significant differences among the consequences to occur for each specific actor. For this reason, leaving themselves to the flow of change may have unexpected consequences for the actors, such as not being able to adapt sufficiently into the system.

Political actors have more responsibilities than ever before during the systemic crisis and periods of transformation. There will be competing approaches among different actors in the international platform regarding how the crisis management and the following order should be handled, however this does not mean that such competition will completely eliminate the possibility of cooperation. In a similar manner, different social and political segments and interest groups within the country will present different approaches on how to respond to the dynamics of change. The approaches with chaos-based forecasts a little bit exaggerated in this regard (Rudd, 2020). The direction in which this new platform will evolve is also related to the critical choices that the actors will make. Leadership attitude is to manage the crisis and lead the tranformation according to the interests of the majority by considering both the internal and external dynamics.

COVID-19 pandemic will have consequences in many areas such as politics, economy, society, psychology, culture, etc. There are different opinions as to whether these results will support a permanent change and transformation or whether it will be temporary or not. While some thinkers claim that COVID-19 pandemic will accelerate the ongoing wave of change in the world (Haas, 2020), some other thinkers claim that the individual effects of this crisis will not be as deep as it was thought (Drezner, 2020; Nye Jr., 2020). There is another thought that this entire change and transformation process will trigger the instability and that lots of things will not be the same again (Allen et al., 2020; Campbell and Doshi, 2020; Irwin, 2020; Kaplan, 2020; Kissinger, 2020). It is possible to find various data supporting all these opinions and to make various theoretical and empirical justifications. The most common and agreed up on issue is the claim that COVID-19 pandemic will further accelerate the rapid change being experienced in the world (Haas, 2020; Nye Jr., 2020). In any case, it is a general belief that we will evolve towards somewhere outside of the current mainstream in world politics and world's order we got used to.

This study agrees with the idea that COVID-19 pandemic and its complex consequences will have systemic effects in terms of international politics and will trigger some structural changes. The current international system can no longer provide fair and sustainable solutions to important collective problems, wars, environmental problems and economic inequity in the world (Ikenberry,

2018: 1-23). As the number of unmanaged and unresolved problems increase, the legitimacy and functioning of the current system will be questioned by more actors. The necessity of a new paradigm, a new system will begin to be expressed by more people.

(Mazarr, 2018). And finally, this attitude will force a systemic change, since the actors are not completely impotent in this system.

If the international order that we got used to becomes ineffective in terms of meeting the needs and requirements of the day, then it will be disturbed; however, the formation of a new order can only be actualized when a new political will decides to establish an order with an ambitious attempt. Without any doubt, there will be actors who support such a will and approach, as well the ones who oppose it. While making predictions on the direction of change, the main reason why we exhibit a more reluctant approach to the formation of a new order is that such a political will has not yet emerged in a visible manner. Neither the USA and Western institutions have completely gave up their roles in the order of the world, nor have a new actor attempted in terms of leadership to create a new order in the emerging gap. There are predictions that China will fill such a gap; however, China has not yet revealed that it is ready and willing to play such a role.

The Decline of Current International Institutions

The changes being currently experienced partially set light to the following period. For example, claiming that the World Health Organization (WHO) could not take effective and transparent steps in struggling with the pandemic and acted under the influence of China, the American president Donald Trump announced that his country will not cooperate again with the WHO and that the USA will cease the financial aid to the WHO (Hoffman and Vasquez , 2020; Picheta and Yeung, 2020). There will definitely be comprehensive reflections and consequences of such a step taken by a super power like USA which played a very significant role in the establishment and financing of the WHO (Krisch, 2020). The institutions, norms and collaborations can hardly stand without the support and belief of the actors who established such institutions and norms (Patrick, 2020a).

Discrediting of the WHO in such a manner and debarring it from its sources during a period when the need to for the institution has never been this much before in terms of struggling with the pandemic will sure have adverse effects on taking the Coronavirus pandemic under control. It will be harder to struggle with the pandemics and health problems particularly in relatively poorer countries (Allen et al., 2020). Moreover, there is no international organization that is an alternative of the WHO at this phase. In such an environment, discarding them completely rather than the improvement of this and similar organizations and making them more effective through removing their deficiencies is a worrisome development (Simpson, 2016). It is a possible

development that a similar approach may spread to some other areas as well. If this approach is not stopped, solving many global problems for which collective attitude should be developed in the following period will be harder. The gaps to occur in certain regions of the world in terms of struggling with the pandemic have the potential to reaffect the regions, which are considered as successful in struggling, in the next periods. A similar approach applies to the common issues in terms of global governance such as environment, global warming and immigration. Trying to abstain with an isolating perspective instead of solving the global problems with a common approach may only bring a partial relief.

Another point of congestion concerning the management of the global crises is the status of the United Nations Security Council (UNSC). The only system having the power of intervention within the legal legitimacy to prevent the conflicts and wars in the world is UNSC. However, the disagreements within UNSC and the irreconcilable attitudes of five countries, which have the right of veto, against different crises nullify this organization at the point of preventing and solving international problems. A pressure is applied on this organization and the actors of the organization with the expression "World is Bigger than Five" under the leadership of Turkey's President Recep Tayyip Erdoğan. UNSC is underwhelming in the prevention and solution of the international problems particularly experienced in the last decade. And this incapacity has prevented the management of many crises such as Syria, Yemen, Libya, Democratic Congo Republic, Afghanistan and Sudan. While the world's crisis management approach is revealed after COVID-19, it will be appropriate to underline these deficiencies and faults. This crisis emerged in an environment full of serious current deficiencies and challenges, and we have to foresee that the crisis will deepen these challenges even more.

Different Approaches, Different Consequences on Global Problems

How the encompassing crises, such as the wars in the world politics and global economic crises are, managed and overcame will be effective on determining the codes of the order to emerge in the later period (Ikenberry, 2019). And the chaotic environment to emerge if failed to overcome these crises may gradually diffuse to many areas. Even the countries and regions that do not deal with these problems at the primary level in terms of the consequences are not able to isolate themselves from the effects of the international crises. Such problems, due to their origins, may be local, however have wider consequences. Since the problem affects different countries and different social segments with their different aspects, all actors will take steps according to their own priorities and capacities, and they will try to overcome this uncertainty and the crisis according to their own assessments. All actors handle the crisis with the aspects that mostly affect them; however, at some points, there may be gaps that cannot be filled without a broader cooperation and a broader coordination. The systemic crises and emerging gaps can be managed effectively through a collective conscious and collaboration.

The failure of the League of Nations experience which was formed after the First World War and the main reasons behind this failure are very enlightening even for today (Eloranta, 2011; Northedge, 1986). The role of the lack of support by the legislative bodies of the USA, which as a country was among the important supporters of the idea in the beginning, is significant in the failure of the idea of the League of Nations (Bailey, 1945: 84-86). The historian Mark Mazover, who has important studies on global governance, disagrees with the idea that the idea behind the League of Nations (LoN) died. According to Mazover, the United Nations is somehow the evolved version of the continuation of LoN. The issues and political discussions that were handled during the discussion of the league served as key sources and guidelines during the of the establishment of the UN organization and its idea (Mazorver 2009; 2012). Inability to develop a common understanding among the influential international powers of that period caused the failure of the League of Nations experience. The period between the two world wars has been recorded as an exemplary and unstable period in terms of many aspects. While some actors wanted to benefit from this instability and improve their activities and turn this uncertainty into an opportunity, some other actors have been crushed under these problems. The lack of institutions to facilitate the solutions of shared international problems and the lack of coordination and lack of security guarantees prevented the resolution of the problems in the world in a peaceful manner and facilitated the occurrence of the Second World War (Fenwick, 1936; Carr, 1951). This period constitutes an example close to the chaos scenario that we mentioned above.

The wars come to the forefront as a mean of solution and determine the direction of the change in cases where there is no common solution approach and resolution methods remain weak. This scenario has manifested itself many times in the past. Once for all, it was the actors who gave colour to the order, had an idea about this matter and put forward more resources and spent efforts to create this order. A similar situation will be experienced in the world after COVID-19. The actors who spend the most effort to eliminate the effects of the crisis and build a new order will have more effect on the formation of the characteristics of this new period. It would be an incomplete approach to think that these actors are only the states or international institutions. Global non-governmental organizations, religious actors, the business world, and even criminal organizations and networks can have more effect on the formation of the new period.

After the Second World War, the winners of the war did not fall into the mistake that they fell after the First World War. Particularly the Western actors led by the USA searched for the ways to establish a permanent and institutional stability in that period and an international institutional architecture that could provide stability in this period was created (Ikenberry, 2011; 2019). The United Nations (UN) and the organizations under the umbrella of the UN were supported particularly under the leadership of the USA in that period and ensured a partial stable period with the effect of the relative balance

brought by the Cold War order (Gilpin, 1975; Ikenberry, 2011; Krasner, 1976). These institutions have turned into important platforms in terms of managing the crises in the world according to the interests of Western states, in particular, for many years. With these institutions, the system that was tried to be established after the Second World War became permanent and many political and economic problems were tried to be overcome through these institutions. Managing the global economy in this way generated a stability in general. The countries that benefited most from this stability were the core countries of the global economy.

The conditions that occurred after the Second World War constitutes an example for the establishment of a new order in the countries that won the war. This order first evolved the Cold War into a bipolar structure, and then resulted in the collapse of the Communist bloc and the formation of a USA-origin liberal world order. This liberal order continued until the 2008 World Financial Crisis. Until that time, both the bipolar order of the Cold War and the USA and West-based liberal world order have formed a relatively stable situation in terms of global politics.

When the general situation of the world's post-Second World War politics and economy is examined, the crises that may structurally shake the political and economic order of the world are not encountered frequently. It is seen that the encompassing waves of instability, such as the First and Second World Wars, 1929 World Economic Depression and the 1918 Spanish Influenza Pandemic, have not been experienced for the past 70 years. The effects of 2008 World Financial Crisis were able to be managed under the leadership of the USA and European leaders. The crisis could have been largely limited with the formation of the G-20 mechanism along with the crisis and the coordinated measures of the G-20 countries. Since this limitation was made over the financial mechanisms, it could not show the same effect in non-economic areas. The economic crisis has been gradually stabilized; however, the effects of the expendable crisis on the political and social areas triggered the rise of far-right, far-left and populist political movements, all over the world. Although these developments caused a wave of instability and uncertainty in the Western politics, they did not directly or indirectly cause armed conflicts.

The attitude exhibited towards the 2008 World Financial Crisis manifested as a revision of the current global economic system. However, in this newly occurred system, China, Russia, Germany and many other countries tried to undertake more effective roles. And this quest has enabled the regional powers to play a more active role in the international arena. In addition to being a member of G-20 during this process, Turkey undertook more active and constructive roles in its region between 2007-2012. Against this, the negative progress of the Syrian Civil War, as well as the instabilities experienced in the Middle East and North Africa regions have restricted the constructive role that can be played by Turkey. The process experienced after 2008 has resulted in the revision of the system at certain scales with the attempts and

comprehensive efforts of the USA and Germany, in particular. However, failing to take the expected steps in the political and social areas and particularly the involuntary attitude of the USA, under the leadership of Donald Trump, on the maintenance of the global stability and the continuation of the liberal international system have deactivated the functioning and authority of the crisis management mechanisms. The world is encountering the challenge of COVID-19 Crisis in such an environment. Riots and protest acts were experienced in more than ten countries in the world within the year before the occurrence of COVID-19 pandemic. The wave of unemployment and instability that occurred after COVID-19 pandemic has aggravated the riots that occurred after the murder of black George Floyd in the USA by being exposed to police violence in Minneapolis. Although the uncertainty and instability that is caused by COVID-19 pandemic and still ongoing, the lack of common understanding and coordination among world leaders deepens the concerns about the management of the crisis.

Managing Global Conflicts in the Post COVID-19 World

In terms of its medium and short-term effects, COVID-19 crisis has the potential to have much more destabilizing effect in terms of world's politics. In the world politics, there are important processes that prevent/restrict the conflicts and contribute to the resolution of these conflicts. These processes can be briefly summarized as follows; the international institutions and associations such as the United Nations (UN), European Union (EU), G-8, G-20, Organization for Security and Cooperation in European (OSCE); international norms, rules and agreements; commercial and financial interactions that promote common interests and coordination between the countries; the leadership of a hegemonic actor or the international leadership vision and the formation of the commonsense and perception on common collective threat. Other elements can be added to the processes and mechanisms that assist in the resolution of the international crises; however, it has been seen that these mechanisms essentially come to the fore in solving the common problems. The most important problem about COVID-19 crisis is that none of these mechanisms has come to the fore and contributed to crisis management yet. Beyond this, when the recent discussions and irreconcilable attitudes between different international actors are taken into consideration, it is seen that the current institutions and processes will dissolve even more.

The current international institutional architecture being exposed to serious criticism about its failure to facilitate the resolution of the global crises for a long time is entering into a much deeper turbulence due to the effects of the Coronavirus Crisis. Although there is a need for a new structuring in terms of global governance after this turbulence, there is no actor yet as a candidate to undertake such a responsibility. In this context, there are some parameters that will determine the features of the next period and the management of the crisis. The questions about how these parameters will be shaped can be listed as follows:

- *When international crises arise in the next period, through which channels will these crises be handled and through which channels will the solution ways be sought?*
- *Which actors and institutions will determine the agenda of the international coordination and cooperation?*
- *How will the agreements be finalized and by which process and mechanisms will the compliance of the parties with these agreements be controlled?*
- *Will there be an arbitration and mediation channel to be activated for the conflicts?*
- *Who will cover the financing of these institutions and mechanisms serving for collective benefits and how?*
- *What will be the expectations of the actors who meet the financing and undertake a leading role in institutions?*

The answers to be given to the questions we mentioned above will determine how the crisis and conflicts will be handled within the future of world politics. Until here, we talked about the rapid exhaustion of the institutions and processes that contribute to the solution of international crises and problems. The directions of this exhaustion can be summarized as "revised internationalism", "a Chinese or other new actors-based order", and "controlled chaos scenario".

Revised Internationalism

Liberal internationalism (Dunne & McDonald, 2013; Beate, 2013; Ikenberry, 2009; 2018) approach, as a reflection of the liberal international relations paradigm, supports the resolution of the global problems through a common perspective and coordination around principle of multilateralism and joint interests (Blackwill and Wright, 2020). The comprehensive and encompassing decision-making processes, transparent and accountable institutions and actors, a resolution approach that tries to gain the common consent of the actors, and the perspective that tries to minimize the uncertainties through the coordination and communication method have been the distinctive signs of the global governance approach. We must reveal that also the institutions such as the European Union have been formed by being inspired from this perspective. The governance approach targets to handle the crises in a predictable and common perspective developable manner. It is seen that crises get deeper in the environments where there are no functioning communication channels between the parties and the parties perceive the steps of each other as a pessimistic attitude. The governance approach includes the norms that it tries to establish, mechanisms that prioritize the shared interests and an approach to ensure stability and resolve problems with the institutions that provide transparency and controllability of this entire process.

Having a basic objective of trying to generate transparent, predictable, participatory and controllable crisis solution mechanisms between the parties, this approach mostly result with bulky bureaucratic structures. The bureaucratic

processes surely increase the predictability, however, the operation of these processes and mechanisms in the world's politics only require the consent of the actors to this structure. The actors who see themselves above these rules and control mechanisms do not comply with and respect these processes. For today, the rapid dissolution of the institutions and norms established after the Second World War and the weakening of the global governance approach are related to this. The ones who built and formed the system now believe less that outcomes that can serve their own interests will result from these mechanisms. The new and effective actor in the increasing number and the transparency requests coming from outside make it difficult for these institutions to produce results in favour of the founding actors. For this reason, the actors in the USA and Europe no longer want to undertake the burden of the institutions and organizations like before. The essential paradox here is this: The institutions and norms influenced by all actors will be more participatory and encompassing, however, such processes will both make it difficult to come to a decision and also decrease the support of the actors, who see themselves above the system, to these channels.

The bottleneck that we are experiencing offers opportunities in terms of the reformation of the system that does not function properly. If actors such as the USA, European countries, Russia and China desire to transform the system in a more participatory manner for such an approach, then there is consciousness and awareness for this. In order to enable this system to become operational again, it should be handled with a more participatory and multicultural approach under the leadership of the key actors from the USA and European. In the USA, particularly the liberal and some realist international relations experts claim that the leading position of the USA in the global system can only continue with such an approach (Kissinger, 2020; Patrick, 2020b). The global governance approach, which is the extension of the liberal internationalism targets to handle the crises in a predictable and common perspective.

USA, in order to protect its role in the international system, may prefer extending the life of the existing order by actualizing the burden and responsibility sharing option with its existing allies. This option can slightly open the doors of a deeper and bilateral relation with its allies. In the new period, it may reform its supervisor role in the international system over its normative and rule setting role and financial resources, not through its military power and hard power. This approach is a very risky strategy in terms of keeping the actors in competition with it under control. However, with such a strategy, it may be possible to keep the competing actors under control with a wider coalition and by certain mechanism. By this means, they can provide more support to the American initiatives in multilateral channels such as the UN, and particularly from the Western actors. However, at the same time, this will mean that the USA would limit its power around certain norms, too. This will mean restraint in Iraq, Afghanistan, relations with Israel and many more critical international operations. Reconsideration of the international system on a consensus basis will ensure the improvement of the legitimacy

of this system that is subjected to the criticism such as "The World is Bigger than Five". On the other hand, a more participatory approach and authority sharing will also mean cost and responsibility sharing, as well.

There are some questions and gaps that come to the forefront concerning the scenario of subjecting liberal internationalism to revision. How efficient can the decision making and implementation be conducted in such a complex and participatory environment? and How will the bureaucratic obstacles and inefficiencies will be handled? How will the power gap filled in the areas where the American and Western actors withdraw? If a power gap occurs, will this gap be filled by the competing actors or will it be controlled by a common approach? If the tension triggers new conflicts during the filling of these gaps, how will these problems be handled? All these uncertainties are the factors that make the scenario of revising the liberal internationalism challenging. Another issue is how the countries that do not believe in these values will approach to the institutions and norms that are planned to bring the democratic and participatory values to the forefront. The approach of the actors such as Russia, China, etc. that are considering the liberal governance and internationalism as an extension of the Western hegemony to this change is a sensitive subject. China gradually articulated to the system after 1970s and strengthened its role and position within this system. However, China has never fully accepted the ideology and logic of the system of liberal governance. And the position of Russia is not different. The Soviets prevented the operation of the system during the Cold War period, and then Russia took a clear attitude against the liberal internationalism shortly after 2000s. Either way, the rehabilitation of the current liberal governance approach and the improvement of the West-based international organizations are not easy as it seems. At the initial stages there may be more confusions and uncertainties.

Beyond all these discussions, if the leaders, such as Donald Trump in the USA, who do not believe in these values and institutions, continue to be on duty or if this approach cannot find support in the legislative channels of the important countries, it will be impossible to ensure the change. It is true that global crises such as COVID-19 provide some opportunities for the rehabilitation of dysfunctional or problematic institutions, however, the important actors should show their political will and should take new initiatives in order to actualize such a positive transformation and reform initiatives.

Throughout the world, particularly in an environment where liberal politics has weakened, liberal, conservative democrat, social democrat and mainstream parties have lost ground, instead left and right populism and nationalism have come to the forefront, and it will be harder to maintain a liberal governance model in the coming years. In a crisis environment, many countries and leaders bring the approaches, which bring the interests of their countries to the forefront and ignore their international responsibilities. Current political crises can be prevented through the new approaches that bring the social solidarity, common interests and human needs, not through the individual

measures or market-privileged economic steps. The effective political actors of the new period will either actualize this approach in their domestic politics or they will express such a populist statement louder. In any case and under any condition, a situation where the liberal approaches and international cooperation and coordination become more difficult in the post COVID-19 world.

All these internal and external parameters and changing power configurations in the world's politics make it difficult to protect and even to improve the liberal internationalism and global governance approach. The mentioned model has brought relative stability to the world's politics for many years after the Second World War; however, it is not possible to keep this system in its current form and configuration. After this point, the essential critical attitude will be the attitudes and approaches of the actors who lead the establishment and operation of this system. An improved and revised UN system and an internationalism approach that is redefined on the basis of common interests give more hope than the other scenarios. For important regional powers like Turkey, the probability to play more effective roles in such an environment and provide contribution to the resolution of the regional crises will increase.

Chaos Scenario

The changes that will be experienced during and after the COVID-19 pandemic will demonstrate itself first in the field of economy. The instability experienced in the field of economy will then trigger the reformation of the politics. The instability experienced in Europe, America and many economies of the world and the collapse of the markets will have serious political ramifications. The tensions experienced due to the increased unemployment and income inequality will cause new protests waves and conflicts in the European cities and the USA. The protest wave that took start in France with the yellow vest movement has the potential to expand to many other cities and countries due to the increasing unemployment, poverty and economic uncertainty. Furthermore, these protests will not only affect the immigrants; the ethnic, religious and racial minorities, but also the majorities under the grip of unemployment and increasing income inequality that would lead to the evaporation of the middle classes all over the world. If the current risk cannot be managed properly, then it can lead to a deep economic and political depression in the centre of world's politics and the world's economy. The effects of this depression may also spread to the rest of the world.

The chaos scenario is about the indifference of the actors, who are leading in the world's politics, to take constructive initiative for the solution by showing willpower. However, there are still some institutions operating although the deficiencies in the current international system. Although these institutions cannot fully solve the international problems, they contribute to mitigate the effects of these crises. Keeping health, food security, humanitarian aid, meeting basic human needs, defending the human rights agenda and the

global climate changes related agenda alive on the international channels can be possible with these institutions. At the same time, the transnational non-governmental organizations contribute to these international institutions. Particularly rich countries and probably the transnational companies transfer resources through these institutions and non-governmental organizations. The humanitarian status will be worse if these institutions and actors are completely excluded or their access to the resources is limited.

Limiting the activities of these institutions and organizations in the global system and limiting the resource transfer of the government to these institutions and organizations has the potential to deepen the global humanitarian crisis. In general, the COVID-19 pandemic is deepening the income inequality in the world, and creating an environment where employment opportunities are limited (Furceri et al. 2020; Barro et al., 2020). Furceri et al. (2020) reviewed the previous SARS; Ebola, H1N1; MERS and Zika, etc. pandemics, and they revealed that particularly the low educated segments were relatively negatively affected by the contraction in the employment opportunities after the pandemics. Another research carried out in the USA revealed that particularly the social segments that are socio-economically disadvantaged were disproportionately affected by COVID-19 pandemic (Van Dorn et al., 2020). The states that are unable to meet the health and economy related expectations of the disadvantaged social segments in particular will face serious legitimacy crises. It is a strong possibility that the wave that is more effective than the global wave of protests in 2018 and 2019 may occur after COVID-19 period, because in many countries, the governments were ineffective in finding solutions to the health and economic dimensions of the crisis.

Another development that will stimulate the conflict dynamics in the world's politics is the fact that the pandemic will increase the fragility of weak and fragile states (IMF Country Focus, 2020; United Nations, COVID-19 Response, 2020). Many countries such as Iraq, Lebanon, Yemen, South Sudan, Afghanistan, Syria, Libya, Democratic Republic of Congo, Somalia and Malawi that currently experience conflicts within themselves and the states in the Central America do not have the necessary infrastructure and capacity to struggle with this crisis. This will deepen the fragility of these countries that are already experiencing deep rooted conflicts and instabilities. The humanitarian dramas and immigration waves will increase when they cannot cope with the pandemic and similar situations. In these countries, it may not be possible to provide health services, food safety and basic supplies. In such an environment, encountering new waves of protest and conflict or experiencing collective deaths is a possible scenario. Another issue is the possibility that a new immigration wave that will take start after the humanitarian crises possible to increase after the crisis particularly in low-income countries (European Asylum Support Office, 2020) may disturb the stability in other countries. All these developments can trigger wider scoped instability in the world.

The economic problems that may get deeper due to COVID-19 pandemic, increasing political fragilities and disruptions to occur in governmental

structures and security mechanisms can complicate the political and economic problems. The power gaps that may occur in the following period will increase the political and military competition between different actors and even the possibility of conflict. It is possible that the chaos scenario may be actualized even for a short time as a reflection of the change. More important issue is what the validity time of this scenario will be, what will be the expansion of its scope and which steps will the important political actors of the world take and face with these problems.

The thing that will disperse the chaos scenario into different areas and increase its permanency by layers is the abstention of the actors in the world's politics to face with these problems by not taking any initiative. If cooperation and coordination between the critical actors cannot be achieved against the occurring crises, then the crises may become structurally permanent. If the global actors become ineffective against the chaos scenario, then the local and regional actors will try to fill the gap that occurs in this case. The shift of the problem-solving mechanisms to the local and regional level can weaken the possibility of creating fair and permanent solutions and convert the problems into a structural violence. The instability and chaos scenario may not be as deep as the period between 1919-1939; but as this process gets longer, we have to foresee that the problems will become more elaborate.

Crisis Management in a Chinese Dominated World?

Another prediction on change concerning the world's politics is the interpretation that the global power will increasingly shift towards China in the coming years (Mahbubani, 2020). Such a power shift was experienced more apparently over the past decade. If this shift happens too fast, it will open the way for a new Asia centred globalization wave. We should foresee that also this scenario will comprehensively transform the management of global crises all around the world. Asia-centred globalization will be a very different model than the liberal globalization that we are accustomed to. A freedom and transparency-based globalization can be replaced by a security and stability-based globalization. The leaders and groups promising stability particularly in Afghanistan, Iraq and many countries will find support of China and other actors. The global freedom agenda will be put on the second plan in such an environment.

Particularly after the election of Xi Jinping as the President of China in 2013, China takes even more confident steps in the international politics compared to the previous periods. The expectations on that COVID-19 pandemic will accelerate this shift. It is a very weak possibility that China goes into its shell and become introverted again after this stage of its globalization. Stepping back in an environment where Chinese companies, banks, press organizations and mega projects such as the Road and Belt Project spread across the world and entered into a competition platform with the established multinational companies

will create much greater problems for China. The strategy of continuing the export-based growth model also results with some responsibilities for China. Although it has adopted an aggressive growth and expansion strategy by partially ignoring these responsibilities, it would not be surprising to see that particularly the USA will take more effective steps to restrict China. Global power shifts are generally tensile, and even confrontational. In the following period, the competition between China and the USA may escalate in the South China Sea, Africa and some other regions, and this escalation may go up with the inclusion of other actors. In an environment where China is blamed and held responsible for the COVID-19 Pandemic, it is likely that Chinese opposition (Synophobia) will increase in many countries.

Under the light of these developments, it is possible to talk about three different approaches that China may adopt in the coming years. China may help the world economies recover by providing development aid (Kaplan, 2020); it may become introverted or may increase its competition with the USA and the West. At this point, the main parameter that will determine the attitude of China will be the approaches of the USA and Europe towards China. Determining China as a competitor for the global hegemony struggle, the USA, in any case, will try to prevent or balance the global power shift towards China. Without any doubt, this approach will increase the tensions between China and the USA at critical points. The reaction of China against a possible surrounding and exclusion will determine the possibility of the conflict. However, it is also a fact that the decision of the global supply chains and production infrastructure to gradually exclude China will restrict the constructive participation of China in the existing system and will increase the criticisms.

A China-centred world system will be much more hierarchical and multi-layered compared to the liberal world system. Among these layers, the state security and stability will always be in the front of the priority of freedom and welfare. China will want to operate the international organizations and be effective in those organizations; however, it is not realistic to expect a flexible multilateralism and egalitarian participation approach to be actualized within an institutional structure dominated by China. It is the general approach of China to defuse the institutions which it cannot penetrate into and direct or treat these institutions without any care. The main important point here is that China is still defined as a puzzle or a fully non-understandable actor by many actors. This position of China causes the handling of its attitude towards the global problem solution with suspicion. The Chinese reality will become more evident at every stage of global politics after COVID-19 period. If China decides to play a more active and constructive role in the solution of the global crisis, then this reality will begin to be perceived more positively and will open the door to a brand new order. Otherwise it will contribute to a confrontational transformation or chaos scenario.

Conclusion

COVID-19 Pandemic is the most comprehensive problem the World has encountered since the Second World War. No entity or actors active in the world politics has been able to exclude itself from the direct or indirect effects of this crisis. On the other hand, we are at a stage where the crisis is still not taken under control. The current crisis will accelerate the change process in the world politics and increase the uncertainties. The main parameter that will determine the direction of this crisis and the transformation in the global system in connection with this will be the behaviour and attitude that the current actors will adopt in this subject. If this attitude progresses on the axis of cooperation, coordination and collaboration, then the probability of being successful in struggling with the factors underlying the current crisis will increase. In other words, there is the possibility to reach a more stable world order in the medium and long-term. Another scenario is an order where Asian-centred or local and regional actors are more prominent. With their positive and negative aspects, such scenarios can reveal an order in which local values and local institutions are more prominent. This will mean the changing of the global governance model we are accustomed to.

An Asian-centred globalization option will reveal a configuration where the security and stability emphasis in the world's politics is highly reflected. This scenario may have its own strengths and weaknesses in itself, but in such a case, the global problems are likely handled in a more hierarchical and top-down manner. The elements of the liberal international order such as the human rights agenda, the promotion of liberal values, and the establishment of the order through the institutions and norms can be put aside in such an order. Instead of this, a system where decision is taken according to the power hierarchy, at the same time where the common interests are emphasized through the manufacturing and trade can come to the forefront. With a constructive role, the economic funding of the global development and the normalization process after COVID-19 may reveal more constructive and positive results for both China and the countries that China will support. It should not be forgotten that if there are no other forces balancing China, then China will want to shape the world's politics in the new period with much more aggressive approach. In a China-centred international system, the formula for stability is the balance.

The most worrying scenario is the dominance of the chaos scenario due to the neglect, differences of opinion and competition of the actors in the politics. In such a scenario, the declining features of the current international order will be neutralized more quickly. Although this scenario may come to the agenda temporarily, the possibility to permanent damage is high. The most accurate approach for Turkey will be reading the situation well within the frame of alternative possibilities and make constructive contributions to the formation of the new order.

Acknowledgement
I would like to present my appreciation to Merve Dilek and Halil İbrahim Alegöz for their contributions to this study.

References

Acharya, A. (2020, Nisan 18). *How Coronavirus May Reshape the World Order*. The National Interest. Retrieved from: https://nationalinterest.org/feature/how-coronavirus-may-reshape-world-order-145972

Allen, J., t, N., Garrett, L., Haass, R. N., Ikenberry, G. J., Mahbubani, K., . . . Walt, A. M. (2020). *How the World Will Look After the Coronavirus Pandemic*. Foreign Policy. Retrieved from: https://foreignpolicy.com/2020/03/20/world-order-after-coroanvirus-pandemic/

Bailey, T. A. (1945). *Woodrow Wilson and the Great Betrayal*. New York: Macmillan.

Barro, R, Ursua, J., & Weng, J. (2020). *Coronavirus meets the Great Influenza Pandemic*. VoxEU.org.

Blackwill, R. D., & Wright, T. (2020). *The End of World Order and American Foreign Policy*. Council on Foreign Relations: Retrieved from: https://www.cfr.org/report/end-world-order-and-american-foreign-policy

Beate, J. (2013). *Liberal Internationalism: Theory, History*, Practice. New York: Palgrave.

Boin, A., Hart, P., Stern, E., & Sundelius, B. (2016). *The Politics of Crisis Management: Public Leadership under Pressure*. Cambridge: Cambridge University Press.

Campbell, K. M., & Doshi, R. (2020). *The Coronavirus Could Reshape Global Order*. Foreign Affairs Retrieved from: https://www.foreignaffairs.com/articles/china/2020-03-18/coronavirus-could-reshape-global-order

Carr, E. H. (1951). *The Twenty Years' Crisis, 1919-1939: An Introduction to the Study of International Relations*. London: Macmillian.

Drezner, D. W. (2020, Mart 30). *The Most Counterintuitive Prediction about World Politics and the Coronavirus: What If Nothing Changes?* The Washington Post. Retrieved from: https://www.washingtonpost.com/outlook/2020/03/30/most-counterintuitive-prediction-about-world-politics-covid-19

Dunne, T., & McDonald, M. (2013). The politics of liberal internationalism. *International Politics, 50*(1), 1-17.

European Asyslum Support Office (2020). EASO Special Report: Asylum Trends and COVID-19. Retrieved from: https://easo.europa.eu/sites/default/files/easo-special-report-asylum-covid.pdf

Eloranta, J. (2011). Why did the League of Nations Fail? *Cliometrica, 5*(1), 27-52.

Fenwick, C. G. (1936). The "failure" of the League of Nations. *American Journal of International Law, 30*(3), 506-509.

Furceri, D., Loungabi P., Ostry, J.D., & Pizzuto. P. (2020). *COVID-10 Will Raise Inequality If Past Pandemics are a Guide*. CEPR Policy Portal. Retrieved from: https://voxeu.org/article/covid-19-will-raise-inequality-if-past-pandemics-are-guide

Furceri, D, Loungani, P., Ostry, J. D., & Pizzuto, P. (2020). Will Covid-19 affect inequality? Evidence from past pandemics, *Covid Economics,* 12, 138-57.

Gilpin, R. (1975). *U.S. Power and the Multinational Corporation: The Political Economy of Foreign Direct Investment.* New York: Basic Books.

Green, M., & Medeiros, E. S. (2020). *The Pandemic Won't Make China the World's Leader*. Foreign Affairs. Retrieved from: https://www.foreignaffairs.com/articles/united-states/2020-04-15/pandemic-wont-make-china-worlds-leader

Haas, R. (2020). *The Pandemic Will Accelerate History Rather Than Reshape It: Not Every Crisis Is a Turning Point*. Foreign Affairs. Retrieved from: https://www.foreignaffairs.com/articles/united-states/2020-04-07/pandemic-will-accelerate-history-rather-reshape-it

Hoffman, J., & Vasquez, M. (2020). *Trump Announces End of US Relationship with World Health Organization*. CNN Politics. Retrieved from: https://edition.cnn.com/2020/05/29/politics/donald-trump-world-health-organization/index.html

Ikenberry, G. J. (2009). Liberal internationalism 3.0: America and the Dilemmas of Liberal World Order. *Perspectives on Politics, 7*(1), 71-87.

Ikenberry, G. J. (2011). *Liberal Leviathan: The Origins, Crisis, and Transformation of the American World Order*. Princeton, NJ: Princeton University Press.

Ikenberry, G. J. (2018). The End of Liberal Order? *International Affairs, 94*(1), s. 7-23.

Ikenberry, G. J. (2019). *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order after Major Wars*. Princeton: Princeton University Press.

IMF Country Focus. (2020). COVID-19 Poses Formidable Threat for Fragile States in the Middle East and North Africa. Retrieved from: https://www.imf.org/en/News/Articles/2020/05/13/na051320-covid-19-poses-formidable-threat-for-fragile-states-in-the-middle-east-and-north-africa

Irwin, N. (2020). *It's the End of the World Economy as We Know It*. The New York Times. Retrieved from: https://www.nytimes.com/2020/04/16/upshot/world-economy-restructuring-coronavirus.html

Kaplan, R. D. (2020). *Coronavirus Ushers in the Globalization We Were Afraid Of*. Bloomberg Opinion. Retrieved from: https://www.bloomberg.com/opinion/articles/2020-03-20/coronavirus-ushers-in-the-globalization-we-were-afraid-of

Kissinger, H. A. (2020). *The Coronavirus Pandemic Will Forever Alter the World Order*. WSJ Opinion. Retrieved from: https://www.wsj.com/articles/the-coronavirus-pandemic-will-forever-alter-the-world-order-11585953005

Krasner, S. D. (1976). State Power and the Structure of International Trade. *World Politics, 28*(3), 317-347.

Krisch, N. (2020). *COVID, Crisis and Change in Global Governance*. Verfassungsblog. Retrieved from: https://verfassungsblog.de/covid-crisis-and-change-in-global-governance/

Mahbubani, K. (2020). Has China Won? The Chinese Challenge to American Primacy. *PublicAffair*.

Mazarr, M. J. (2018). Building a Sustainable International Order Project. Santa Monica, CA: RAND Corporation. Retrieved from: https://www.rand.org/pubs/research_reports/RR2397.html

Mazower, M. (2013). *No Enchanted Palace: The End of Empire and the Ideological Origins of the United Nations*. Princeton University Press.

Mazower, M. (2013). *Governing the world: The history of an idea, 1815 to the present*. Penguin.

Northedge, F. S. (1986). *The League of Nations: Its Life and Times, 1920–1946. Leicester*: Leicester University Press.

Nye Jr., J. S. (2020). *No, the Coronavirus Will Not Change the Global Order*. Foreign Affairs. Retrieved from: https://foreignpolicy.com/2020/04/16/coronavirus-pandemic-china-united-states-power-competition

Patrick, S. (2020a). *When the System Fails: COVID-19 and the Costs of Global Dysfunction*. Foreign Affairs: Retrieved from: https://www.foreignaffairs.com/articles/world/2020-06-09/when-system-fails

Patrick, S. (2020b). *The World Order After COVID-19 Hinges on What Kind of America Emerges*. World Politics Review. Retrieved from: https://www.worldpoliticsreview.com/articles/28751/the-world-order-after-covid-19-hinges-on-what-kind-of-america-emerges

Picheta, R., & Yeung, J. (2020). *Trump Announced the US will Pull out of the WHO. What Does that Actually Mean?* CNN. https://edition.cnn.com/2020/05/19/us/trump-who-funding-threat-explainer-intl/index.html

Rapp-Hooper, M. (2020). *China, America, and the International Order After the Pandemic*. War on the Rocks. Retrieved from: https://warontherocks.com/2020/03/china-america-and-the-international-order-after-the-pandemic/

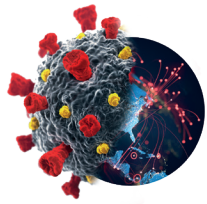
Rudd, K. (2020). *The Coming Post-COVID Anarchy: The Pandemic Bodes Ill for Both American and Chinese Power—and for the Global Order*. Foreign Affairs. Retrieved from: https://www.foreignaffairs.com/articles/united-states/2020-05-06/coming-post-covid-anarchy

Simpson, E. (2016). *This is How the Liberal World Order Ends*. Foreign Policy. Retrieved from: https://foreignpolicy.com/2016/02/19/this-is-how-the-liberal-world-order-ends/

Summers, L. (2020). *Covid-19 Looks Like a Hinge in History*. FinancialTimes. Retrieved from: https://www.ft.com/content/de643ae8-9527-11ea-899a-f62a20d54625

United Nations, COVID-19 Response (2020). COVID-19 in Fragile Settings: Ensuring a Conflict-Sensitive Response. Retrieved from: https://www.un.org/en/un-coronavirus-communications-team/covid-19-fragile-settings-ensuring-conflict-sensitive-response

van Dorn, A., Cooney, R. E., & Sabin, M. L. (2020). COVID-19 exacerbating inequalities in the US. *The Lancet*, *395*(10232), 1243-1244.



Post-COVID-19 Period and New Institutional Politics in Turkey

Abdurrahman Babacan

Assoc. Prof. Abdurrahman Babacan

Assoc. Prof. Abdurrahman Babacan completed his Ph.D. at Department of Political Science and International Relations, Marmara University. After working as research assistant at Marmara University Institute for Middle Eastern Studies for five years, he started to work as faculty member at Istanbul Medipol University Department of Political Science and Public Administration in 2016. In 2019, he became an associate professor in Political Science. His research interests are political philosophy, Turkish politics, political theory, global politics and economic philosophy.

Post-COVID-19 Period and New Institutional Politics in Turkey

Abdurrahman Babacan
İstanbul Medipol University
ababacan@medipol.edu.tr

Abstract
Politics and political processes on the institutional ground is being deepened simultaneously with the change in the content and form. With the transition to an institutional culture based on a democratic norm that includes social dynamics, a new institutional political ground stands out, in which institutions emerged depending on the distribution of political and socio-economic power in society. The structural transformation of the state as a central institutional actor is, then, a product of this ground. A new phenomenon of change exists, indicating new perception regarding politics with a more participatory, more flexible, more social-based and more value-content. The situation in Turkey, while pointing to the ground not irrelevant from this explanation; however, it points out a structural basis that cannot be disconnected from its exclusive realities, created by its special context. This is an institutional basis shaped by the conflict of envision between the "statist center" and the "societal center". At this point, it can be said that, in the process of institutional change of politics for a while, along other reforms, the Presidential system is a new phase in terms of a paradigmatic change regarding the mentality of the executive and the possibilities of operating the system based on sensitivity, effectiveness and flexibility on an institutional and administrative basis. This new institutional politics on the grounds of the administrative processes in the trajectory pointed out by the COVID-19 process in Turkey, is leaning to a pattern of interwoven keywords: coordination, governance. In this context, the concrete practice in Turkey, regarding what COVID-19 and post-COVID-19 periods show in total, is leaning on a base that identifies this new administrative model as the strategic path of its institutional politics.

Keywords
Institution, state, conventional politics, presidential system, coordination, governance, COVID-19, new institutional politics

Introduction

A brief period marking the transition from 2019 to 2020 will be remembered as a long period when the world was shaken by a global shock the likes of which the world had never seen recently. In this respect, and with the existential impacts of what it involves, COVID-19 has placed itself right at the center of the existential journey of humanity at a time when modern world engaged in a discussion of moving forward to very different horizons. It has become a major subject in many academic studies how global politics will come out of the turbulence it found itself in or how this could reflect on the national politics or, in a wider sense, on individual and social life.

Parameters such as the efficiencies/inefficiencies demonstrated by governments in the process, real consequences of the globalization practice, pros and cons of the phenomenon of global governance, performance scales of international institutions have produced significant outputs that require a general review of the process from the viewpoint of world societies. A reason for this is that this global pandemic involves shocks that point to an existential crisis that encompasses the fundamental elements of human life (i.e healthcare, poverty, social justice, social policies, economic life, values, and institutions).

This article, essentially, makes an inquiry into what COVID-19 shows us. While doing this, it aims at starting a line of analysis as to how this issue reflects on Turkey and, from there, on the manner in which the institutional politics operates. The article claims that, right at this point, this line of analysis, in and of itself, will present us with the direction of perspectives in this new political ground. We have based the article on two main frameworks. The first one is the section that covers theoretical/conceptual arguments and, the practices that emerge under their guidance. The article will discuss the formation, inefficiencies and facilities of institutions will be discussed based on the meaning and roles of institutions, dynamics that constitute the re-genesis and different

explanatory models. Not only will this allow us to reflect on the dynamics and causes of the state of crisis we are witnessing in the case of COVID-19, it will also provide us with an opportunity to evaluate and interpret the direction which the Western liberal institutional politics has taken from the perspective of the position of the government as central institutional agent. The second part is where the case of Turkey will be discussed. Primarily, inquiry will be made into where traditional/conventional politics stand in the experience pool of the recent political history of Turkey within the context of conjectural dynamics. Starting from this point, the way in which the constitutional-institutional change brought about by the Presidential Government System reflects on the political environment will be further investigated in light of the COVID-19 process. What is this process of change dictating a new form of politics both on a global and a national scale telling us about institutional politics after COVID-19 within the context of conceptual blocks such as governance and coordination? This is the final question we will discuss. This series of questions will fundamentally offer an insight on where Turkey stands in terms of an understanding and practices of institutional politics as well as how a future projection can be made on the matter.

Conceptual Ground: New Institutional Politics

Institutions and Institutional Politics: What is New?

Among other explanatory models utilized in conceptual discussions of political science, the institutional politics approach stands out a model that is rich in parameters it involves and that triggers stimulating discussions. Such much so that, as it handles phenomena related to doing politics with a multidisciplinary approach rather than from a one-dimensional analytical perspective, it also turns the dynamic picture offered by these disciplines into a gain in the course of its own internal revision. Additionally, it may be asserted that, with a structure that comes and goes between theories inherent in the fields of sociology, economics, history, anthropology and management sciences, it contributes significantly -contrary to common belief- to the formation of a dynamic political perspective. From this point, while the theoretical framework that surrounds the main inquiry of this article requires reliance upon the perspective of institutional politics, we must first and foremost express that our understanding of institutionalism is not static. On the contrary, what we mean by institutional politics is a new form of understanding which is influenced and shaped by different parameters and which does not exclude the dynamic process.

The new institutionalism perspective that emerged from a mutual interaction between sciences that have pulled away from the formal limitations of the traditional understanding institutional politics and stressed the importance of institutions since the second half of the 20th century has recently become the theoretical framework relied on in political-social-economical analyses. Particularly, after it was seen that traditional causality, which regards “the

government that has a static position and its inherent rules and procedures as independent variable and administrative operations in democracies as dependent variable" fails to work (Rhodes, 2006: 94), the new institutional politics perspective gathered momentum. Arguments for development which thinkers such as Montesquieu and ending of formal institutions were smashed by two major global crises, namely the Great Depression and the Second World War while the legitimacy of the established institutional regulations and operations were under serious questioning. This was also the questioning of the Enlightenment internally because the relationship between political institutionalism and development described using formal rules is also a direct product of the Enlightenment idea. When Acemoğlu and Robinson (2004: 87) pointed out, years later, that political and economic institutions have to be *inclusive*, not *inclusive,* they also underlined that fact that one of the major conditions for this is the adoption of an institutional culture based on democratic norms that include social dynamics. So much so that institutions form, develop or deteriorate depending on how the political and socio-economic power is distributed in the country/society -which also shows the scale of democracy-. From this perspective, the institutions turn into apparatuses that emerge as dependent, not independent, variables unlike the main premise of historical institutionalism. In other words, causality changes direction:

Institutions governed by formal rules → administrative operations in democracies

↓

Social needs/interests, social interaction, power distribution in society (democratic norm) → institutions

March and Olsen's (1984: 738) definition of "institutionalism" based on this new approach of institutional politics also signifies this new understanding. An approach to institution redefined to include non-verbal habits, value judgments and social-institutional moral understanding in a much wider sense than merely the formalism of written rules, represents a domain which is capable of changing the policy of the said system fundamentally. This is, in essence, a definition emphasized by the new sociological perspective of institutional politics because while it claims that the *utilitarian* and *individualistic* methodology in the way behaviouralist and rational choice theories perceive politics is deficient and inaccurate in defining political institutions and politics, it also points to the value-centered descriptions in political analysis as the direction that politics will take. One reasons is that, according to sociological institutionalism, both models impair the political ideals and lean on a formalism that excludes the thesis that institutions provide a meaning system for politics. They achieve this either by relying on empirical/observable phenomena (behavioralist theory) or by relating the political sphere directly economic rationality theory (rational choice theory). That is to say, political ideals are kept out of analysis.

However, normative rules as regards the political institutions are capable of causing transformative impact on the way political life operates and on the perspectives and behaviors of political actors. And this new phenomenon called the "new politics" draws its power of expression and effectiveness from this world of norms and meanings. The institutions rise from this foundation and assume new functions in this new political setting. This is because, as structures that hold value in and of themselves, emerging as products of social needs and pressures (Selznick, 1957: 5) and consisting of rules shaped by stability, values and behavioral patterns (Huntington, 1968: 12), they transform politics, they also act as dynamic and functional organisms capable of transforming beyond their own accumulation of experience (Soin and Huber, 2013: 261). Weber (1978: 41) describes this functionality from viewpoint that regulates social relations, limiting potential preoccupations that comprise personal interests by reducing diversity in behaviors and directing these toward common good.

This is, in a way, a description that is consistent with the abovementioned function of institutions to create meaning and value for politics.

It may be possible to examine the hypothesis that institutions are a product of social interaction and historical events or experience through Moore's (1966, p 67-68) approach where he compares the examples of England (democracy), Germany (fascism) and Russia (communism) as three different outcomes of institutional and political development. This is because in these countries, it is evident that the dynamics that govern the emergence of the aforementioned types of political system are dependent on a political institutionalization originating in close connection with the presence or efficiency of a strong middle class and the way agricultural-economic relations are organized within the context of the period in question. In a similar vein, Easton (1957:383) defines the political system as a subsystem of society, while pointing out that they are, in essence, the determining factors of the political system as they determine the interaction of cultural and socio-economic dynamics with institutions-social actors. As the recent world history showed us, political and economic institutional structures are undergoing changes due to certain socio-economic and political processes at the macro level. As can be seen in such cases as the new forms of poverty brought about by an economic downfall like the Great Depression shaking the political structures of those countries from their foundations or, at a time when all envisioning of an established order are shattered after the Second World War, as the welfare state being replaced by monetarist, political economy visions (Peters, Pierre and King, 2005: 129).

The national politics which took its share of the global transition after 1980 revised its relations with the birth and transformation of political institutions and political-social-economic actors by calling attention to informal conventions rather than formal and to cultural factors rather than legal. For instance, the relationship between the administrative perspective of the Özal period and the bureaucratic institution in that historical episode is, in this aspect, largely connected with this structural-theoretical dimension

as well as with Özal's unique character. In other words, while there is a new definition of relationships between institution, actors and phenomena, it is also a topic of discussion how these institutions resist change. One example worthy of attention in this sense is that the World Bank switched its discourse to institutional development/transformation and good governance after 1980. In other words, this is a different understanding of the notion of "separation of powers" which the English political system raised upon being reinterpreted from a much more dynamic perspective of institutional transformation in Montesqiueu's *The Spirit of the Laws* (Kalkan, 2015).

The arguments of historical institutionalism that view change from a very static perspective as something that is rarely seen and, when it is, has only limited influence have lost their credibility even within the very same theoretical framework today. Furthermore, considering the projections of the system theory which argues that different inputs coming into any political system will transform that system and, even further, of the modernization theory that claims that change is essential let alone possible (Lip set, 1967), it would not be an overinference to say the phenomenon of change in institutional politics is now undergoing a serious transformation. In this aspect, as Hall (1993: 288) puts it, institutional transformations are essentially a product of a mutual interaction between the state and the society, which signifies a transformation within context. The complete overthrow of institutions and replacement with a brand new institutional setting -which is a change of context- happens in the wake of exogenous shocks (i.e disasters, wars, economic crises, epidemics, famine) (March and Olsen, 1984: 643). From this point, the world in general and Turkey on a national scale has been experiencing a reflection of a contextual transformation in the state, the institutions and their inherent rules for a while and, at the same time, it has been preparing itself to confront the dramatic changes that this contextual transformation will bring about in the post-COVID-19 period.

What needs to be done at this point is to adapt the requirements of this new institutional politics to specific items. In fact, we can see that this practice is, in a way, being tested by the profound sociological-political-economic challenges Turkey has been facing in recent years. In its experience with refugees for about 8 years, Turkey witnessed the concrete outcome of a reliance on this form of execution. The mobilization and dynamic operation of institutional politics following major natural disasters such as earthquakes have also produced results inherent in the new understanding of institutionalism. And finally, the COVID-19 process has brought the new institutional understanding and type of politics to the test as a body of practices where manifestations are assessed more profoundly and, this time, also systemically. A more detailed discussion of these will be offered in the section where the Turkey case will be examined.

COVID-19 and the Central Institutional Player: The State

At times of major instability and insecurity, it is commonly considered natural and rational that societies fall back upon the state as the centre of power because a safe exit from such crises depend on reliable information and trust in public institutions. However, while a more introversive dynamic -naturally- develops with the global pandemic of COVID-19, the states/governments also became the object of a mass discontentment and rage due to their inefficiencies and weaknesses in saving human lives in the same process. How, then, should one interpret the role of the institution of state in events of such global crisis within the context of social existence?

Since 1952 when it was first published, the *UN Report on the World Social Situation* has been periodically reviewing the state of affairs on the global scale and advises the states and supra-state institutions. These reports on trends in different periods are documents that reflect the dominant politics of a given historical episode. And the preface of the report issued in the early 1980s when the welfare state collapsed and was replaced by a new form of socio-economic and political vision pointed to the emergence of a brand new discourse:

> *Economic failures of the recent history not only failed in meeting the expectations, but also revealed the limitations of the nation-state as the governor of socio-economic change.*
>
> *In parts of the world where the governments are facing the challenging task of building a nation and a permanent economy in particular, social and political instabilities emerged in various forms. This took the form of corruption in private and public behavior at the same time. Weakening of various forms of authority and accepted values that binds individuals together gradually created greater individual freedoms and a more fragile society at the same time." (UN, 1982: 1-2).*

In the UN report that followed in 1985, the main emphasis was the general trend in the development of institutional politics and its reflections on the implementation of the new dynamic:

> *In recent years, the potential role of the private sector in the execution of public services - fire protection, police protection, provision of daycare, retirement home facilities, ambulance service and even the construction and management of private prisons- have started to draw appeal again. The US resorts to this kind of service more than any other country. Only in 1980, 66.8 billion dollars were spent on local and state level" (UN, 1985: 93-94).*

The main responsibilities of the welfare state, as classified in three dimensions of welfare are described as healthcare, education and food. At this point, healthcare appears as the provision of adequate and equally accessible healthcare services, public health measures and a network of social security mechanisms. In the words of Mishra (1990: 19), it is the responsibility of the state to ensure the provision of "security network" services on a social level.

In parallel with this, the World Health Organization (WHO) had defined health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" in its early years (UN, 1952: 22). Therefore, the state institution was included in the practice of being apparent in many areas of social existence. So much so that, in the welfare state period, the core countries and many semi-periphery states were steadily expanding their domains to areas of social activity which had previously been defined as "non-state". The state was gradually stretching the boundaries of its responsibilities via public enterprises gaining momentum, a macro-economic management, social engineering that aims at regulating economic and social activity and preventing social disasters by means of specialized institutions and a mode of operation where the state takes attempts to act as guarantor for the provision of welfare (King, 1983: 8-9). And this was where the crisis started. The increasing burden of public expenditure that the governments had to resort to in the economic conjuncture shaped by oil and debt crises of 1973 were putting a strain on budgets which made economic downfall inevitable.

In its efforts to increase welfare, the state was now facing the social discontentment caused by unemployment and impoverishment which were the results of a serious economic crisis. The state failed to improve welfare and equality and not only did this actual state cause social disintegration and divide but it also set the stage for reactionary social movements. The social divide manifested itself as anti-immigrant sentiment, racism policies and the deep fracture caused by social inequality. And the reactionary social movements become evident under the themes of inequality and poverty. For instance, the "welfare rights movement" in the US was a movement in reaction to the fact that 50% fewer African-Americans received *Medicaid*[1] and Medicaid did not cover 40 percent of the poor who would have potentially been eligible to receive it (Hollingsworth, Hage and Hanneman, 1990: 160). This movement was later joined the African-American movement protesting against the structural unemployment and the poverty of African-Americans in the northern cities (Piven and Cloward, 1977: 331). The result was a return to the policies to increase welfare in response to these reactionary movements and the establishment of "community healthcare centers" for the purpose of providing personalized healthcare service to the poor people in the northern cities (Ehrenreich, 1978: 66). However, as the budget deficit grew due to these measures, the reaction at the bottom finally surfaced and it was then the point of no return in the struggle for the welfare state.

The main issue here is that this wave of social protests against the system laid the groundwork for the re-politicization of issues such as healthcare service, poverty and welfare which had become relatively depoliticized after the Second World War. At this point, the framework that defined the functions and responsibilities of the state as an institution shifted from the social to the political ground (through the politicization of the clash between the state and the market). And this would in the medium term mean the minimization of the

[1] Federal and state support program for provision of healthcare needs of underprivileged social segments.

state's operational flexibility by means of pushing it to a static formalism with regard to the execution of institutional politics. Indeed, the situation went far beyond this in the medium term: the state, which had always been central and at the top since the beginning of the modern world system, was deactivated and lost most of its ground for the first time. The political background of the state-market conflict aside, the problem here is that the state tends to utilize its structural resources inefficiently and via a static, strict bureaucratism. And this was what brought the downfall in the first place. With the anti-welfare movements, a new socio-economic political demand was strongly voiced first in the USA, then in Europe. So much so that, neither the social democratic corporatism of Sweden, nor the socialist government of Mitterand in France had the vision or strength to break the efficiency and strength of this demand. Although the role of other financial resources (relation-family network, religious institutions, charities and non-governmental institutions) in increasing welfare become partially visible in the political arena, the functions and domains of these institutions which did nothing more than complement the execution of institutional politics remained exceedingly limited.

This process of political mobility which the institutional politics underwent created an externalizing effect which also undermined the trust in the democratic institutions in the West. This inefficiency of the democratic institutions was, for some, a sign of a passing era: namely, the post-democratic period. While the democratic institutions were identified as entities that assumed their meaning and function through the social groups and social policies of the welfare state, this downfall now led to the questioning of the faith in institutional politics which drew its strength from the democratic environment. Furthermore, the Western societies, who faced the inefficiencies of the new institutions in resolving social problems, now had their belief in democratic institutions and democratic institutional politics largely weakened. This was because the failure of the democratic philosophy that is centered on the individual to resolve social issues was clearly visible. And a series of proposals were now being put forward which combined social perspectives with a new model of governance. Likewise, the need for a new model aiming at the fact that the passive citizenship role merely based on relationships of voting and representation must change and the social demands must be dealt with through a decision making mechanism in which the society is better involved. In this respect, the new meaning assumed by the notion of citizenship was expanding to include the right to the share in the general welfare of the society rather than merely the right to participate in political decision making (Ambrosius and Hubbard, 1989: 127). In other words, the problem was now more than just a political conflict between the state and the market. The fact that trends analysis we mentioned above in the 1984 UN Report on the World Social Situation came to this point as of late 90s pointed, in fact, to the structural limitations of market individualism in dealing with the major social issues. That is to say, to think that the inefficiencies of the welfare state would be remedied with the new public enterprises handed over to private institutions was a great illusion for individuals and the society in the

context of Western liberal democracies.[2]

However, Fukuyama (2006: 98) would answer the question why the victory of liberal democracy had not yet been achieved years after his theory of the end of history by referring to the conceptualization of "weak/failed state"[3] with reference to the failure to establish a strong institutional infrastructure in non-Western societies due to the inadequacy of the state capacity.[3] However, the problem here is not a crisis that concern non-Western societies, rather the reality experienced by the Western democracies and Western institutions. Indeed, some of the recent quantitative studies demonstrate that, in the Western liberal democracies (England, the USA, the Netherlands, Germany, Spain, France, Australia, New Zealand), young people's view of democratic values and their faith in the effectiveness of institutional-political leadership in solving social problems is on a downward trend (Foa and Munk, 2017: 6-7; cited by Alkan, 2019). Moffitt (2017) points to the emergence of a trend in Northern Europe that is committed to traditional liberal values, yet introversive and populist when it comes to recent issues (immigration, refugees, Islamophobia, the EU ideal). In this sense, the fact that the far right in Europe has increased their vote from 8% to 12.5% on average after 2000 (Akkerman et al., 2016; cited by Alkan, 2019) is indicative of the new path politics has now taken. So much so that the most distinctive common feature of these far right parties is that, rather than being fascistic in the traditional sense, they gain ground via populist reactions and stress on social issues and institutional inefficiencies based around the social problems of the ordinary European citizen and offer solutions that prioritize social protection policies (Alkan, 2019). It is worth stressing that the reality brought on by COVID-19 has a lot in common with what the said form of policy-making points to.

Is the trend back toward the welfare state, then? Or should it be? First and foremost, it must be said that there are very few governments that are sufficiently equipped to deal with large scale problems (poverty, violence, terror and ecological degradation etc.). Many of them are in deep crisis. Their ability to develop policies toward solving the problems that an ever-changing world produces is currently largely weakened under the effect of emerging global dynamics.[4] In other words, while the states are still the main institutional actors in the global arena, they are not alone (Evans, 1997: 65). They have to maintain their activities on a new plane where their institutional structure is influenced by a system of networks which the social theory calls the "network model". That is to say, on a global scale, the world is experiencing a political practice where the business world, NGOs, micro-ethnic groups and even crime syndicates exert influence. However, the governments are hierarchical in terms of their institutional structure which makes it fairly hard for them to

[2] As we will analyze in more detail in the section where the case of Turkey will be discussed; with its diversification of the actors of institutional politics and the political functions they produced and its demonstration of a model of coordination and governance between them, Turkey was able to draw a different path in the face of the crises that broke out.

[3] This term is essentially used for states which prove incapable of dealing with the social, economic, political crises and events that the country faces.

[4] New technologies, for instance, are a very strong globalizing element, they can also be the source of an effect that promotes political and social disintegration by facilitating the union of fragmented identities and interest.

adapt to new network relations. As of today, non-governmental structures - some of which have positive impacts and some negative - are at the height of their careers both in terms of their number and effectiveness. And the NGOs in particular, increased their involvement in institutional politics on the global and national scale and now they can now exert influence in official decision making processes. So much so that, globally speaking, the NGOs provide more official development aids than the entire UN system -except IMF and the World Bank- and they provide a number of services that governments in many countries fail to provide such as urban and rural development, education, healthcare and social support services (Rosenau, 2008: 274). The question, then, whether the solution is a return to the welfare state, will not be a valid one. The reason is that we do not have a single, absolute answer to absolute determinations. This new setting of institutional politics necessitates a vision by which many different elements work together in a coordinated model to make policies and put them into practice. We will now try to illustrate this, in the case of Turkey, by specific examples within the context of the indicators from the COVID-19 experience.

Institutional Politics in Turkey and its Line of Progress

Where Does Traditional/Conventional Politics Stand?

To understand the political tradition in Turkey, one must look beyond the left-right or ruling party-opposition party conflict. In this approach, which would mean a deeper investigation, it can be said that there is a deeper separation that can essentially be described as "statist centre" and "social centre". Along the line that stretches from the modernization in the Late Ottoman period up to the foundation of the Republic, we have a picture of a sort of "oligarchy-democracy tension" where two different political cultures form two separate lines. The Modern Republic was dominated by an elitist civilian-military bureaucracy made up of a staff that succeeded the Ottoman bureaucracy in the institutional sense and that assumed the role of the architect and protector of this modernization movement. The resulting institutional picture was a tension between the Jacobin political vision comprising bureaucrats, intellectuals and academics aspiring to transform the society and another political vision of representative bodies centered on social demands and sensitivities and advocating that the functions of the state must be designed to address these demands.

The dramatic difference between the First Parliament and the Second Parliament formed after the election on April 8, 1923 in terms of political distribution was the telling sign of the bureaucratic tutelage that was deepening/being built. One reason is that the composition of the First Parliament reflected a blend of intellectuals, bureaucrats and representatives of various social segments, the composition of the Second Parliament presented a picture where 70% of the members of the First Parliament were absent and 58% of this new parliament

was previously public officers (Yücekök, 1983: 163-167; cited by Alkan, 2019).[5] According to Karpat, the dissolution of the Parliament on April 1, 1923 and decision to hold the elections on April 8 was clearly an act of liquidation:

> *"The victory against the Greeks and the promise of international recognition soon to be acknowledged in the Treaty of Lausanne made it possible for the modernists-positivists in the First Group to take complete hold of the government and to purge the democrats in the 'Second Group'." (Karpat, 2017: 128).*

He also describes the events surrounding Ali Fuat Cebesoy, one of the important figures of the First Group as a step taken in circumstances where the constitutional majority could not be met to liquidate the Second Group:

> *"In the extraordinary general meeting of the Grand National Assembly on April 1, 1923 Sunday, it was requested that the motion regarding the renewal of the election of Esat Bey, the MP of Aydın and his one hundred and twenty fellows be urgently finalized. This motion was only signed by the members of the First Group and the MPs in Ankara." (Cebesoy, 2007:363).*

So much so, that the Second Group, who had a significant influence in the Parliament, decided to protest against the elections by declaring and announcing that the dissolution was a violation of the constitution. Tunçay (1981: 50) underlines the fact that this decision of election was taken by simple majority while it should have been taken with two-thirds of all the votes as per the constitution (*Teşkilat-ı Esasiye*), which is against the constitution.

This historical series of events point to a legitimacy problem and is worthy of examination as regards its implications on the political context. This is because while the precursors of the government philosophy and practice based on civilian-military bureaucracy was being designed in Turkey, a succession of military coups that follow the transition to the multi-party system and constitutions drafted by the military which are the products of interim regimes created a kind of institutional oligarchy in the country. Indeed, the stage that enabled the military coup of May 27 was set by the civilian-military bureaucracy, intellectuals and academics. The constitution of 1961, the amendments of 1971-1973 and the constitution of 1982 emerged as institutional structures that reflect the political vision of a narrow circle of staff enabled by interim regimes. Almost all mechanisms and institutional-structural blockages directed at restricting the governing capacity of the legitimate representative bodies of institutional politics formed the basis for the constitutions of 1961 and 1982. Indeed, among the institutional constructs that aim at restricting the movement of politics and reinforcing the tutelage of the statist bureaucracy, the re-establishment of the constitution of 1961 drafted by the National Security Council and Constitutional Court, the 1971 amendments by the Military Court of Appeals and the reinstitution of the Presidency under a tutelage structure were the products of the 1982 constitution.

[5] For detailed data and competent analysis, see: Demirel, A. (2017).

This conventional setting on which institutional politics stands in Turkey became the leading factor causing major crises and instabilities through the history of the Republic and, in the shadow if the said tutelage institutions, the failure to construct an effective executive and administrative power.

The Presidential System and the Institutional Change in Politics

Within the context of the above arguments, when explaining the negative impact of the traditional tension line in Turkey on administrative processes and institutional politics, we must underline the fact that it is not something that can be explained by a mere technical decision to be made between models of parliamentarism, presidential and semi-presidential systems. This is because the determining factor is the world of meanings and the policy vision which not only the debates of theoretical literature but also the changes and practices on institutional scale lean on. However, one other issue that has to be placed in the same context is that the ways the parameters of the institutional politics inspired by this vision are designed have direct influence on the execution and practices of politics. In this sense, without ignoring the traditional context of politics discussed above, the systems debate in Turkey must be considered from this institutional perspective.

We must first state that we have a political tradition where a paradigm shift in the executive structure is capable of great impacts. So much so that, it is possible to see that even merely technical concerns may produce dramatic variations with multiplier effect, but then again, institutional politics fail to operate in circumstances where there is no sensitivity toward the administrative process, even in a well-configured system. While we think that an analysis of institutional politics independent of the above conventional setting is impossible, an examination of how and under which circumstances the executive politics could be expanded would bring with it a paradigm shift in the internal structure of this conventional context. From this perspective, the debate that centers around the Presidential government system ought to be directed at the how a system could be operated based on sensitivities, efficiency and flexibility on institutional and administrative scale.

In an institutional model where the central government and local government work solely and in coordination, an increased emphasis on collaboration instead of tutelage, on the appropriate and legitimate distribution of authority and on coordination and on the role of coordination in policy-making and implementation processes would lead that system to institutional success.

It is seen that the Presidential system is designed as a model that, with respect to the structuring of the central government, stipulates independent and/or semi-official organizations directly working under the ministry in different and micro-level issues and an executive structure based on efficiency, coordination and flexibility not only through the direct executive power of the ministries, but policy committees, presidential offices, thematically configured councils as well. Indeed, this is an institutional structuring where not only

the representatives and executives of the political arena or the institutional bureaucracy but also, within a flexible structuring extending to the civilian domain on different levels of authority, NGO representatives, academics, specialists from various fields and representatives of special committees will be able to influence decision making processes. Also, the functional organization and the model of horizontal collaboration between state institutions that is necessary depending on which area of service it is, is yet another parameter which would cause the institutional politics to differentiate to a large extent.

The main philosophy in the institutional structure of local authorities that are situated on the other end of the system is the efficient provision of public services and a healthy operation of the coordination between local and central governments both in terms of speed and efficiency. This systemic operation raises the necessity to strengthen the structure of the local authorities both in the administrative and financial sense. The appropriacy, effectiveness and swiftness of public services can be ensured via this fundamental condition. Additionally, by means of sub-committees and units the can be formed under local authorities, the provision of these public services and the assessment of public demands and sensitivities will be conducted systematically.

At this point, Alkan (2018) emphasizes that the authority to issue a Presidential decree in relevant areas under its power, is a natural and necessary outcome of this system for the operation of the system in general and to ensure the effectiveness of the executive body and states that the political processes will run through the institutional formulations of the new system. As implied by the institutional theory: institutionalism is closely related with the presence of norms, rules and values beyond individual interests and, while it draws its strength from reality, it grows and takes root in political life through the process and influences patterns of behavior, preferences, even turning into a value in itself.

COVID-19 and Parameters of New Institutional Politics in Turkey: Coordination and Governance

At this very moment in history, we are confronted with a new political context. Turkey has been running a new political process both in its visions and in the perspective of change in institutional structures and the practices of this perspective. In Buchanan's (1962) words, what is being pointed at is not the rationale of preferences, rather the institutional structure shaping those preferences. And this put before us a new policy. The central point in question here is the conceptualization of the social nature of the institutionalized system of government. Another question that confronts us in the same context and which is inherent in this matter is whether the "sociological network" that runs through institutions is operational or dissolving. And how are we to interpret this?

Circumstances that are caused by the trend of globalization give rise to the obligation to cope with new political, social and financial realities on the part of countries and societies. Coping with this relatively complex and deep

phenomena, the strategies adopted by the institution of politics are also transformed. The need for a multi-agent governance mechanism is growing in harmony with the complexity of these phenomena. As pointed out by Fenger and Bekkkers (2007: 15-16) we are going through a period that is shaped by increased functionality on the part of local authorities, private sector and its affiliates, NGOs, institutions and development agencies with semi-public legal entities as subsidiary agents of a central state bureaucracy that will be implemented in public services in a more flexible and dynamic way. This is a gradual process. This process the main philosophy of which is coordination is based on the ambition of creating a state of balance in social relations by means of directing individual preferences and the motives that underlie these preferences toward collaboration through a set of rules in order to make way for social collaboration. Therefore, the philosophy and practices of institutionalism revise and reconfigure their strategies and structuring in line with this ambition.

For instance, the common pattern we see in both the handling of the refugee problem in recent years and the way the aftermath of disasters are managed has been the functional use of AFAD, which is a public legal entity, the active role of the Red Crescent ("Kızılay") which is association with legal entity working for the public benefit yet subject to private law and the involvement of NGOs and private organizations working in various fields in these processes. This new administrative model underlining the establishment of the institutional infrastructure of this social collaboration is now starting to specialize on dealing with such crises in Turkey. And this is taking place in a context that is highly dependent on a set of principles defined as governance and its system of rules. This is a model that describes the processes of social functions which are run solely or in coordination by various institutions. Unlike governments that ensure obedience by means of privileges such as ruling and constitutional regulations, the efficiency of the rule systems of governance arise from traditional norms and customs, informal covenants, common reference points and practices that invite people to comply with instructions.

Evidently, the public administration mechanism and the context of institutional politics in Turkey are entering a phase of remodeling in this sense. While an internal transformation is being achieved in the structuring of the central government, the relations between the central and local government are also on the table. The central government now adopts a perspective of institutional transformation in line with the improvement and operationalising of the synchronization of authorities and responsibilities between institutions and with the enhancement of activity and accountability in administration by deepening the processes of participation and governance. In other words, this is, as we described above, the establishment of an institutional infrastructure constructed by a governance model involving a wide array of agents including the central government, local authorities, NGOs, private sector and its subsidiaries, non-profit organizations (Eryılmaz, 2012:43). Considering that it is people themselves and their mental adaptation which will put this into

practice, it is inevitable that we have an agenda that is inherent in legislation on the other end of the matter. In other words, the natural practice that regards the legislation from the perspective of a strict formalism will be an executive picture that manifests itself as a problem in the form of evading responsibility, refusing to take initiative, difficulty in adapting to change, hindering efficient and active administration in terms of speed and effectiveness. While an effort is being made to rebuild the institutional infrastructure of the system, one must take it into account that this problem which is at the heart of the matter, will be the most serious structural barrier in the process. The bureaucratic tradition which the above traditional/conventional context of politics in Turkey primarily presents us with a reality that branches out of this.

On the other end of the matter, as we discussed, stands the direction and depth of the relations between the central and local government. The number of areas where local authorities have direct authority in Turkey is 11; that of areas where the central government has full authority is 23 and the number of areas where these two have joint authority is 15. In the financial sense, the share of local authorities in the provision of services is 15% (Toksöz et al., 2009; cited by Alkan, 2019). Local authorities are considered as administrative units at an advantage in terms of their functions and structures in improving integration with society.

Indeed, on a global scale, the international development agencies have been encouraging governments to collaborate with local authorities in order to design effective development strategies since the 1980s. The need for revision in public administration institutions to improve efficiency and effectiveness was one of the central issues mentioned in The European Charter of Local Self Governments approved in 1985 (Commission of the European Communities, 2001). One reason for this is that democratic institutionalism is a phenomenon that is reinforced and carried forward by coordinated collaboration among different units in decision-making and execution (Wickwar, 1970: 74). And, as Hill (1974: 22) puts it, this can only be possible with an understanding of political institutionalism where there is strong participation to political processes. The relationship between local dynamics and democracy is a subject widely discussed by Anglo-Saxon thinkers such a Locke, Hume and Mill. Hayek (2011: 196) also states that local authorities are the most essential factors that make up a democratic society, after private sector. Richards (1983: 167) points out that, as implied by the theory of democracy, coordinated collaboration with the local authorities in meeting the social and economic needs of the society and the individuals will possibly produce positive results. Integrating this thought with people-oriented value perspective will enable countries and cultures to create their unique way of doing politics. Such harmonization and an integrated/compact mode of execution are now inevitable in dealing with the new forms of crisis and poverty created by the post-industrial society.

Another component of this integrated form is the civil society. Now, a broader definition is used for civil society that assumes new roles and responsibilities

within the new conceptual frame of institutional politics: an institutional body engaged with vital areas of activity such as the provision of social services, healthcare, youth, education, environment, disabled citizens and development, in a wide array of entities including voluntary organizations, think-tanks, social movements, citizen initiatives, unions, associations, chambers and human rights institutions. In fact, we see that, in the state tradition of the political philosophy that walks hand in hand with natural law since Aristotle, the concept of civil society is used interchangeably with the state. The reason is that the civil society is a conceptualization that represents the entitlement of individuals in the public sphere and paved the way for the social contract theories of the 18th century. Indeed, Locke and Hobbes position the state and the civil society as alternatives to the "state of nature". And maybe with an exception: Locke goes one step further and draws out a system of rules/principles for the state-civil society relationship, while he does not sever that connection completely. Edwards (2008: 47) assigns the civil society three main functions that are economic, social and political, Van Tuijl (2016: 3) elaborates on this by pointing out its contributions to the improvement of democracy and social justice as a balancing factor against the state and market players in a political society and its role of preserving values such as solidarity, trust, collaboration, tolerance and social capital.

Indeed, in a democratic culture, the state and the civil society ought to work in mutual interaction reinforcing each other; and seeing these two as opposite concepts is now becoming a thing of the past. This is because an awareness that a dynamic that would reduce the impact of crises could only be reached through this means is becoming more apparent everyday. And this, in essence, make is obligatory to establish relations among individuals and between the individuals and the institutions based on trust (O'Ne-ill, 2002: 65). This trend also has recently manifested itself in the changing character of the social policies. With the structural transformation experienced by the state which has historically been the strongest agent in the face of poverty and humanitarian crises, the social policies are now being executed in increasing coordination among local authorities, civilian and religious organization (Marshall, 1965: 48). In that sense, rather than the welfare state rising from its ashes, we are witnessing a form of politics dominated by new orientations and approaches. In this new context, a part of the practices of social politics is being transferred to the civil society and local units. This presents us with a hybrid bundle of advantages: bringing synergy that combines the flexibility of the civil society and the historical experience and infrastructural strength of the state, without getting lost in cumbersome, inefficient whirlpool of bureaucratism. This is also a process that improves the functionality of the notion of social capital as an element of the civil society and re-thematising it at the same time. Strengthened, diversified social capital of higher quality reveals the importance of civil society in dealing with social and humanitarian crises. In countries that lack such structures of civil society and therefore horizontal trust and solidarity networks cannot be constructed in the society (Fukuyama, 2001: 87), it is more likely that the states exert negative influence on the social capital. And this leaves the society to its fate in the face of humanitarian and social crises.

What, then, does COVID-19 tell us in light of these parameters and analyses? First and foremost, this global outbreak has pointed to the state capabilities, trust and good governance instead of regime types as effective factors in dealing with crises. The general trend in the societies is, naturally, a strong impulse to take refuge in a state mechanism that can ensure their safety in terms of living conditions. And at this point, the importance of the efficiency of public healthcare system and the soundness of its institutional infrastructure brought to the fore. As Stiglitz (2020) puts it: *"When we are faced with a natural disaster or an epidemic, we turn to the government/state again; because we know that such events require collective action."*

The global pandemic of COVID-19 also provided us with a direct and indirect lesson on the need to strengthen the political institutions in a country. The direct lessons can be taken from the shocking pictures coming from different countries. The indirect lesson, on the other hand, is that we are reminded again of the fact than even the leadership of a country can be infected in such vital crises. Exactly as what happened in the Spanish Flu outbreak of 1918 and other major outbreaks in history. The extent of political institutionalism in a country, in the final analysis, determines the state of affairs in that country and the political risks either grow or are absorbed. For countries where with low levels of political and economic institutionalism, periods of such vital crises may result in a power vacuum in that country as well as major social, economic and political collapse brought on by a sudden reversal of the political structure that depends on the political-economic elite. In this respect, the importance of an institutional system that complements the institutional powers of the state structure with effective management and protective economic and social policies has been confirmed for all countries and societies.

In this framework, another complementary parameter for the factors inherent social policies such as public health and basic services and for protective economic policies has been the prominence of the security/public order perspective. One reason for this is that the operation of any historical system depends on a minimal public order -safety of life and property- at the very least. If the level of security is not high, the production system will not operate as well as the delivery and distribution of goods, which will make it more difficult for all political-cultural institutions to operate. The damage to be caused by the breach of confidence in the state could, in this sense, be dramatic.

The healthy and transparent operation of public relations is another aspect of the problem. And it can be achieved through institutional infrastructure and effectiveness. Keeping the public informed regularly and in a transparent way is a critical parameter that will not only prevent the escalation of vulnerabilities but also ensure the material, social and mental standing of the society by instilling trust. Otherwise, as we can see in a number of global concerns and uncertainties regarding China, it could lead to a state of social paranoia and aphasia where people cannot be reassured about their worries for the future.

Another issue is the national capabilities of countries. In other words, the significance of an investment strategy to serve the facilitation of daily life in different areas relying on a national philosophy emerged in the context of a global outbreak where the countries closed their borders and the nations are left to their own fates.

In summary, in times of such deep crisis, the main problem is to ensure the healthy, active and coordinated operation of the eco-system made up of different sub-elements (public healthcare, food, transportation, energy, security, public relations, mental management, economic support, supply chains etc.) in a given country. And this active and coordinated work mechanics is a criterion and function of the strength of institutional politics in that country. Indeed, this experience has shown to us that the structure of policy-making, too, is undergoing a dramatic change. So much so that the fundamental, vital and socio-economic decisions to be made on the future of a country are left not only to a group of politician-bureaucrats but also to private-technical information systems and their institutional agents. This also underlines a new form of politics where technical expertise and scientific knowledge is in the foreground. For instance, the policy-oriented pandemic strategy adopted in the early stages of the process in England can have such an influence that can urge the government to change its strategy based on reports of a scientific organization or an academic authority (King's College).

Within the context of this pandemic process, Turkey's stand was to designate the new administrative model characterized by coordination and governance as depicted above, as the main strategic path of institutional politics. In this respect, Turkey demonstrated a preliminary experience of this model of institutional politics especially in the supervision of the refugee problem after 2016 and in the administration that followed the natural disasters (as seen in the earthquake in the city of Elazığ in early 2020).[6] As its theoretical framework was outlined in the introduction of this article, this is a hybrid model of institutional politics. And this could be the new model for development. An integrated public activity stands out in the strategy to deal with the vital threat of COVID-19. In the course of this process, we have witnessed an integrated institutional public policy adopted by shareholders such as research and development units (centres, institutes) working on healthcare, social security system, education (teachers, universities, vocational schools), local authorities, semi-public legal entities, social support units, environment protection units, religious officers, agricultural industry, Turkish Armed Forces, internal security units, defense industry, communication channels, institutions of transportation and supply, energy organizations, chambers, unions, loans and dormitories institution, youth centres, old people's homes and nursing homes and NGOs. This is because a public policy is something that cannot simply be reduced to welfare services. Through this model, it can be imagined as a mechanism that ensures consistency between the ways in which the above

[6] The Ministry of Interior was responsible for the institutional coordination in the Elazığ earthquake. For detailed information on this: https://www.icisleri.gov.tr/elazig-depremi-sonrasi-yapilan-tum-yardimlar

vital, social and economic needs/requirements are supplied by means of these shareholder institutions.

To put it more plainly, Turkey has successfully drawn for itself a path of institutional structuring with its system that can be operated in a model where the investments on healthcare infrastructure and service capacity under the collaboration between public and private sector and through its model that enables coordination between institutions. This coordination model among the Ministry of Health, the Ministry of Industry and Technology, TÜBİTAK (The Scientific and Technological Research Council of Turkey), TÜSEB (Health Institutes of Turkey), private sector and NGOs, for instance, created a result-oriented and motivating dynamic in efforts to produce and distribute a Turkish-made respirator and develop a vaccine. A similar model was adopted in the production of protective equipment and a output of production and supply was delivered where swift and effective results were achieved in coordination with the vocational schools, municipalities, Turkish Armed Forces (TSK) and private corporations. These production processes was made possible by improving domestic production capabilities in coordination with the Presidency of Defense Industries, public-private institutions that are the shareholder in the healthcare sector, the Ministry of Science and Technology and the relevant NGOs. And as such, the path of institutional politics that was adopted in Turkey provided us with a significant model that shed light on the direction the post-COVID-19 would take in terms of the future importance of investment strategies in the national context.

Another important point worthy of mentioning is the transparency public consultation, communication and exchange of information. Under the supervision of the General Directorate of Public Health of the Ministry of Health, *Pandemic Influenza National Preparedness Plan* initially developed in 2019 in light of the data, and lessons learned, from the influenza pandemic in 2009 was finally established with the participation of 33 academics who are specialized medical doctors in various fields. The said plan manifested itself as an institutional system through which deficiencies in patient management were corrected, technical and human capacities were increased, financial resources were improved, organizational units were formed and the public communication strategy was enhanced. So much so that the institutions that took part in the operations of this structure were the General Directorate of Public Health, General Directorate of Public Hospitals, General Directorate of Emergency Healthcare, General Directorate of Health Services for Borders and Coasts, General Directorate of Healthcare Information Systems, General Directorate of Health Improvement, General Directorate of Management Services, General Directorate of Legal Services, Provincial Health Directorates in some metropolitan cities, Ministry of Justice, Ministry of Family, Labor and Social Services, Ministry of Energy and Natural Resources, Ministry of Youth and Sports, Ministry of National Education, Ministry of National Defense, Ministry of Agriculture and Forestry, Ministry of Commerce, Ministry of Transportation and Infrastructure, Presidency of Disaster and Emergency

Management, Presidency of Religious Affairs, Turkish Red Crescent and Council of Higher Education (General Directorate of Public Health, Ministry of Health, 2019). Indeed, two months before first recorded COVID-19 case in Turkey, on January 10, 2020, Coronavirus Science Committee was formed as an advisory board made up of 38 scientists and in charge of supervising all preventive, protective, diagnostic and treatment processes as well as public health communication in advisory capacity. The fact that this process was managed in this way is a phenomenon that as the implementation of a governance strategy based on information and technical expertise as detailed above. Similarly, the immediate, transparent and varied communication, information and caution strategies of the Ministry of Health have been a significant functional practice that reinforced public communication.

In addition, Uluslararası Sağlık Hizmetleri A.Ş. (USHAŞ - International Healthcare Services) founded last year for the purposes of coordinating the activities of public and private sector in the field of health tourism, offering guidance to the Ministry as regards the policies and strategies on international healthcare services also played an active role in material supply. Another example of this coordination was that private hospitals took an active role in the course of the pandemic and functioned as executive agents of the public policy on maintaining public health in coordination with the Ministry of Health without seeking any financial profit.

Another mode of practice which opened up new horizons was *Vefa Social Support Groups* made up of real and legal entities from the different segments of public-civilian-private sectors in coordination with governorates and district governors, working to provide for those older than 65 years of age and with chronic illnesses that are not allowed to go out. These groups consisting of the police force, gendarmerie, neighborhood wardens, AFAD (Disaster and Emergency Management) officials, Turkish Red Crescent (Kızılay) officials, municipality personnel, teachers, imams and civil society representatives provided a significant example and vision of institutional coordination for the establishment, reinforcement of the sociological network in society and the healthy operation of social cooperation. From this perspective, it was a concrete example of the governance model whose theoretical framework is outlined above. The data published by the Ministry of Interior demonstrated that Vefa Social Support Group received a total of 7.132.453 phone calls from March 22, 2020, when they started their activities to May 13 and these social support groups responded to the needs 6.694.461 people (Ministry of Interior, 14 May 2020).

Another significant act of institutional coordination was that Turkish citizens brought from abroad in coordination with the Ministry of Foreign Affairs were offered accommodation in the dormitories of Student Loans and Dormitories Institution under the Ministry of Youth and Sports. Based on the data announced by Mehmet Muharrem Kasapoğlu, Minister of Youth and Sports, a total of 77.441 people have been lodged in dormitories in 76 provinces

since the start of the quarantine. Also, the healthcare staff and the staff of the Ministry of Justice are lodged in the Ministry's dormitories as well as the patients in dormitories identified as *Social Isolation and Observation Centre* under the direction of Provincial Health Directorates. Based on the announced data 1294 are currently staying in 29 dormitory directorates identified as Social Isolation and Observation Centres in 20 provinces (Ahaber, 23 May 2020).

Another important chapter in the process was the special interest shown to old people's homes and nursery homes both private and affiliated with the Ministry of Family, Labor and Social Services. Indeed, considering the dramatic death rates from Western countries as a result of the size of the elderly population and inefficiencies in the social protective policies, this process was a clear confirmation that Turkey has a sounder institutional infrastructure and administrative processes. For instance, a systematic precaution and protection policy was followed against coronavirus in all 426 old people's homes, public and private, where 27.500 old people are staying. Furthermore, steps to ensure income security for citizens, policies to maintain security and hygiene in workplaces as well as preventive measures in childcare institutions were put into practice in coordination and collaboration with the Social Security Institution, the Ministry of Health and all relevant NGOs (Toklucu and Baygeldi, 2020).

The major unifying factor in the entire institutional system along with the social solidarity and collaboration -as in all other processes- was the civil society. The active roles of NGOs as structures that have close links to the target groups due to their work practices and are therefore familiar with their needs not only helped to handle the situation as a whole, but also, as we discussed, became evident as the practical application of an effective public-civil society collaboration. NGOs became visible as structures functioning in a wide variety of contexts including transparency and appropriacy in information, local solidarity networks, social and technological initiatives, special mergers for the disadvantaged communities. For instance, the *Molecular Biology Association* established a "coronavirus emergency action team" and announced that it had equipped the laboratories with devices necessary for the application of more than 50 tests a week. In the context of the virus, temporary mergers were formed in order to identify the disadvantaged groups (healthcare professionals, employees, elderly people, refugees and prisoners) and propose policies in specific areas. Apart from its own institutional aid organization -which, based on their own data, ran a large scale aid campaign which helped 312.716 people in two month in the course of the process- (İHH, 2020), *İHH* and the youth unit acted in coordination with Vefa Social Support Groups with its entire organizational structure throughout Turkey to help coordinate the identification and aid efforts in the field. Again, the *Deep Poverty Network* founded for in this same process is a structure that finds and organize supporters for families that have lost their jobs, their securities or those that cannot work in the process. From an innovative and scientific perspective, an entity called *Coronathon Turkey Initiative* -among its shareholders are the

Ministry of Science and Technology, Turkish Informatics Foundation, TOBB (The Union of Chambers and Commodity Exchanges), Boğaziçi University, Middle East Technical University and Istanbul Technical University- was established as a structure that involves a coordination model directed at the technological and innovative path that Turkey follows both in the pandemic process and in the future.

It is also worthy of emphasis that the relatively young public institutions that function as soft power in the Turkish public diplomacy and foreign policy also joined the efforts of the Ministry of Foreign Affairs and the Ministry of Health and participated in the administrative action in the pandemic. In this context, while Turkish citizen living abroad were provided with any help they need with the *Diaspora COVID-19 Support and Coordination Program* initiated by Presidency for Turks Abroad and Related Communities (YTB), NGOs were actively engaged in the efforts to aid those in need and in the production of healthcare equipment for healthcare professionals (YTB, 2020). As examples to flexible public structuring, these institution demonstrate appropriate and active execution of governance without, in this context, being burdened by the weight and ponderousness of bureaucracy.

The last important piece of the governance model is the local authorities. When we examine the active roles and positions of local authorities -we described their theoretical framework above- in public policies from the perspective of this process, we can clearly see some of its significant examples. Within this scope, while some municipalities are working to support the citizens in need in a coordinated manner, online social activities are also provided to those at home who take advice of "stay home". Some municipalities are running their crisis management operations in the Medical Centre that was formed under it as well as information, precautionary and preventive activities in collaboration with the public and civilian institutions. These municipalities also take the lead in important and acute public services including the production of masks and personal protective equipment for the healthcare professionals working in the vocational courses, transportation services for employees of pandemic hospitals in the relevant provinces, accommodation, food, laundry and provision of personal hygiene materials. In addition to this, they take on important role in the public support policy by turning their activities in youth centres into mental and psychosocial support programs (Marmara Association of Municipalities 2020). In other words, the actions of the municipalities in the field involve examples that are worthy of attention in that they produce effective and result-oriented practices for social service policies on a local scale and offer concrete practices of the philosophy of institutional politics that operate on the basis of coordination and a partnership mechanism.

Here, a specific institutional model must also be mentioned. Under supervision of the Municipality of Sultanbeyli and in cooperation with the District Governorate of Sultanbeyli, the Ministry of Family, Labor and Social Services and the NGOs that are actively working in the region, the *Refugees Association*

was found in 2014 for the purposes of mitigating the refugee problem in terms of public policies. The Association's principle of working in coordination with private corporations from different areas, other NGOs and public institutions was an important element that provided effective results in the field. So much so that, this is a structure that runs in the capacity of an institutional coordination centre by building a horizontal network between different organizations in areas which require variety of expertise including healthcare, social services, education, culture, law and employment. Today, it operates as a multipurpose civilian centre with 12 different units, thousands of volunteers and 155 professional employees including teachers, interpreters, trainers, physicians, healthcare and social support specialists, lawyers, economists, psychologists and sociologists (Refugees Association, 2020). What needs to be clearly identified here is that such a model of institutional structuring manifests itself as model that offers a hybrid set of advantages, as theoretically outlined in the analysis. In other words, this is a new type of institutional politics model where produces a synergy and dynamism that combines the flexibility of civil society and the infrastructural strength of the state without resorting to inefficiency or bureaucratism. Indeed, Turkey's recent experience of institutional politics as in the context of this specific model is becoming visible primarily in the case of refugees and secondly in the administrative processes in times of natural disasters and is gradually institutionalized.

Conclusion

The importance of defining politics and political processes from the perspective of the institutional context is deepening simultaneously with the changes in content and form and becoming more permanent. The direction of such transformation is such that the legitimacy of the perspective of political and economic processes based on formal institutional philosophy and of the established institutional regulations and operations is collapsing. This is a new context of institutional politics characterized by a transition to an institutional culture based on democratic norms and inclusive of social dynamics and where the institutions emerge based on the distribution of political and socio-economic power in the society. And this is regarded as a setting in which democratic politics can settle and take root. And from an administrative perspective, the philosophy of policy-making is being replaced by a perspective of the institution redefined to include non-verbal habits, value judgments and social-institutional moral understanding, rather than a structuring based on formalism. The new hypothesis is that the institutions provide politics with a new meaning system. In this new setting, institutional transformation is defined as the product of the mutual interaction between the states and the society and internal transformation of institutions operate on this plane. Furthermore, this is a context where an external shock independent of these (disasters, war, economic crises, pandemics, famine etc) is capable of changing the paradigm of institutional politics entirely.

In this context, the structural transformation that the state undergoes as the central institutional agent is a product of this setting. Social movements that arise out of the failure of the welfare state shifted the framework of the functions and responsibilities of the state from the social to the political ground. And this would mean the minimization of the state's operational flexibility by means of pushing it to a static formalism with regard to the execution of institutional politics. The institution of state stuck within political processes and, to a larger extent, this process of political mobility which the institutional politics underwent created an effect which also undermined the trust in the democratic institutions in the West. Furthermore, the Western societies, who faced the inefficiencies of the new institutions in resolving social problems, now had their belief in democratic institutions and democratic institutional politics largely weakened.

And this process created a dynamic which, in essence, imposes and enforces the notion of institutional change. A notion of change that marks a new political philosophy which is more collaborative, more flexible, more social-oriented and value-oriented. The reflection of this on the administrative process is the increase in the influence of non-governmental structures on administrative processes, which can also be described as a network system within a multi-agent governance structure.

The case of Turkey points to a structural setting that, while not independent of the above description, cannot isolate itself from the exclusive realities created by its particular context. Essentially, this is a tension caused by the political intersection of traditional/conventional political setting and the new political setting which it transformed into. In other words, what we are discussing an institutional setting shaped by the conflict between the visions of "statist centre" and "social centre". One reason for this is that Turkey has a traditional context of politics where an administrative philosophy and practice based on civilian-military bureaucracy is dominant along with a kind of institutional oligarchy. The institutional structure reinforced with a succession of military coups that follow the transition to the multi-party system and constitutions drafted by the military which are the products of interim regimes was again the tutelage of this statist bureaucracy. At this point, in the course of the institutional transformation that has been taking place for some time now, the Presidential system, along with other reforms, can be considered as a new phase in terms of the mental paradigm shift regarding the structure of the executive body and the exploitation of all administrative capabilities based on sensitivities, efficiency and flexibility. Indeed, it is also possible to assert that the model of central structuring and the institutional model governing the relationship between the central and local governments are designed accordingly.

What this new setting of institutional politics stands for in the path underlined by the COVID-19 process is the model that is centered around two keywords: coordination and governance. In other words, one must analyze the parameters of the sociological network that operates via the institutions and its implications

on the political transformation. We are going through a period of coordination and governance that is shaped by, interinstitutional coordination as well as increased functionality on the part of local authorities, private sector and its affiliates, NGOs, institutions and development agencies with semi-public legal entities as subsidiary agents of a central state bureaucracy that will be implemented in public policies in a more flexible and dynamic way. The preliminary experience of this new setting of institutional politics was tested, deepened and institutionalized in the management of the refugee problem for the last ten years and, more recently, in the way the aftermath of the earthquake was handled. Within the context of this concrete practice as indicated by the COVID-19 and post-COVID-19 period in its entirety, Turkey's stand has been to designate the new administrative model characterized by coordination and governance as depicted above, as the main strategic path of institutional politics.

References

Acemoğlu, D. ve Robinson, J. (2004). Institutions as the Fundamental Cause of Long-Run Growth. *NBER Working Paper Series.* No. 10481.

Ahaber (2020). Retrieved from: https://www.ahaber.com.tr/gundem/2020/05/23/genclik-ve-spor-bakani-kasapoglu-yurtlarda-misafir-edilen-vatandaslarin-sayisini-acikladi

Alkan, H. (2018). *Kurumsalcı Yaklaşım Işığında Yeni Siyasetin Analizi: Cumhurbaşkanlığı Sistemi*. Ankara: Liberte Yayınları.

Alkan, H. (2019). *Geleceğin Türkiyesinde Yönetim*. İlke Yayınları.

Ambrosius, G. ve Hubbard, W. (1989). *A Social and Economic History of Twentieth-Century Europe*. Cambridge, MA: Harvard University Press

Anadolu Ajansı (2020). Retrieved from: https://www.aa.com.tr/tr/koronavirus/koronaviruse-karsi-siki-onlemlerle-korunan-huzurevi-kapilarini-aaya-acti/1833391

Buchanan, J. ve Tullock, G. (1962). *Calculus of Consent: Logical Foundations of Constitutional Democracy*. University of Michigan Press.

Cebesoy, A. F. (2007). *Siyasi Hatıralar*. İstanbul: Temel Yayınları.

Commission of the European Communities. (2001). European Governance: A White Paper. Retrieved from: http://eurlex.europa.eu/LexUriServ/site/en/com/2001/com2001_0428en01.pdf

Crouch, C. (2016). *Post-demokrasi*. Ankara: Dost Yayınları.

Demirel, A. (2017). *Birinci Meclis'te Muhalefet: İkinci Grup*. İstanbul: İletişim Yayınları.

Easton, D. (1957). An Approach to the Analysis of Political Systems. *World Politics, 9*(3): 383-400

Edwards, M. (2008). *Civil Society*. Cambridge: Polity Press.

Ehrenreich, J. (1978). *The Cultural Crisis of Modern Medicine*. New York: Monthly Review Press.

Eryılmaz, B. (2012). *Kamu Yönetimi*. Kocaeli: Umuttepe Yayınları.

Evans, P. (1997). The Eclipse of the State? Reflections on Stateness in an Era of Globalization. *World Politics*, 50 (Oct.): 62-87

Fenger, M. ve Bekkers, V. (2007). The Governance Concept in Public Administration. Victor Bekkers (ed.). *Governance and the Democratic Deficit: Assessing the Democratic Legitimacy of Governance Practices* içinde. Hampshire: Ashgate

Fukuyama, F. (2001). Social Capital, Civil Society and Development. *Third World Quarterly, 22*(1), 7–20

Fukuyama, F. (2006). *Nation-Building*. Johns Hopkins University Press.

Hall, P. (1993). Policy Paradigms, Social Learning, and the State. *Comparative Politics, 25*(3), 275-296

Hayek, F. (2011). *The Constitution of Liberty*. The University of Chicago Press.

Hill, D. M. (1974). *Democratic Theory and Local Government*. London: Allen & Unwin.

Hollingsworth, J., Hage, J. ve Hanneman, R. (1990). *State Intervention in Medical Care: Consequences for Britain, France, Sweden, and the United States, 1890-1970*. NY: Cornell University Press.

Huntington, Samuel P. (1968). *Political Order in Changing Societies*. New Haven: Yale University Press.

İçişleri Bakanlığı (2020). Retrieved from: https://www.icisleri.gov.tr/vefa-sosyal-destek-gruplari-6649461-haneye-ulasti

İHH (2020). Retrieved from: https://www.ihh.org.tr/oradaydik/korona

Kalkan, B. (2015). Yeni Kurumsal Siyaset. *Gaziantep University Journal of Social Sciences, 14*(3), 559-583.

Karpat. K. (2017). *Türk Demokrasi Tarihi*. İstanbul: Timaş Yayınları.

King, A. (1983). The Political Consequences of the Welfare State. S. Spiro ve E. Yuchtman-Yaar (ed.). *Evaluating the Welfare State* içinde (ss. 7-25). New York: Academic Press.

Lipset, S. M. ve Rokkan, S. (1967). Cleavage Structures, Party Systems, and Voter Alignments. S. M. Lipset ve S. Rokkan (ed.). *Party Systems and Voter Alignments* içinde (ss. 1-64). New York: Macmillan.

Marmara Belediyeler Birliği (2020). Retrieved from: http://marmara.gov.tr/covid19

Marshall, T. H. (1965). *Class, Citizenship and Social Development*. New York: Anchor Books.

Mishra, R. (1990). *The Welfare State in Capitalist Society: Policies of Retrenchment and Maintenance in Europe, North America, and Australia*. Toronto: University of Toronto Press .

Moffitt, B. (2017). Liberal Illiberalism? The Reshaping of the Contemporary Populist Radical Right in Northern Europe. *Politics and Governance, 5*(4), 112-122

Moore, B. (1966). *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World*. Beacon Press.

Mülteciler Derneği (2020). Retrieved from: https://multeciler.org.tr/

O'Neill, O. (2002), *A Question of Trust*. Cambridge University Press.

Peters, G., Pierre J. ve King, D. S. (2005). The Politics of Path Dependency: Political Conflict in Historical Institutionalism. *The Journal of Politics*, 67(4), 1275-1300

Piven, F. ve Cloward, R. (1977). *Poor People's Movements –Why They Succeed, How They Fail*. New York: Pantheon.

Rhodes, R. A. W. (2006). *Old Institutionalisms*. Sarah A. Binder, R. A. W. Rhodes, ve Bert A. Rockman (ed.). The Oxford Handbook of Political Institutions.

Richards, P. G. (1983). *Reformed Local Government System*. London: Allen & Unwin.

Rosenau, J. N. (2008). Yeni Bir Küresel Düzende Yönetişim. Çev. Ali Rıza Güngen. David Held ve Anthony McGrew (ed.). *Küresel Dönüşümler* içinde (ss. 269-281). Ankara: Phoenix Yayınları.

Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü (2019). Retrieved from: https://www.grip.gov.tr/depo/saglik-calisanlari/ulusal_pandemi_plani.pdf

Selznick, P. (1957). *Leadership in Administration: A Sociological Interpretation*. Berkeley: University of California Press.

Soin, K. ve Huber, C. (2013). The Sedimentation of an Institution: Changing Governance in U.K. Financial Services. *Journal of Management Inquiry, 22*(3), 260-280.

Stiglitz, J. (2020). Plagued by Trumpism, *Social Europe*.

Toklucu, D. ve Baygeldi, M. R. (2020). 5 Soru: Koronavirüs Salgınının Ardından Sosyal Politikalar Alanında Neler Yapıldı? *SETAV*. Retrieved from: https://www.setav.org/5-soru-koronavirus-salgininin-ardindan-sosyal-politikalar-alaninda-neler-yapildi/

Tunçay, M. (1981). *Tek Parti Yönetimi*. Ankara: Yurt Yayınları

UN (1952). *Preliminary Report on the World Social Situation*. New York: UN Dept. of Social Affairs.

UN (1982). *Report on the World Social Situation*. New York: UN Publications.

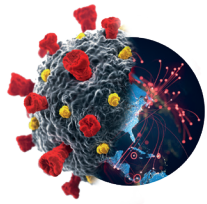
UN (1985). *Report on the World Social Situation*. New York: UN Publications.

Van Tuijl, P. (2016). Civil Society and the Power to Build Peaceful and Inclusiveness Societies. D. Cortright, M. Greenberg ve L. Stone (ed.). *Civil Society, Peace and Power* içinde. New York: Rowman & Littlefield.

Weber, M. (1978). *Economy and Society: An Outline of Interpretive Sociology*. Berkeley: University of California Press.

Wickwar, H. (1970). *The Political Theory of Local Goverment*. University of South Carolina Press.

YTB (2020). Retrieved from: https://www.ytb.gov.tr/haberler/ytbden-yurt-disinda-kovid-19la-mucadeleye-destek



The Political-Economic Transformation in the Post-Pandemic Era

H. Tarık Oğuzlu

Prof. Tarık Oğuzlu

Prof. Tarık Oğuzlu is currently the Chair of the Department of Political Science and International Relations and the Director of the Center for Social, Economic and Political Research (SEPAM) at Antalya Bilim University. He holds a Ph.D. degree in International Relations taken from Bilkent University in 2003. He holds a Master of Science degree in International Relations taken from the London School of Economics and Political Science in 2000 as well as a Master of Arts degree in International Relations taken from Bilkent University in 1998. He was granted the Jean Monnet Scholarship of the European Commission in 1999. He works on the following subjects: international relations theories, Europeanization of foreign policy, European Union foreign and security policy, transatlantic relations, Turkish foreign policy, Turkey's relations with EU and NATO/US, Turkey-Greece relations, Cyprus dispute, Turkey and the Middle East.

The Political-Economic Transformation in the Post-Pandemic Era[1]

H. Tarık OĞUZLU
Antalya Bilim University
tarik.oguzlu@antalya.edu.tr

Abstract
This study tries to examine how the COVID-19 pandemic might affect the nature of international politics as well as the structure of international relations in the years to come. The way the pandemic unfolds and the measures adopted to stem it will likely affect the future of globalization process and the nation-state, the allure of democratic and authoritarian regimes, the future of illiberal populist parties and movements, the attractiveness of alternative moral approaches, the future of European Union integration process and the future trajectory of the geopolitical competition between the United States of America and Peoples' Republic of China. The policies adopted by American and Chinese governments during this process will strongly affect their respective capabilities to play leadership roles in different aspects of global governance. Even though it is quite popular to argue that nothing will remain the same after the COVID-19 pandemic, this study recommends that analysts adopt a more modest and prudent approach in predicting the future course of international politics. It is still too early to offer ironclad statements regarding the future of international relations.

Keywords
COVID-19, globalization, nation-state, USA-China rivalry, European Union

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

There is an overwhelming consensus today that the main dynamics of international politics will change significantly after the COVID-19 outbreak. The number of people who claim that nothing will be the same after the pandemic is quite high. On the other hand, people who think that this situation should not be exaggerated are not few. It is necessary to be cautious about the views that this epidemic is closing an era and opening a new era, since there has not passed enough time to analyze the effects of the outbreak on international relations and the basic dynamics of international politics. Similar to the Spanish flue that happened towards the end of the First World War, the Great Depression in 1929, the bombing of the American naval forces in Pearl Harbor by Japan in 1941, the transnational terrorist attacks on American lands on September 11, 2001 and the global financial crisis in 2008, the current disease of COVID-19 will likely have important consequences in the flow of history.

Although not enough time has passed by now so as to offer iron-clad predictions about the possible consequences of the epidemic and the dynamics it might trigger in global politics, we will make some predictions on how the future might unfold based on the developments that have occurred since the beginning of the epidemic. In doing so, we will try to discuss what will change and what will remain unchanged.

The main issue that concerns us in this study will be the effects of the epidemic on international relations, globalization, competition between great powers and the future of the nation-state. The future of globalization and the nation state, the performances of liberal and authoritarian state models in this process, the future of illiberal populist politics, the morality of the measures taken to suppress the outbreak, the trajectory of the European Union integration process and the course of geopolitical competition between the United States

and China will be affected by the outbreak of the pandemic. The attitudes adopted by the American and Chinese governments in the context of combating the outbreak will also determine their leadership capacity in the context of global governance. Although it is equally important to make predictions about the forms of social life, business manners, family relationships, entertainment practices, production relations and the relationship between technology and human beings in the post-pandemic era, we exclude these issues from the analysis offered here.

Globalization and Nation-State

While discussing the possible consequences of the coronavirus outbreak on the nature of international relations, the first issue emphasized by many observers is that the globalization process will be negatively affected by these experiences. The phenomenon of globalization, which is based on the assumption that the cross-border traffic of people, capital, services, technology and products is accelerated and occur easier, seems to lose a serious ground in this process. Closing the borders is one of the most important measures taken to minimize the spread of the virus. In the past few months, the mobility of people and products has slowed down. Many circles have been saying for some time that globalization has progressed faster than expected, and developments occurring in far distant places have negatively affected our economic well-being, physical health and safety at home. We have now seen that serious slowdown that may occur in the economies of the countries that are at the center of global supply chains, especially in China, could negatively affect the economies of other countries. We witnessed that many products we consume at home were being produced outside our border alongside the outsourcing dynamics as part of the globalization process. Before the pandemic, trade within and among multinational corporations constituted more than half of global trade flows. Many products were being produced in countries where labor and other production costs were cheaper.

COVID-19 has showed us how risky it would be outsourcing the production of facial masks, oxygen machines, medicines and many medical supplies to outsiders in the name of economic efficiency. We have seen that a serious disruption in the global supply chains could bring the economy of many countries to a halt during the crisis. In addition, many measures taken to stop the spread of the outbreak have created a serious supply and demand contraction. In the years ahead, the urge to bring production closer to home as well as make it less dependent on others will continue. Global supply chains will now be established at more regional levels. Countries will either produce their own goods, especially strategically vital ones, or buy them from countries that are geographically close to them. States will intervene more in the economy in order to prevent economic vulnerabilities. If not communist or entirely socialist, center of left economy policies will be more popular. For example, President Trump has stepped up his effort to help minimize

economic interdependence between his country and China and, if possible, to completely separate the economies of the two countries. With the epidemic, it has once again become important to rely on domestic resources in producing vital goods as well as lessening the need to have access to others' markets for economic growth.

There were serious criticisms that the globalization process significantly increased domestic income inequalities and damaged the relationship between nation-state and democracy. We knew that the gulf between middle classes and high income groups grew in favor of the latter alongside the globalization process and the real income of people in the middle and lower income groups decreased decisively. While many measures taken to suppress the COVID-19 outbreak caused serious contractions in national economies all over the world, the people who have been affected by the epidemic the most negatively have proved to be low-skilled blue collar workers. This is not a coincidence.

While examining the outcomes of the epidemic globally, the protest movements first emerging in the United States and then spreading out to other countries as a result of the murder of an African-American citizen by a white policeman in the United States warrant closer attention. It is quite important to read the violent protests occurring in the world's richest and militarily most powerful country not only as a reaction against white racism but also as a manifestation of an accumulated anger against the neoliberal social and economic order. African Americans, which make up about 15 percent of the country's population, are around 40 million in number. It cannot be more natural than the fact that African Americans, - who have been experiencing the economic and social injustices of the neoliberal system, being exposed to systemic discriminations, receiving the least from the overall national income and constituting the bulk of the inmates in prisons- have taken to the streets to protest the murder of George Floyd. Of all segments of American society, it is African Americans who have lost their jobs the most and applying for unemployment benefits in highest number.

America is currently one of those countries that has experienced the coronavirus epidemic the most negatively. The overwhelming majority of those who died due to the epidemic are African Americans. American citizens of African-American origin are most exposed to the virus because of their labor-intensive work. Many of the measures taken to suppress the outbreak have affected the lives of African Americans primarily. Both surviving psychically and trying to get along economically have been very difficult for this group. This constitutes the background against which one can analyses the looting events following the murder of Floyd. If we put aside the vandalism shown in the protests and the far-right and far-left marginal groups taking the stage opportunistically, many people who participated in street demonstrations have actually protested the current economic system. The neoliberal economic order, which treats people as goods in the market, alienate people to themselves and widens the income gap between the rich class and middle- and lower-income groups, has

now reached a boiling point. As the center of political and economic power is rapidly shifting from the West to the East, which seems to be facilitated by the current epidemic, neoliberal policies will increasingly be put into question across the West.

For a long time, we have been witnessing that the production decisions of multinational companies affect the fate of people more than the decisions of elected governments. Reactions to this situation have increased in recent years and political movements and parties, which believe that sovereignty should be regained, have become more salient across the globe. In direct opposition to neoliberal globalization process, which treats people as "homo-economicus" and reduce them to mere producers and consumers, recent years have witnessed the spectacular rise of political movements that see people as "homo-sociologicus". Illiberal populism has become more visible than ever across the globe. Political movements that view foreigners with suspicion, question the multicultural societal structure, react to the eroding of traditional values, and place the nationalist point of view at the center of politics have gained momentum recently. It would not be wrong to suggest that such trends will continue in the post COVID-19 world. The view that it would be better to provide health, security and economic welfare at local and national levels will likely gain strength in the years to come.

Since the outbreak of the pandemic, we have been witnessing that important decisions and measures are being taken at national and local levels. Coordination and cooperation at global level and multilateral platforms is something that has been missing. Neither the World Health Organization nor G-7 and G-20, the European Union nor other international organizations have fulfilled the global coordination and leadership task expected from them in this process. The COVID-19 has made it undoubtedly clear that people first look to their states and local authorities for economic well-being and physical security. We are now entering a period in which states will likely regain some of the ground that they lost in recent decades alongside the uncontrolled globalization process.

European Union and Illiberal Populism

We have witnessed the tension between globalization and nationalism to its greatest degree in the case of the European Union integration process. The COVID-19 outbreak seems to have accelerated the questioning of the values on which the EU integration process rests. Italy and Spain, the EU members which have been most affected by the epidemic, did not receive the support they expected from the richest members of the EU. Supporters of tight monetary and fiscal policies within the EU, especially Germany and the Netherlands, continue to oppose providing economic aid to their southern spendthrift partners. Despite the latest agreement between France and Germany that the European Central Bank would issue coronobonds, Germany and other wealthy EU member states do still object to bailing out southern EU members out of good will.

In addition, we have seen that EU member states have not provided each other with considerable medical aid and equipment in controlling the crisis. It was once again seen that the EU could not succeed in offerings solutions to the pandemic through its common institutional platforms. Worse, ruling governments in such member states as Hungary and Poland have taken steps taking advantage of the extraordinary conditions that might potentially result in weakening of liberal democracy. For example, in Hungary, the decision of the parliament to approve the state of emergency issued by the government might give extraordinary power to the executive at the expense of other branches. The measures adopted in the name of defeating COVID-19 might erode liberal democracy and indirectly result in further centralization of decision-making process. Hungary has demonstrated that the balance between freedom and security can be easily redefined during times of emergencies favoring the latter at the expense of the former. There are serious concerns that such practices might be repeated in other member states, the least being Poland. Measures taken to defeat the disease can empower state authority at the expense of civil society as well as prioritizing security over freedom.

The anti-integration populist movements that begun afflicting European politics before the outbreak of the pandemic can emerge from the ongoing crisis much stronger. In order to prevent this from happening, central-mass parties in power across the continent should succeed in their efforts to defeat the crisis in the short term. For example, in order for the center-right and center-left ruling parties in Germany, namely the Christian Democratic Party and Social Democratic Party, not lose against the populist Alternative for Germany Party in the upcoming parliamentary elections, they need to succeed in defeating the Coronavirus sooner than later. For the mass political parties in the center to gain the high moral ground in this process, they should continue to build their policies on scientific expertise and rationality and get quick result results.

State Capacity

Another point that should be underlined in this context is that rather than how countries are ruled internally and which political values and norms they believe in, their state capacities have determined their ability to control and reduce the outbreak. States that have serious state capacity in the health sector and are able to take decisions fast and implement them centrally have been much more successful in this process. Whether such democracies as Germany, Japan, South Korea, Taiwan and Turkey or whether such authoritarian regimes as China and Singapore and Vietnam, countries with a strong state capacity have stepped forward in this process. In none of these countries, the operation of health sector has been predominantly left to the market forces reflecting the principles of neoliberal capitalism. This is just the opposite of what one could observe in such countries as the United States, the United Kingdom and Italy. In these countries, state spending in health sector has dropped significantly in recent years and market forces prevailed over social factors.

Another common feature of countries where such measures of preserving social distance, wearing masks and respecting hygiene rules have produced positive results is that strong communal values take priority over strict individualism. In Anglo-Saxon countries where extreme individualism is prevailing, people are less willing to sacrifice their personal freedom in favor of protecting public health. No matter how severe consequences such measures might have on economy, in countries where communal values are strong people tend to respect public health measures more voluntarily. Similarly, the employment of technological facilities in tracking physical movement of people is considered to be more legitimate in countries where strong communal values take precedence over individualism. Based on the measures adopted by diverse countries across the globe since the outbreak of the crisis, one can safely argue that people will put more emphasis than ever on strong state capacity, strong social ties and welfare state ideology in the post-pandemic world. The idea that the road to individual prosperity and security goes through the maintenance of social prosperity and security will likely strengthen in the years to come.

Moral Considerations

In the process of defeating COVID-19, peoples' moral values are also being contested. Secular morality presumes that people would treat others the way how they want to be treated by them. The principle of people putting themselves in the shoes of others before engaging them is strongly emphasized by secular morality. What we have seen so far is that people across the globe have largely respected this principle and agreed to strong limitations of their personal freedom in the name of protecting the larger society.

The most important exception to this practice has taken place in Anglo-Saxon countries, where traditions of individualism and utilitarianism are quite strong. The adherents of Social Darwinism believe that the weakest link of society should be sacrificed for the benefit of larger society. Many Social Darwinists living predominantly in Anglo-Saxon countries argue that measures adopted to defeat the epidemic will likely cause serious economic crises in the medium and long term. Therefore, they strongly oppose such measures of quarantine and lockdowns. Nevertheless, based on the evidence on the ground one can safely argue that the countries which have dealt with the crisis from the perspective of communal needs and secular moralism will likely prove to be more influential in global politics in the years to come.

US-China Competition and Sharp Power in Global Governance

As the coronavirus pandemic has made it clear we are now quickly moving toward a new international order in which neither the United States nor China appears to be eager to play the role of a responsible global leader. Reluctant to adopt credible initiatives to help coordinate responses globally to defeat COVID-19, both superpowers seem to have put their national interests first

and are engaged in sharp power competition with a view to gaining the moral high ground in the eyes of global audiences. This suggests that the ongoing American-Chinese geopolitical competition will increasingly take on more ideological or normative dimensions than ever before.

Even though some argue that we are still far from a situation in which the U.S. and the Soviet Union faced each other as existential enemies during the original Cold War years, we are quickly moving to that stage, with China and the U.S. increasing their efforts to inflict damage on their material and nonmaterial interests each passing day.

Yes, the degree of economic interdependence between the U.S. and China far outweighs the degree of economic interdependence that existed between the U.S. and the Soviet Union. Unlike the Soviet Union, China owes its spectacular economic growth to its institutional incorporation into the U.S.-led liberal international order. China's access to Western markets, Western foreign direct investment in its domestic economy, Western technological transfers to its firms, outsourcing of Western manufacturing jobs to the country and the huge dollar reserves at its disposal have long led many to argue that the probability of China overhauling the current order would remain much lower than the probability of China transforming into a responsible stakeholder. The high economic interdependence between the two countries appears to have produced the perception that the U.S. and China are on the same ship, and any shipwreck would make them both sink.

Yes, both superpowers appear to believe in the merits of economic capitalism to push further growth and development. Despite the fact that the U.S. has thrived on market capitalism while China on state capitalism, the degree of divergence between American and Chinese models of capitalism is much less than the degree of incompatibility between American capitalism and Soviet communism.

Yes, unlike the competing American and Soviet claims to global primacy during the Cold War years, what we observe today is one established hegemon abdicating the role of global leadership while a rising superpower still shirking global responsibilities before proving its claim to hegemony in its own neighborhood.

Yes, unlike the American-Soviet example, today's U.S. and China engage each other through various bilateral and multilateral platforms. Saving their togetherness within the United Nations Security Council, the then Soviet and American leaders preferred to deal with each other bilaterally. This is just the opposite of how U.S. and Chinese leaders have interacted with each other since the early years of China's opening to the global economy in the late 1970s. The multilateralist elements of American-Chinese relations have spectacularly increased following China's membership in the World Trade Organization in 2001.

Having said that, the post-COVID-19 era does not augur well for the future of U.S.-Chinese relations, and many pundits have already rushed to the conclusion that we are now watching a new Cold War unfold between two behemoths. Let alone their growing military expenditures, the U.S. has intensified its efforts to help contain China's rise through Quad-like initiatives, while China is doing its best to drive wedges between the U.S. and its traditional allies across Europe, East Asia and Southeast Asia.

Besides, China has in recent years improved its relations with Russia. Having felt excluded by the West, Russia and China have come much closer to each other than before. Though a traditional security alliance has not been in the making yet, each passing day witnesses more joint military exercises, energy cooperation and diplomatic coordination between the two nations.

The fabrication of the China threat in American society also seems irreversible now. Many opinion polls recently show that majorities of Republican and Democratic constituencies in the United States define China as the number one existential threat. A Joe Biden presidency would not change the anti-China hysteria in American society. China's performance during the coronavirus pandemic seems to have corroborated Americans' fear that the communist leadership in Beijing is doing everything to hollow out American primacy and dent American image across the globe. A similar psychology reins in Beijing with Chinese leaders accusing their American counterparts of not playing a responsible role during the pandemic and putting China in the crosshairs. There is now an undeclared war between the two nations. U.S. President Donald Trump's efforts to decouple the American economy from that of China and his contribution to the erosion of China's centrality in global supply chains are now viewed as hostile actions in the Chinese capital.

Both countries are now competing with each other to recruit as many followers as possible throughout the world. Europe, Central Asia, Africa, Latin America and Southeast Asia have increasingly transformed into playgrounds for the two countries. Both countries have now weaponized their military, economic and ideational power capabilities in order to score goals against each other.

The thing to worry about is that the COVID-19 pandemic has strengthened the Cold War dynamics in American-Chinese relations and added a more ideological and normative flavor to it. Their political values, economic policies, governance models and cultural traditions will increasingly become ammunition in this geopolitical competition. This is as much a hard power competition as it is a soft and sharp power one. Unlike the original Cold War between the U.S. and Soviet Union, the new Cold War between U.S. and China will have more catastrophic consequences because humanity is living in a more globalizing and shrinking world and technological developments will multiply its corrosive impact.

The concept of power is one of the most popular and elusive concepts in the academic discipline of international relations. To many, power is the ability of

one actor, in our case states, to influence the behavior, interests and identity of other actors in the image of its own priorities, preferences and values. Put differently, power is the ability of one actor to get what it wants from others. The crux of the issue here is to define from where this ability comes and whether one can measure it. This suggests that power has both residual and relational aspects. Power is residual because being powerful requires a particular actor to possess some capabilities, of both tangible and intangible sorts, and the will to use them in order to have an impact on others. If there is no will to use such capabilities, possessing them does not confer any advantage on the actor which holds them at its disposal.

Without those capabilities in the first instance and the will in the background, it is nearly impossible to influence others. Tangible sources are those that can be quantified, measured, observed and categorized. Such sources are military capability, economic might, geographical location, population number, human development, technological prowess, environmental factors, etc. Intangible sources of power are those that cannot be easily observed, tested or measured. Moral, values, norms, societal cohesion, culture, image and identity are typical examples of intangible power capabilities.

Power is also relational because for power to exist there needs to be at least two actors interacting with each other. For example, if State B does not meet the demands of State A or change its behaviors along the expectations of State A, then State A does not have power over State B. Possessing mere power capabilities and the will to use them does not automatically translate into being powerful. Being powerful requires the compliance of others with the demands of the state that tries to have an impact on their choices. Relationality suggests that power is also contextual. Possessing huge military capacity might not matter at all in the context of defeating global pandemics and environmental calamities.

Coercing hard powers are those that try to get what they want from others by coercing them to meet their choices. Others would either agree to the terms of the coercer or get punished severely for their non-compliance. Coercive powers would frighten their opponents and threaten them with the negative consequences of their non-cooperation. Coercive powers try to instill fear in their targets and wish for them to respond out of necessity. Coercive hard powers might employ both military and economic capabilities.

Inducing/enticing/coaxing hard powers are those that try to get what they want from others by pushing them to make materially construed cost-benefit calculations. Their hope is that others would be induced to cooperate if they saw that their cooperation with the inducer would yield them more benefits than costs. Rather than fear, interests based on rational cost-benefits calculations would drive compliance with the demands of the power holder.

As we are now fast moving to the post COVID-19 era, soft power will likely become as important as hard power. The risk here is that as soft power is seen

as something that needs to be manufactured in a strategic manner, it comes closer to sharp power. The years ahead might increasingly see soft power being mistakenly defined as sharp power and turn out to become a weapon at the hands of states, most notably great powers, to be employed in their geopolitical games.

Whereas soft power emanates from attraction and strongly hinges on credibility, sharp power stems from well-designed propaganda and public relations efforts aiming at cultivating a positive image about one's self as well as activities of manipulation and disinformation targeting external audiences. When it becomes a tool to be employed in interstate competition, soft power can no longer be considered as soft or innocent nation-branding efforts.

I argue that this is the scene we have been increasingly witnessing over the last decade, and we will see more of it in the years to come. To test how it feels, just take a brief look at how Russia has been waging political warfare against liberal democracies in the aftermath of the Crimean crisis in 2014. There is a war between Russia and Western powers, and this war is being fought more politically than militarily. Apart from the ongoing proxy wars in Syria, Libya and other conflict-riven failed states, the growing power competition between Russia and liberal democracies has been evolving more in political than military platforms. Lending support to pro-Russian political parties and movements across Europe and the United States, helping manufacture a positive image about Russia and its policies through the employment of all available media platforms and resorting to disinformation campaigns with a view to tarnishing the image of the West all over the world can all be considered as textbook examples of how sharp power has increasingly become a part of Russian statecraft.

Investing in creating alternative truths and contesting conventional understanding of social realities constitute other examples of how sharp power is exercised. As universalism has begun giving way to relativism and as various practices of the globalization process have been increasingly replaced by various practices of protective nationalism in recent years, sharp power wars have inevitably turned out to be propaganda wars. It is undoubtedly clear that the shift from a U.S.-led unipolarity toward a contested multipolarity has eased this process.

This process will likely accelerate in the post COVID-19 age. The competition between the United States and China will intensify, and what will shape the end result of this growing competition will increasingly revolve around the question of how many followers China and the United States will each have in the following years. The two powers have already engaged in a propaganda war concerning the success of the measures each adopted to defeat the coronavirus.

The sad truth is that none of us is in any position to verify the authenticity and legitimacy of the narratives that American and Chinese governments

radiate around the world. Should we name the coronavirus the Chinese virus as American President Donald Trump wants us to do? Is China helping others defeat the virus as a good international citizen, or is China's mask diplomacy and financial assistance to needy countries aimed at salvaging China's tarnished image in the early days of the pandemic? Is it the Chinese or American model of governance that performs better? What about the performance of the World Health Organization (WHO)? Has it actually transformed into the Chinese Health Organization as many China-bashers would have us believe, or are China's increasing contributions to global governance, most notably in the realm of efforts to defeat global pandemics, what we need as Trump's America is abdicating its global leadership and becoming more introverted each passing day?

It is now becoming more and more difficult each passing day to assess the truth claims of any actor in any power competition. Objectivity is becoming increasingly contested. Multipolarity is aggravating this problem too, because as material power is dispersed among many actors, the number of alternative truths also multiply. In such an environment, it is going to become more difficult than ever to separate soft power from sharp power.

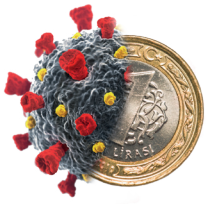
Conclusion

We are rapidly moving away from the US-led unipolar world order to a multipolar one. The COVID-19 will accelerate this transition. In the emerging world order, soft and sharp power will be as important as hard power in states' international behaviors. Russia and China are definitely more successful than Western liberal democratic countries when it comes to the employment of sharp power tools. Having closed societies and strong state traditions is an important advantage in sharp power wars. Western states, which tend to have open societies, will likely be more exposed to external manipulations.

Middle powers will certainly loose as the tension between the US and China escalate. These powers are not as powerful as the global powers that have the ability to shape the course of international developments to their liking. Yet, these powers are also more powerful than small powers in terms of their ability to shield themselves against the external shocks. Most of today's middle powers appear to have workable relationships with the US and China. Many of them have the US as their number one external security provider whereas China as the number one economic/trade partner. Their nightmare would arise if they found themselves in a quandary having to choose between Americans and Chinese. They do not want to see themselves sandwiched between these two behemoths. China and US are bullies and think they are entitled to their own sphere of influence. They are carnivorous powers adept at playing the time-tested play of realpolitik. They have the ability to survive in the jungle of international relations.

On the other hand, many middle powers are herbivorous powers which could only survive in an international environment which comes closest to what many would define as a zoo. From the perspective of many middle powers, doing international politics within an environment of a zoo is less costly and more comfortable than doing this in an environment of jungle. A Kantian world would serve the national interests of many middle powers more than a Hobbesian world. Bandwagoning with any of these superpowers would either put their security at unnecessary risk by antagonizing the other or transform them into a puppet/satellite of the power with which they identify. I think they would do well if they combined their capabilities to form a league of multilateralists that would act in unison as an alternative third block or adopted strict neutrality. Their ability to resist against the realpolitik pressures coming from either the US or China would increase should they act together. Financial and trade globalization, multilateralism, international law and rules-based global governance should continue to define the main tenets of the international order if middle powers want to survive in the emerging cold war between the US and China. Germany, Japan, Canada, Australia, Turkey, India, South Korea, ASEAN members and other potential middle powers should take the lead in bringing into existence an alternative international order which would serve the interests of humanity much better than a new cold war.

It is now certain that the COVID-19 crisis will likely put a brake on globalization, empower those who argue for nationalism and state-directed economic development, push the European Union members to endow their union with strategic sovereignty and fuel the geopolitical competition between the United States and China. Unless many middle powers, which have been deriving concrete benefits from multilateral globalization process, join their forces and push the United States and China to contribute to global governance, the COVID-19 crisis and its aftershock might turn the world into a less stable and more conflict-prone place to live.



The Future of the Sectors and the Change of the Firms in the Post-pandemic Period

Halit Keskin

Prof. Halit Keskin

Prof. Dr. Halit Keskin is a faculty member in the Department of Business Administration, at the Faculty of Economic and Administrative Sciences of Yıldız Technical University. Specialized in Management and Organization Studies, he made significant contributions in research areas such as complex adaptive systems, adaptive management systems, organizational capacity for resilience, management of emotions and emotional memory at organizations, emotional capabilities at organizations, collective empathy, technology and innovation management, technological learning, new product development teams, knowledge management, and learning organizations. Dr. Halit Keskin is currently working as the principal consultant to the President, responsible for strategic management, and the chairman of the Committee for Strategic Planning at Yıldız Technical University. He is also a current member of Quality Committee of Yıldız Technical University and the academic advisor and the project coordinator of Technology Transfer Office at Yıldız Technopark.

The Future of the Sectors and the Change of the Firms in the Post-pandemic Period[1]

Halit Keskin
Yıldız Technical University
hkeskin@yildiz.edu.tr

Abstract

The COVID-19 virus, spreading from Wuhan city of China to the world, envelops and changes the World. The COVID-19 virus emerged in China is a RNA-based virus like the SARS virus but unlike the SARS, COVID-19 has the possibility to transmit very quickly and easily. The SARS was taken under control very quickly and restrained to spread out of China. COVID-19, on the contrary, has spread all over the world and disrupted both social and economic dynamics. Convincing facts about the existence, emergence and spread of the virus require changes and transformations in the global economy, on macro, meso and micro bases. This situation makes it necessary to consider the transformation in the global economy and foreign trade and the adaptation to the new normal on a macro basis. When it comes to mezo base, focus should be on the rising and falling sectors due to COVID-19, and future plans for these sectors should be drawn. On a micro basis, the business plans of the companies should be rearranged together with their business models, new internal governance practices should be focused on, and opportunities to adapt to the new normal should be evaluated. In this study, these issues are discussed respectively.

Keywords
COVID-19, Corona Crisis, Organizational Practices, Pandemic, Resilience, Sector Transformation

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

COVID-19 and The Global Economy

COVID-19 is characteristically similar to the global 1981 flu pandemic called "Spanish flu" and, in the worst case, it is predicted that COVID-19 would affect the global economy in a similar manner as the Spanish flu did (Fernandes, 2020). It is quite wrong to compare the probable effects of COVID-19 with other global economic crises such as crises in 1929 or 2008. These crises occurred in the financial context and reduced household's income, and wealth in a broader sense, and disrupted the demand for goods and services they generated in the economy. On the other hand, COVID-19 also affects supply side, that is, production. Curfews imposed and increases in requirements for maintaining social distance and working at home, in particular, have greatly disrupted production. It is also probable that the effects of the virus will cause strategic paradigm shifts on the global plane.

It is observable that a number of projections for the probable economic effects of COVID-19 are made (BIS, 2020; McKinsey & Company, 2020; ING, 2020). The first wave of COVID-19 hit the global economy and created enormous damages. For example, in the USA, as many as the number of people the government has contributed to the workforce since 2008 financial crisis with monetary expansion and fiscal policies became unemployed within a few weeks due to COVID-19. The possibility of a second wave for COVID-19, similar to the Spanish flu, makes policy makers become hesitated. Policy makers have responded to the crisis the virus caused by increasing money supply much more and tried to support the sustainability of demand and supply by pulling down the interest rates to the near-zero levels. However, this cannot improve the risk perceptions of the workforce, which is important for both production and consumption phases in the economy. Furthermore, the widespread effects of the virus that will be caused by a second wave, as seen in the Spanish flu, will strictly restrict both production and consumption, and create constrictions at high levels in demand/supply directions.

Particularly, in case of no remedial medicine and vaccine is found during the first wave, it is predicted that global economic recovery period will be U-shaped, of which flatter portion is long. In the best scenario, with the discovery of a remedial medicine or vaccine, it is expected that the economy will gain its performance back, that is, there will be a V-shaped recovery period. The number and variety of scenarios can be increased in this concern. Additionally, Le et al. (2020) expect that a emedial vaccine will start to be used in 2021 at the earliest and point out that a very long time will be needed for vaccination at the global level. Therefore, at the assumption that there will be a second wave, global economic recovery is expected to have a W-shaped of which first bottom portion is long but the second one is shorter.

In a period in which trade wars became intensified and the Chinese economy was in difficult conditions, improper and late precautions taken against previous SARS virus caused other countries to act with suspicion toward the Chinese government. In addition to this, the inability of China, the most important country in the global supply chain, to provide necessary raw materials and intermediate goods negatively affected the producers all around the world. In particular, the producers of medicine, automotive, and electronic devices were negatively affected. All these phenomena point out that the importance of China in production will be decreased. It is inevitable that countries will seek to locate their manufacturing centers in closer environments. Therefore, our country stays one step ahead of other countries in its region, due to proximity to European Union and its low-cost labor. Furthermore, it is considered that the manufacturing of electronic devices will be dislocated to other countries, such as India, that is as populated as China. Because, although China is open to the world in foreign trade, due to the communist regime it cannot have sufficient transparency. To sum up, the center line of international trade will be dislocated from China-centered east to the consumption-intensive West, and become dispersed. As a result, the safety of supply chain will be established, and also, the domination of a single country will be eliminated.

Another significant problem that has emerged with COVID-19 and has been tried to be solved is that monetary and fiscal policies are very ineffective in the economies of the countries and are unable to stimulate the economies. Particularly, the Fed (Federal Reserve Bank), the US Central Bank leading to the global economy, has lost its effectiveness in stimulating the economy due to increasing the money supply and the government has lost its power to stimulate the economy by issuing money to the households in the form of cheques. The assets gained through monetary expansion in developed countries, especially, in the USA, are canalized to the financial markets in general and, stock market in particular, instead of reel sector, and generate financial bubbles. Additionally, consumers in developed and developing countries get rid of saving money, even if it is donated, since they perceive the future as uncertain. All these problems have reinforced the idea of shifting from paper money to digital money. Thus, money will have an expiratory date and its area of utilization can be restricted. For example, government aids will

be only used to purchase staple food and vital goods and services, and these aids will be expired if they are not used after a certain period. Thus, money can be canalized to the desired areas and the economy will be kept lively.

COVID-19: Sectorial Change and Transformation

COVID-19 has different effects on different sectors at the both global and local levels. This impact is especially concentrated on service-based industries and service-oriented sectors have come to a standstill point beyond the contraction. On the other hand, manufacturing sector has also been significantly affected. In general, it is not possible to see any sector on which COVID-19 has positive effects, except a few sub-sectors. The positive effect is only limited with medical devices manufacturing and retailing. The sustainability of these effects is also in doubt.

In this section of the study, the future of some selected main sectors in the new normal period will be discussed.

Agriculture and Livestock Sector

In terms of the sectorial effects of COVID-19 virus, the main sector that should be put into consideration is agriculture and livestock. This sector consists of very critical elements required for people to live on and has become strategic during the pandemic period. Some countries, such as Russia, Romania, and Ukraine, gained awareness for the strategic importance of this sector in this global pandemic period, and limited wheat export to other countries. COVID-19 polished the agriculture and livestock sector that stayed out of the agenda in the last years and displayed the importance of the sector. The increasing demand during the pandemic, in particular, caused the prices in the agriculture and livestock sector to rise. The constraints on export in agriculture and livestock sector imposed by some countries indicate the risk of supply shortages, maybe not in the short-run, but at least in the long-run. Therefore, it is possible that the agriculture and livestock sector will be supported by the countries much more and preserved as a strategic sector with the pandemic. Because countries started to focus on becoming self-sufficient and feeding their people in such an environment, in which foreign trade is disrupted. Declaring curfews and putting elderly people above a certain age in quarantine disrupted especially the agricultural production (Schmidhuber, J., Pound, J., Qiao, 2020). There are difficulties in employment of seasonal workers both in our country and in the world. Livestock sector is, on the other hand, in danger due to the possibility that the COVID-19 virus will mutate and affect livestock. In addition to this, due to the fact that workers in slaughterhouses are heavily infected, the supply and continuity of fresh meat is suppressed. For all these reasons, it is inevitable that the COVID-19 virus will put the agriculture and livestock sector into a more intensely controlled, certified industrial manufacturing mold, where machinery is used more intensively. Thus, meat processing robotic automation, which started long before COVID-19, will continue to be used increasingly in enterprises in the sector. Robot butchers will begin to become a part of the meat processing system, and many meat packaging plants will try

to increase the use of automated machines based on artificial intelligence. It is thought that research on the creation of systems that can make special cuts according to the carcass shape, using deep learning in their algorithms, and become more intelligent as the amount of data related to the new carcasses they encounter will be accelerated.

While the Food and Agriculture Organization of the United Nations draws attention to the fact that there is enough food production in the world, it predicts the COVID-19 outbreak to affect the distribution of food products and to cause disruptions in production such as fruit, vegetables, meat, fish and milk. Curfews and quarantines primarily hit the fresh fruit and vegetable sector, followed by the fishing and livestock sectors. In particular, the lack of demand from the service sector, such as hotels, restaurants, and cafes, caused the customer portfolio to change completely in the agriculture and livestock sector. Logistic restrictions and the implementation of export quotas will increase the prices in foreign dependent countries for food. The first examples of this are observed in poor countries such as Syria and Sudan, according to the data provided by the United Nations Food and Agriculture Organization. This situation reveals the importance of agriculture and livestock sector once again and reminds us the importance of self-sufficient countries in terms of agriculture and livestock.

Tourism Sector

As in the rest of the world, tourism income has vital importance for the economy due to its foreign currency earning feature in our country. "COVID-19 Tourism and Hospitality Sector Involvement Survey" carried out by Deloitte in April 2020 also refers to at least a 12-month period of return to normality for the sector both in Turkey and in the European Union. Thus, the expected profit from tourism for 2020 will be quite limited. Furthermore, the uneasiness, fear (Hoque et al., 2020), and loss of income caused by COVID-19 show that the growth of the tourism industry will be well below the desired global and local growth. Countries will try to replace the income they lost in foreign tourism with domestic tourism for many years, so will foreign currency inflow to the countries will be reduced. Additionally, increase in costs in the sector will shift the concept of vacation and accommodation to a luxury product category in the upcoming years. In particular, hotels will need to make new investments for ventilation, increase the meter of square per person and take steps towards the improvement of hygiene conditions. At the same time, it seems inevitable for hotels that cannot work at full capacity due to social distance concerns and they will have to reduce their workforce. The tourism sector has to adapt to the new normal after COVID-19, decreasing their capacity usage and their dependence on workforce. Because even in America, which is the heart of the world in accommodation and tourism, the American Hospitality and Accommodation Association reports that 7 out of 10 hotel rooms are vacant and 70% of the employees in the hotels are laid off. During this change and transformation, the economic importance of local tourists, which have been given less value until now, will come to the forefront.

The transportation sector is the most associated sector with tourism. The transportation sector is focused on both passenger transport and freight shipment. COVID-19 brought passenger transportation to a stagnation point. Airline companies identified the loss after COVID-19 as $ 314 billion US dollar globally (Statista, 2020). Countries closed their land, sea and airfields and stopped passenger transfer. For this reason, the transportation sector has evolved more towards freight transportation and the vehicles used in passenger transportation have been modified by, for example, removing seats in aircraft, and used in cargo transportation. Thus, companies of which the main business line is passenger transportation try to cover their losses thanks to freight transportation. However, according to the 2020 projection of the World Trade Organization, world trade is expected to contract between 13% and 32%. Freight transport is also expected to suffer great damage from COVID-19. Transport companies will have to focus more on local passengers while adapting to the new normal led by COVID-19, and the return of the volume of foreign passenger transport to its old levels will vary depending on the discovery of the COVID-19 vaccine. Despite this, with the relative economic recovery, freight and cargo transportation is expected to go beyond passenger transportation and maintain this position for a long time. Especially cruise trips, making holiday transports by sea, are the candidates to be the economic activity in this sector that will have the biggest loss and will be recovered in the very last.

Retailing Sector

Retailing is another sector heavily affected by COVID-19 outbreak. Retailing sector involves a number of products from food to garment and shoe. Pandemic affected and shaped the retailing sector very intensively First of all, the retail sector, other than food industry, fell into a difficult situation with the closure of stores and shopping malls due to the quarantine conditions applied for COVID-19. Consumers, in particular, avoided of going to stores and shopping malls and tended to meet their needs with e-commerce tools. It is observed that the middle-aged and elderly people who have not used e-commerce before have become familiar with this channel due to COVID-19. However, the purchase of non-standardized products such as clothes and shoes through the internet still poses uncertainties in consumer purchasing preferences. On the other hand, pandemic increased the purchase of food and market products both physically and through the internet, even in the short term. The use of contactless payment systems is rapidly increasing in physical exchanges. Companies that have not developed their global and national electronic commerce channels and have not made the necessary infrastructure investments for these channels have been unable to generate cash due to COVID-19 and have been left with high inventory costs. Reminding the importance of online channels to both consumers and retailers, COVID-19 pushed many retail companies to use and develop online infrastructure equipped with a good inventory management and maximized the availability of logistics service providers as a distribution agent. In “How retail sector should prepare for the period after COVID-19” report published by Deloitte,

it is recommended that the companies in the retail industry make in-store campaigns, especially using communication channels in adapting to the new normal. In this way, besides the hygiene and social distance practices in the store, the importance of taking steps that will return the consumers to their old habits is also emphasized. In summary, while old habits in non-standardized products are maintained with the hygiene and social distance required by the new normal, a structure that focuses on e-commerce and distribution channel intermediaries for standardized products will shape the future of the industry.

Manufacturing Sector

Manufacturing is also one of the sectors that is mostly affected by COVID-19. COVID-19 has particularly affected the automotive, durable household appliances, textile and chemical materials sub-sectors. For example, according to IBISWorld data, new vehicle registrations in the European Union decreased by 55% in March compared to the previous year, while in Germany, the heart of the automotive industry, this decline was 38%. Consumers who cannot see ahead avoid of large expenditures and do not demand for manufacturing sector products, especially automotive and durable home appliances. This situation is not expected to change in the short-run. It is estimated that this situation will push small and medium sized companies which cannot primarily manage cash out of manufacturing sector. Disruptions and interruptions in the manufacturing sector of China, the largest ring of the global supply chain, raise the possibility of shifting the global supply chain to Bangladesh, India, Turkey, and Vietnam. This phenomenon should be expected to occur quickly in the automotive, computer and electronic devices, and textile sectors. COVID-19 has brought vitality to the medical device and pharmaceutical sub-sectors. However, this liveliness is very unlikely to be a driving force especially in global economies, and also in our country's economy. In the study "COVID-19: What does it mean for industrial manufacturing?" carried out by PwC focuses on that the change in the manufacturing industry should happen primarily in production. COVID-19 acted as a catalyst for the rapid change of the structure of the production and pushed production to adapt to Industry 4.0 standards (Seric & Winkler, 2020). The new normal now highlights the requirement for using more workforce in production and the need to substitute automation, robots and artificial intelligence for human workforce. The future is driving the manufacturing industry towards dark factories where daylight is not required since humans are not involved in production and only robots are at work. At the same time, the role of data analytics in the manufacturing industry is becoming more and more evident. It is now a requirement to consider changes in consumer demand together with the results obtained by using large data pools for the manufacturing industry. Another pioneer phenomenon in the manufacturing industry is the widespread use of three-dimensional printers. Troubles in supply chains have forced companies to copy essential components of some products through this technology. Particularly, in the production of ventilators, which are very important in the treatment of patients with COVID-19, countries take advantage of these technologies by choosing the way to produce with their own resources. It is expected that the

capabilities of the three-dimensional printers will be used more intensively in the new normal where the global supply chain will break up and supply chains will be shaped nationally or locally. The period after COVID-19 will open the door to an era where design will gain importance and production will be done anywhere in the world.

Banking Sector

The banking sector is also strategically important for the spinning of the wheels in the global economy as in our country. COVID-19 has deeply affected the banking sector as well as other sectors. In particular, the recession in the economy poses question marks about the reimbursability of the resources that banks issued to the economies. In order to prevent a sudden wave of bankruptcy and collapse, loan payments were postponed, with the help of governments, long-term new loans and even gratuitous grants were given to businesses to provide them life line water. For example, according to IBISWorld data, approximately 20% of housing loan payments in the UK had to be postponed and raised questions about their reimbursability. Despite all these practices, the magnitude of credit risks requires looking for new capital in the sector. Although this situation can be easily overcome for public banks, it creates problems for private banks. Increasing risk is rising up the possibility of a contraction day by day in the banking sector, especially in the context of private banks. The study of PwC called "The effects of COVID-19 on the Turkish banking sector" draws attention to credit risk and suggests that banks shape their customer portfolios according to the new normal. Changing the business models in the banking sector is now a must. COVID-19 is about to start the golden age of digital banking applications, also called branch-free banking, by introducing concepts such as social distance into our lives. Branch banking applications, which are less preferred with the younger generation, have also started to be less preferred by middle-aged and older generations due to COVID-19. Therefore, an expansion in digital banking and a high level of contraction in the number of branches are expected in the sector. Elimination of players who are not strong in digital banking in the banking industry is now inevitable.

Petroleum, Natural Gas and Chemical Industry

Since trade wars are combined with COVID-19, the oil industry is experiencing one of the most devastating periods in its history. Oil prices fell below $ 20 a barrel and reached their lowest level in the last 20 years. Oil crisis with unpredictable and profound effects led to a global supply surplus in the natural gas and chemical industry, which, in turn, led to declines in energy prices. One of the biggest reasons for this situation is the significant decrease in oil demand of China, one of the world's major energy consumers. In addition to this situation, the slowdown in industry and travel restrictions with pandemic caused the supply / demand balance to deteriorate even more.

The decline in oil prices from the current level will have negative effects on the world economy. The projections indicate that oil prices may reach to the pre-

crisis levels by 2024 (McKinsey & Company 2020f). It is inevitable that these global trends will be also reflected in Turkey. In the first place, the decrease in oil prices will have a positive effect on fuel prices in the short term, but will have negative effects on commercial partners in the long term. Secondly, labor force losses are expected in the fuel distribution sector (Deloitte, 2020a). Labor losses, which will occur directly or indirectly, will cause problems in finding qualified workforce when the markets are on the rise in the long run.

The COVID-19 crisis can make a positive contribution by drawing attention to the energy transformation processes of the countries. With the pandemic, problems related to the energy crisis and decarbonization process can be accelerated. Countries are expected to develop business models for using solar and wind energy with innovative perspectives.

COVID-19: Change and Transformation in the Firms

In the second quarter of 2020, with the global outbreak of COVID-19, individuals and firms are trying to adapt themselves to an unconventional and foreign environment. In the global epidemic, individuals, firms and societies have faced practices and limitations that they have not encountered before. For example, in order to prevent COVID-19 from spreading globally, countries have closed borders, companies have stopped their activities, and have established rules such as following strict hygiene rules in the community, maintaining social distances, and ensuring individual isolation. In the new normal, these rules will have an impact on individuals' working lives in the short or long term. After COVID-19, short-term business deals in business contracts, different practices in the use of financial instruments, a shift to working-time and location flexibility are expected. The outbreak changed the relationship and interaction of firms and societies. When the new normal comes, it is a matter of curiosity how the firms will react to this different situation and how the reflections will be on the society. In addition to their primary activities, companies try to respond to social concerns in the community. However, companies, like individuals, struggled about how they would face problems that they encountered suddenly in this unusual global crisis, such as suddenly decreasing sales, the disrupted supply chain, and serious problems in employees' and their families' health.

The global crisis has caused a shock effect in the local and global markets economically, in addition to the great health and humanitarian problems. While researchers and scientists in the healthcare sector are trying to find vaccines and new ways to treat for COVID-19, business leaders and scientists are working on economic stagnation and preparing projections to help firms survive in this process with flexibility and resilience.

The priority of some companies facing the COVID-19 crisis is to survive, and companies are planning to continue their lives firstly against this unexpected

crisis. Some companies, on the other hand, plan how their positions will be after the crisis when they return to normal in this uncertain environment. Companies that make the right revisions in the way they do business quickly will be able to survive in the future or exit as a winner from this process. But the question to be asked at this point is the definition of the normal. Because the meaning of this crisis for individuals, companies and societies is still very ambiguous and will remain ambiguous for a long time.

In their report, McKinsey & Company (2020) proposed five concerns that firms should think and act on. First of all, the sudden difficulties of COVID-19 in terms of firms' workforce, customers, technology, and business partners should be identified. Secondly, the recent cash management should be specified and how to provide resistance against economic losses depending on the virus should be emphasized. Thirdly, how to return to work according to the COVID-19 situation should be put forward with a detailed plan. Fourth, how the new normal will be should be imagined and what practices will be required for institutions should be considered. Finally, it is necessary to be clear about how the competitive environment and practices will change in industries. In this context, in line with the proposed opinions, production and supply chain systems in companies and the future of manufacturing companies operating in heavy manufacturing industry will be considered, then customer expectations and responses of firms in terms of sales and marketing functions will be evaluated, and then human resources, management and leadership issues that companies have will be discussed. In addition, an evaluation will be made on the leadership of the firms during the crisis and on the academic world leadership, which plays a role in the future of society. Finally, sustainability and social responsibility, which are among the today's important issues will be mentioned. Leaders of giant firms argue that firms should have a purpose beyond profit. In August 2019, CEOs of 181 firms wrote an open letter on conscious production and consumption at the Business Roundtable, saying that sustainability and social responsibility should be considered (Gatenberg, 2019). This idea emphasizes that there should be more steps taken in this direction with the sudden social and institutional change. For these reasons, in this section, the process of change and transformation of the firms will be analyzed.

Change and Transformation in Production and Supply Chain Systems

COVID-19 affects all sectors and all functions of firms, but firms operating in the heavy manufacturing industry will be further affected. McKinsey & Company (2020f) listed in three articles why heavy manufacturing industry would be more affected. Accordingly, disruptions in the supply chain will cause problems that are difficult to manage, it will be difficult to respond in coordination due to the global chaos and making sales will be difficult or even impossible. For example, a customer who wants to buy an automotive will delay this purchasing transaction since she/he has to stay at home.

Companies will follow a more successful path in the process of change and transformation with the steps they will take in the short and medium term. With the global epidemic crisis, companies realized that they were unprepared for change. In this respect, a warning center should be created at first during the transformation process. This center should coordinate the responses of regions and business units against COVID-19. In this center, which consists of cross-functional teams, rapid decision-making opportunities should be provided. First, with the information processing, the access of the real-time data to the leaders in the warning center should be enabled and the threat map should be prepared so that risks become visible. Then, this warning center should update its data at certain intervals and a plan should be developed for the coordinated operation of all groups. Since the employee safety is taken into consideration primarily, some departments of companies should work below their capacity and remote working should be done in harmony. Third, the supply chain needs to be examined and protected. Today, firms operating in heavy manufacturing industry have hundreds of different suppliers on different continents. Firm managers may not have deep knowledge about the entire supply chain other than direct manufacturers. This indicates that firms should establish stronger relationships with direct manufacturers, evaluate their production capacities and their possible situations together with them. If companies can work in harmony with suppliers in a short time, this will prevent possible disruptions early. Another precaution that can be taken is to continue to respond to customer needs by stocking finished products or parts (McKinsey & Company, 2020f).

It is clear that the production and supply chain activities of the companies should be revised during the transformation process. Firm managers try to respond to the crisis immediately by taking proactive and fast steps when faced with the crisis. Managers must be honest and collaborative towards their employees in order to perform these activities successfully. Managers, as a general tendency, hide bad news from employees, and this actually undermines the first step to success (Edmondson, 2020). Managers are required to share disruptions in production activities, problems to be encountered in the supply chain and their results with their employees transparently and expertly. Then, managers develop strategies along with the crisis. In its report published in April, the World Economic Forum proposed five strategies that will provide flexibility and resilience in production and supply chain activities during crises. The first of these strategies is to adopt differences in supply chain structuring. Firms can cooperate with more than one resource in the supply chain. If companies cooperate with different companies operating in different regions, this will make them more flexible and resistant against risk. Firms start to produce the main resources necessary for their products and have direct control over the supply chain. Apart from this, the corona crisis reminded the company managers how localization is important in the production and supply chain. In Turkey, especially on social media, with the label 'act local' small firms encourage both producers and consumers to localize. As the second strategy, companies need to increase their investment in production technologies. With

the COVID-19 crisis, companies are enjoying the advantage of the resources they allocate for data management through their investments in technology in the past. Thanks to the technology and digitalization used in the supply chain, risk analyzes were made proactively and actions were taken more preparedly during the crisis. As the third strategy, it is suggested that factories should be more flexible in the production sector. Especially, using digital technology as a tool and making digital collaborations and managing digitally established collaborations successfully will make companies more resistant to the crisis. As the fourth strategy, it is mentioned about the importance of strategic partnerships between different sectors by developing a more intense relationship with suppliers. This enables sectors to learn from different experiences and allows them to increase their innovation capacity. Finally, manufacturing companies should review their portfolios and choose lean processes by reducing complexity. Focusing on product lines that will support their strategies, in line with their core skills and competencies, will contribute to their success even in an unexpected crisis.

Change and Transformation in Customer Behavior

When the crisis is first encountered, one of the biggest concerns of the companies is their customers. Regardless of the industry, every company should try to find responses to customer needs. Companies have tried to serve their customers by working remotely. In a survey on customer preferences, it is thought that individuals will prefer online shopping even after the crisis is over. A study conducted by McKinsey & Company on American consumers in April revealed that 75% of the consumers who used digital channels for the first time in the pandemic period will continue to use these channels when they are normalized. The crisis is also expected to lead to changes in customers' purchasing attitudes. It is still uncertain how the customers will tend towards the tourism, travel and accommodation sectors. Y and Z generations may tend to act economically at the individual level and spend less and save more in this crisis that they face suddenly. According to a survey on consumers from 41 countries, consumers spent most for grocery shopping globally (McKinsey & Company, 2020e).

Changes and Transformations in the Career and Professional Orientations of Employees

The COVID-19 crisis has shown that there must be changes in every company in the way of their doing business, regardless of the sector. This situation also made the inequalities between employees' job design structures visible. Although COVID-19 is called "the great balancer" throughout the society, it is an undeniable fact that there are injustices among employees. In his research, Kantemneni (2020) argued that employees with different incomes from different sectors will be differently affected from COVID-19 crisis. For example, Babuji et al. (2020b) show that in the COVID-19 process, four main business categories have emerged according to the organizational responsibilities that firms must fulfill. Jobs that are allowed to be performed remotely are classified as elite works during the COVID-19 process. Elite

works are works that can be carried out using remote access method using the information that employees have. When elite employees do their jobs from home, there is no change in their income or their income changes at a very small proportion. The fact that the income of elite employees is not affected also causes their purchasing powers to be unaffected. Individuals working in elite jobs are considered to be the most supportive group of the society in terms of both economic and general health. Since individuals working from home are at home, they contribute to public health by not getting infected and not spreading the virus. In economic terms; as the income of these individuals was not affected by the general situation, they continued to shop online and were able to meet their compulsory needs. For example, those working in high-tech companies are included in this group. Facebook, Google, Twitter, and Amazon encouraged employees to work remotely and tried to provide the necessary infrastructure for employees to work comfortably at their homes. The second category includes line workers. Some of the individuals working in transfers, markets, and pharmacies lost their jobs and some of them faced with too much decline in their wages. The health of employees in this group is also at risk. Despite being in the high-risk group, they could not take proper measures as healthcare workers do, and this caused them to become more easily infected. In the third group, subcontracting works are included. Some of the subcontracting works continued to be performed with the measures taken with the COVID-19 crisis, while some continued to be carried out despite they threat to human health. For example, in India, which is one of the less developed countries, some subcontractors collected medical waste without protective masks and clothes and then they became infected. One of the least affected business groups from the COVID-19 crisis is the way of doing business that flexible economies have used in recent years. For example, the online service in the food and beverage industry started long before the crisis. Firms providing online food and beverage services continued to their operations and employees continued to provide services online and adapted quickly, even though they were closed during the pandemic process and did not provide customer service at their locations. As in the food and beverage sector, the jobs in which social isolation can be achieved by using remote technology during the crisis were identified. It is expected that firms which can continue their activities with remote access very quickly will successfully carry out change and transformation with the role played by technology in the new period as we call the new normal (Bapuji et al., 2020a).

The COVID-19 process is expected to bring changes in the future career plans of the firm employees. The pandemic process directly affected the career experiences of the employees, evaluation of the emerging opportunities and the direction of their career preferences. For example, healthcare workers worked well over their ordinary working hours, white collar workers were directed to remote work in general, and some of the workers in the service sector lost their jobs. Akkermans et al. (2020) call this situation as a career shock. Pandemic is a very damaging and extraordinary situation and events occur beyond the control of employees. Although most professional groups are negatively

affected by this situation, companies operating in the software industry and individuals providing online sports coaching services became strengthened in their careers. In addition, some groups of healthcare professionals, such as nurses, began to be respected more by the community. This situation can be evaluated as a positive outcome resulted from a negative event. It is expected that new millennium and Z generations make different decisions in the new normal with the effect of the pandemic in determining their career choices.

Change and Transformations in Leadership

The fact that the corona crisis is complex and complicated by its nature emphasizes that the three mechanisms of decision making, which are leadership, management, and commanding should be used together. Grint (2020), in his study, emphasizes the need for the COVID-19 crisis to be adapted, integrated and addressed as a serious problem.

The COVID-19 crisis, so to speak, has turned the world inside out, so little predictions can be made about exactly how the new normal will look like when the situation stabilizes. The global epidemic has also pushed the boundaries of the economic and health systems of developed and egalitarian countries, suggesting the need to make changes in the perspectives of both country and firm leaders. Although individuals are generally looking for a leader who is charismatic and able to motivate them, the pandemic crisis led them to look for leaders, who will share, so to speak, the sad truth with them, will be honest and reliable, and will take the right steps to maintain the system (Grint, 2020). The leader, as a manager, is expected to emphasize that the problem can be resolved over time. Although corona virus is a complex, difficult problem, it is not unsolvable forever. For example, theoretically, it is known how to vaccinate, researchers are working on it, and it is thought that it will be available after a certain period of time. In this case, the problem will be solved spontaneously over time. Secondly, the leader needs to keep the individuals together and make the problem adaptable. When evaluated from this perspective, the corona virus crisis will be seen as a problem that can be managed collectively even if it is not resolved in a short period of time. For example, leaders ensure to work remotely, adapt to working from home, and use the resources correctly by directing the isolation process. Finally, the corona virus crisis is a problem that leaders must make effective, fast and guiding decisions. For example, it is important to suspend the activities of some firms for a certain period of time in the sectors and to reveal this in an irreversible way. In this context, the leader must fulfill the role of commander. Leaders are expected to perform these three roles in a balanced way. Additionally, the academic world has also been affected by the sudden crisis, which has made it necessary to rethink the role and way of doing business in the academia. Empathy, compassion and flexibility are the leadership behaviors necessary to manage the crisis in the academic world (Doraiswamy, 2012). This process provides an opportunity to redesign the educational environment for academia leaders who are goal-oriented, risk-taking and long-term strategic thinking. The suddenly emerging global epidemic creates an opportunity for the world of academia to change

the status quo, organizational norms, and ongoing old behavior. The biggest step taken in this direction is to adapt quickly to distance education. This point, which has been reached after the crisis has been overcome, will provide an opportunity for students who are disadvantaged in terms of physical or learning conditions, and non-students for the proliferation of vocational education (Fernandez & Shaw, 2020). Thus, leaders who take charge in the academy will redefine their corporate responsibilities and develop innovation that will benefit society.

Change and Transformation in Digitalization Processes

The COVID-19 crisis particularly emphasized the importance of digitalization for companies. McKinsey & Company (2020c) states in its report in May that digitalization, which companies are going through rapidly during the pandemic process, will also be essential in the recovery phase. The only thing that is clear in all the uncertainty brought by COVID-19 is that the future requires more digital adaptation. With the pandemic, the digital adaptation process, which was thought to take place within five years by companies and customers, occurred only in eight weeks. To give an example on a sectorial basis, banks are important actors in managing the credit needs of customers with digital banking services, the retail sector responds to the needs of its customers with online order and delivery channels, all educational institutions, including universities, continue their educational activities through online platforms, and the manufacturing sector continues its activities with its "dark factory" model.

While determining their digital strategies, companies not only should focus on digitalization, but also should pay attention to the activities that should be corrected in their operations. They should aim to correctly direct data and digital competencies and turn them into net projects to create new value for consumers. Instead of making big model changes in digital transformation, customers need to use a deep knowledge, operational perspective and the capabilities of the company correctly.

Although many of the managers are satisfied with the fact that the companies adapt to work remotely so easily, remotely working imposes responsibilities on the companies. In fact, the teleworking system will mean more than just providing hardware and software to the employees. Cooperation, transparency, and flexibility that companies try to establish in the office environment should also be provided in a remote working environment. For example, a software company created random virtual video matches to move random matches in physical offices to the virtual environment (McKinsey & Company, 2020d). Companies will also be positively affected by distance work in terms of human resource diversity. People with disabilities or parents will work more efficiently in this system. After COVID-19, companies are required to reorganize their strategies, structures, processes, employees and technology. This enables them to take steps to create value and protect the value they create. In fact, this situation brings to mind the agility. If companies can act agile, they will achieve

high performance with digital transformation against their competitors not only in the short term but also in the long term. Agility based firms are learning companies and they focused on improving their analytical abilities.

The companies are required to have a balance between past works and future steps that the company will take to succeed in the new normal in digital transformation for corona virus. It should be investigated what attitudes and activities firms should terminate, what they should reveal as new activities, which of the existing activities should be expanded.

Sustainability and Social Responsibility in Change and Transformation
Sustainability, environmental management and corporate social responsibility is one of the issues that companies normally need to focus on. Strategies for environmental management went beyond a matter of preference and became a strategy that must be followed. Environmental strategies are seen as a source of resilience and competitive advantage. In this process, companies should rethink their social responsibilities in order to respond to the economic results encountered and to alleviate the effects of the crisis.

Video conferences, shortened supply chain processes, and introduced new production lines that companies have to carry out with the COVID-19 crisis will help companies sustain their environmental sustainability if the crisis continues. Firms realize that they should be prepared for the climate change shocks that may be experienced in the future by taking lessons from the effect of this infectious disease that has affected the whole world and created a shock effect. Because climate change is a situation that threatens the health of all communities like COVID-19. Today, a number of big companies have determined green strategies and have achieved an unexpected saving with the strategies they protect natural resources. Firms will begin to see environmental strategies as a source of resilience and competitive advantage. In this context, a data-oriented approach should be adopted and analytical agile teams should be created. Environmental management and sustainability should be evaluated, managed and measured as an element of the value chain.

Conclusion

In summary, COVID-19 sparked change and transformation in many sectors and companies. Agriculture and livestock sector, which was pushed to the background earlier, now has emerged as a strategic sector. Now countries have grasped the importance of becoming self-sufficient to ensure food supply security and are taking steps in this direction. The tourism sector stands out as the sector that has come to an end in its golden age. In the upcoming years, it is expected that the costs in the tourism sector will increase and the sector will contract. In addition, the understanding of tourism is expected to evolve in the context of hygiene, social distance, and isolation. The transportation sector is one of the sectors that have been hit hard by COVID-19. Especially

in the transportation sector, it has become a necessity to substitute passenger transportation with freight transportation. The acceleration of applications such as e-commerce with COVID-19 has opened the way for, especially, the cargo transportation. E-commerce is a candidate to be the backbone of the retail sector. Although the old business concepts are expected to continue for products such as non-standardized shoes and clothing, e-commerce, with the support of the technology, is a candidate to change these old concepts. The development and radical change in the manufacturing industry is expected to be based on capital rather than the labor force. Adaptation to Industry 4.0 will accelerate more, and dark factories where not-human robots and artificial intelligence undertake the entire production will wait for us in the future. Moreover, big data and data analytics will be used to detect rapidly changing consumer preferences in the manufacturing industry. In addition, three-dimensional printers will be more involved in the manufacturing industry to eliminate the problems brought about by the globally deteriorated supply chain, and component design will be at the forefront instead of component production. Finally, it is inevitable that banking, which has an important place in the service sector as well as tourism, will focus more on digital platforms and grow as branch-free.

References

Akkermans, J., Richardson, J., Kraimer M. (2020). The COVID-19 crisis as a career shock: Implications for careers and vocational behavior. *Journal of Vocational Behavior*. doi. org/10.1016/j.jvb.2020.103434

American Hotel & Lodging Association. (2020). COVID-19's Impact on the Hotel Industry. Retrieved from: https://www.ahla.com/covid-19s-impact-hotel-industry

Bank for International Settlements. (2020). Macroeconomic effects of COVID-19: An early review. *BIS Bulletin* No: 7.

Bapuji, H., Bakker F.G.A., Brown, J., Higgins C., Rehberin K., Spicer A. (2020a). Business and society research in times of the corona crisis. *Business & Society, 1*-12. doi. org/10.1177/0007650320921172

Bapuji, H., Patel, C., Ertuğ, G., Allen, D.G. (2020b). Corona crisis and inequality: Why management research needs a societal turn. *Journal of Management, 1-18,* doi: 10.1177/0149206320925881

BBC News. Coronavirus: Thousands of North Sea oil and gas jobs under threat. (2020). Retrieved from: https://www.bbc.com/news/uk-scotland-scotland-business-52446555

Food and Agriculture Organization of United Nations. (2020). Q&A: COVID-19 pandemic – impact on food and agriculture. Retrieved from: http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/en/

Business Insider. (2016). The world's biggest meat producer is planning to test out robot butchers. Retrieved from: https://www.businessinsider.com/jbs-meatpacking-testing-robot-butchers-2016-10

Deloitte. (2020). COVID-19 Turizm ve Konaklama Sektörü Duyarlılık Araştırması. Retrieved from: https://www2.deloitte.com/tr/tr/pages/consumer-business/articles/COVID-19-turizm-ve-konaklama-sektoru-duyarlilik-arastirmasi.html

Deloitte. (2020). Perakende sektörü COVID-19 sonrası döneme nasıl hazırlanmalı? Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/consumer-business/perakende-sektoru-COVID-19-sonrasi-doneme-nasil-hazirlanmali.pdf

Deloitte. (2020a). COVID 19'un Sektörel etkilerini anlama. Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/tr/Documents/energy-resources/covid-19-un-petrol-sektorune-etkileri.pdf

Doraiswany, I.R. (2012). Servant or leader? Who will stand up please? *International Journal of Business and Social Science, 3 (9),* 178-182.

Duffy, C. (2020). Big tech firms ramp up remote working orders to prevent coronavirus spread. CNN. Retrieved from: google-work-from-home-coronavirus/index.html.

Edmondson, A. (2020). Don't hide bad news in times of crisis. *Harvard Business Review.* Retrieved from: https://hbr.org/2020/03/dont-hide-bad-news-in-times-of-crisis

Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy. Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3557504

Fernandez, A.A., Shaw, G.P. (2020). Academic leadership in a time of crisis: The Coronavirus and COVID-19. *Journal of Leadership Studies, 14,* 1.

Gartenberg, C. (2019). 181 Top Ceos Have Realized Companies Need a Purpose Beyond Profit. *Harvard Business Review.* Retrieved from: https://hbr.org/2019/08/181-top-ceos-have-realized-companies-need-a-purpose-beyond-profit

Grint, K. (2020). Leadership, management and command in the time of the Coronavirus, *Leadership, 1-6.*

Hoque, A., Shikha, F. A., Hasanat, M. W., Arif, I., Hamid A. B. A. (2020). The Effect of Coronavirus (COVID-19) in the Tourism Industry in China. *Asian Journal of Multidisciplinary Studies,* 3, 52-58.

IBISWorld. (2020). Coronavirus Update: Industry Fast Facts. Retrieved from: https://www.ibisworld.com/industry-insider/coronavirus-insights/coronavirus-update-industry-fast-facts/#accomodationandfoodservices

ING. (2020). Four scenarios for the global economy after COVID-19. THINK Economic and Financial Analysis. Retrieved from: https://think.ing.com/articles/four-scenarios-for-the-global-economy-after-COVID-19

JBS and Robot Butchers. Retrieved from: https://digital.hbs.edu/platform-rctom/submission/jbs-and-robot-butchers/

Le, T.T., Andreadakis, Z., Kumar, A., Román, R. G., Tollefsen, S., Saville, M., Mayhew, S. (2020). *Nature Reviews*, 19, 305-306.

Kantemaneni, N. (2020). The impact of the COVID-19 pandemic on marginalized populations in the United States: A research agenda. *Journal of Vocational Behavior,* doi.org/10.1016/j.jvb.2020.103439

McGrath, R., McManus R. (2020). Disovery-Driven Digital Transformation. *Harvard Business Review, May-June*

McKinsey&Company. (2020a). Oil and gas after COVID-19. Retrieved from: https://www.mckinsey.com/industries/oil-and-gas/our-insights/oil-and-gas-after-covid-19-the-day-of-reckoning-or-a-new-age-of-opportunity#

McKinsey&Company. (2020b). Beyond coronavirus: The path to next normal. Retrieved from: https://www.mckinsey.com/business-functions/risk/our-insights/covid-19-implications-for-business

McKinsey&Company. (2020c).The COVID-19 re-covery will be digital: A plan fort he first 90 days. Retrieved from: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-covid-19-recovery-will-be-digital-a-plan-for-the-first-90-days

McKinsey&Company. (2020d). From thinking about the next normal to making it work: What to stop, strat and accelerate. Retrieved from: https://www.mckinsey.com/featured-insights/leadership/from-thinking-about-the-next-normal-to-making-it-work-what-to-stop-start-and-accelerate

McKinsey&Company. (2020e). Consumer sentiment evolves as the next 'normal' approaches. Retrieved from: https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-global-view-of-how-consumer-behavior-is-changing-amid-covid-19

McKinsey&Company. (2020f). A response framework for advanced industries companies. Retrieved from: https://www.mckinsey.com/industries/advanced-electronics/our-insights/coronavirus-a-response-framework-for-advanced-industries-companies

Meat processing Automation Robots. Retrieved from: https://www.robots.com/applications/meat-processing-automation

PwC. (2020). COVID-19 krizinin Türk bankacılık sektörü üzerindeki etkileri. Retrieved from: https://www.pwc.com.tr/tr/sektorler/bankacilik-sermaye-piyasalari/yayinlar/COVID-19-krizinin-turk-bankacilik-sektoru-uzerindeki-etkileri.html

PwC. (2020). COVID-19: What it means for industrial manufacturing. Erişim adresi: https://www.pwc.com/us/en/library/COVID-19/coronavirus-impacts-industrial-manufacturing.html

Schmidhuber, J., Pound, J., Qiao, J. (2020). COVID-19: Channels of transmission to food and agriculture. Rome, FAO. https://doi.org/10.4060/ca8430e

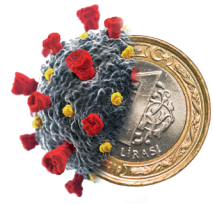
Seric, A., Winkler, D. (2020). Managing COVID-19: Could the coronavirus spur automation and reverse globalization?. Industrial Analytics Platform. Retrieved from: https://iap.unido.org/articles/managing-COVID-19-could-coronavirus-spur-automation-and-reverse-globalization

Statista. (2020). Airline passenger revenue loss due to coronavirus outbreak worldwide in 2020, by region of airline registration (in billion U.S. dollars). Retrieved from: https://www.statista.com/statistics/1106679/coronavirus-airlines-passenger-revenue-region/

Statista. (2020). COVID-19's impact estimate on passenger revenue of airlines by region 2020. Erişim deresi: https://www.statista.com/topics/6178/coronavirus-impact-on-the-aviation-industry-worldwide/

World Trade Organization. (2020). Trade set to plunge as COVID-19 pandemic upends global economy. Retrieved from: https://www.wto.org/english/news_e/pres20_e/pr855_e.htm

World Economic Forum. (2020). How to rebound stronger from COVID-19. Resilience in manufacturing and supply systems. Retrieved from: https://www.weforum.org/whitepapers/how-to-rebound-stronger-from-covid-19-resilience-in-manufacturing-and-supply-systems



Effects of COVID-19 Crisis on Employment and Working Arrangements

Ahmet Cevat Acar

Prof. Ahmet Cevat Acar

Prof. Ahmet Cevat Acar graduated from Atatürk University Faculty of Business Administration. He completed his master's degree at Istanbul University (IU) Faculty of Business "Personnel Management and Industrial Relations"; received his PhD from the IU Institute of Social Sciences, "Business and Personnel Management and Organization". He was the vice-Chancellor at IU between the years of 2010-2012. Acar has works in education, research, consultancy, publications and projects in human resources management, management and organization, organizational behavior areas. Conducting TÜBA Presidency between 2012-2019, IU Faculty Member Dr. Acar is the member of T.R. Presidency Education and Teaching Policies Council and TUBA Academy Council Member.

Effects of COVID-19 Crisis on Employment and Working Arrangements[1]

Ahmet Cevat Acar
Istanbul University
acara@istanbul.edu.tr

Abstract
COVID-19 pandemic, which emerged in China in the last months of 2019 and spread all over the world, has caused a "health crisis" at the global level, and measures fort his health crisis have caused a "socioeconomic crisis". In this crisis, a contraction in economies and employment occurred and unemployment increased. At the same time, the implementation of some flexible working methods has become widespread, especially "working from distance/home". It is envisaged that the precautions will continue until the definitive solution to the COVID-19 pandemic is found, and that the outbreak and measures will continue, albeit with decreasing, to affect business and community life.

The view that "nothing will be the same anymore" is frequently and widely expressed due to COVID-19 crisis. However, despite these views, that gather a lot of supporters, it seems controversial that the effects or changes experienced in the short term, especially in working methods, will lead to a permanent and radical transformation. Because the effects and changes of the crisis on employment and working method only means an increase in some situations and practices that are already known and practiced. On the other hand, it can be said that the widespread use of some flexible working methods such as "working/doing business remotely" due to compulsory reasons will have an increase effect in the implementation of these methods.

If there is no serious error in the predictions about its duration and effects, it is expected that the negative effects of the crisis on economy and employment will continue, albeit with a decrease, even after the pandemic. Depending on the developments especially in information technology and other fields, the crisis is thought to increase the prevalence and application rate of remote work and some flexible working methods, which are already on the agenda and implemented in some works and businesses. However, it is considered that this will not lead to a revolutionary/permanent change that will replace the traditional system that can be called "transformation" in the short term.

Keywords
COVID-19, arrangements, teleworking, flexible work, employment

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The COVID-19 pandemic that broke out in the city of Wuhan in China in late 2019 and spread to many countries including Turkey in a very short time has led to a major crisis that involved a "health crisis" and a "socio-economic crisis" on a global scale and that is named after the pandemic itself. Measures for managing the "health crisis" caused by the pandemic also resulted in a socioeconomic crisis with their rather sudden and dangerous effects that pose a threat to the economy and the social life. Economic activity have slowed down and shrunk significantly in many sectors and completely stopped in some of them causing serious recession and constriction in economies along with a serious increase in unemployment rates. The most significant impact or effects of the crisis on employment and business methods have been the shrinkage in employment and an increase in unemployment and also the implementation of some more flexible work methods, especially "remote work/teleworking". The size and duration of these impacts depend on how long the crisis and the precautions taken will last. It is estimated that the measures for the COVID-19 pandemic will last until it is permanently resolved and that the pandemic and these measures will continue to affect business and social life, albeit less severely.

This study investigates the present and potential effects of the COVID-19 global pandemic and the measures taken to address the pandemic on employment rates and work conditions and whether these effects will lead to a permanent "transformation". In this context, after the global pandemic of COVID-19 and the measures taken against the pandemic are explained, the present and potential effects and consequences of these will be discussed in terms of employment and working conditions in particular and on economies and societies in general.

COVID-19 Crisis = Health Crisis + Socioeconomic Crisis

Coronavirus pandemic (COVID-19) that originated in the Chinese city of Wuhan in December 2019 and spread to various countries throughout the world was announced as a global outbreak (pandemic) by the World Health Organisation (WHO) on March 11, 2020 and caused a major "crisis" on a global scale.

The term "crisis" (Özgüç, 2020) is defined as threatening, hazardous and dangerous events and circumstances which emerge suddenly and rapidly, causing terror and panic, requiring immediate response and which are difficult to deal with by means of existing mechanisms of defense and administration. Having first appeared in China and turned into a pandemic, COVID-19 led to a global depression named "COVID-19 Crisis" as it exhibited all signs of a crisis.

First of all, COVID-19 is a "health crisis". One reason is that the virus spread very rapidly after its first incidence and caused global terror and panic with its threatening and harmful effects on human health challenging the healthcare systems of countries, eventually forced them to put their emergency healthcare and crisis management measures into effect.

In addition to their generally positive impact and effects on human health, the extraordinary health measures taken against the pandemic, which "restricted social mobility and contact" in particular, have affected all parts of the economy and social life seriously and negatively on a national and international level causing the economic and social activities to slow down/halt and decline. In other words, unlike its counterparts, this health crisis has also gave rise to an "economic and social crisis" on a global scale.

Based on this picture, it would be reasonable to define the COVID-19 as an extensive and complex, "two-fold" global crisis consisting of the elements or dimensions of (i) healthcare crisis and (ii) "socioeconomic crisis" triggered by this health crisis and formulate this as **COVID-19 Crisis = Health Crisis + Socioeconomic Crisis.**

The health dimension of the crisis refers to the threat and hazard that the virus directly poses to human health and to the crisis management for the prevention of these hazards and the recovery of the loss that they cause. The economic and social dimension to the problem is related to the negative effects of the health measures taken essentially to deal with the pandemic and the damage they cause to the economy and social life and their management.

Such "two-fold/two-dimensional" or two-factor description of the crisis is also appropriate for a more comprehensive and accurate understanding of such a global crisis that affects the individuals and various aspects of social life as well as employment and work life on a global scale and for the effective "management" of this global crisis.

Health Dimension: Health Crisis

The origin or source of the crisis is the coronavirus (COVID-19) pandemic that was declared a pandemic by WHO on March 11, 2020 after it broke out in the Chinese city of Wuhan in December 2019 and, from the first part of 2020 onwards, very rapidly spread to various countries.

This rapid spread and its unexpected occurrence primarily led to a health crisis with its observed and potential threatening effects that challenge the existing capacities. Following the identification of cases in all countries where the pandemic spread and also in Turkey, within the context of "emergency and crisis management" implemented by governments, institutions and other units, a great number of health measures were put into effect firstly as emergency precautions to put the pandemic under control and prevent it and, secondly as precautions for the treatment of infected patients.

The purpose of the "emergency health measures" that were implemented was to slow down the speed of the pandemic and keep it on a manageable level by putting it under control. The aim, therefore, was to prevent the increase in the number of patients from exceeding the diagnostic and treatment capacities of countries, to treat the patients with existing facilities and methods and to develop an effective vaccine and drug to finally solve the problem as well as to buy time for achieving "herd immunity" where the virus would become harmless through mutation (Tatlıyer, 2020).

Examples to these emergency health measures could be (Turkish Ministry of Health, 2020a) *the curfew in order to restrict or prevent human mobility or contact both on national and international levels, restrictions-bans on national and international travel, suspensions-shutdowns in workplaces and schools; hygiene and the use of masks, examination of symptoms in airports and customs, introduction of coronavirus screening tests, implementation of emergency and crisis management policies in health institutions as well as prioritizing pandemic cases in healthcare services and informing the public on issues such as virus protection and the healthcare professionals on the diagnosis and treatment of the virus*. In addition to these emergency measures, other measures were taken for the diagnosis, follow-up and treatment of the infected patients and to permanently solve the problem, which needs more time. The measures taken within this scope were;

- *Development of facilities and applications for testing (diagnosis),*
- *Diagnosis, follow-up and quarantine procedures for confirmed contact cases and suspicious contact cases,*
- *Allocation of diagnostic and treatment facilities primarily to pandemic management, excluding other medical cases requiring emergency response,*
- *Promotion and stimulating the production and supply of masks, disinfectants, protective clothing and other medical supplies and tools,*

- *Promoting exchange of information and experience between medical experts/supervisors, units and countries to deal with the pandemic on national and international levels,*
- *Trials of "varied/flexible treatment algorithms" in the treatment of medical cases resulting from COVID-19 using existing medication and facilities,*
- *Promoting and supporting studies on vaccination and medication.*

Although there were differences in the capabilities and crisis management policies of countries, it can be said that were generally similar in the measures they took and the results they achieved.

Impact and Consequences

In the COVID-19 pandemic as of 21.06.2020, the number of daily new cases reached 138.926 and that of the infected patients reached 8.708.008 with deaths reaching 461.715. (WHO, 2020). In Turkey, 2.945.240 people have been tested (as of 21 June 2020), 187.685 cases have been recorded and, of the confirmed cases, 160.240 people have recovered and around five thousand (4.950) people have died since 11 March 2020 when the first case was reported. In Turkey, the Positive Case-to-Test was realized as 6,4%, the Recovered Case-to-Test Ratio as 85% and Death-to-Case Ratio as 2,6%. Based on this data, Turkey performed considerably well in pandemic response and in terms of the results achieved when compared to other countries. It is a generally accepted and observed reality that, in accordance with these rates, the death-to-case ratio identified in this pandemic is not any higher than similar other pandemics and even lower than some of them, and also, the "infection speed" of COVID-19 is higher than its counterparts due to which it was capable of affecting almost all countries on a global scale.

Based on a few months of experience with this pandemic/crisis, it can be said that the aforementioned health measures -to the extent that they were implemented comprehensively and in a timely manner- have proved effective in controlling and managing the pandemic and produced expected results. It is evident that the emergency measures that involved restriction and limitation of social mobility and contact in order to prevent the pandemic from spreading made it possible to put the infection speed of the pandemic under control in a period of 1-2 months. Meanwhile, the COVID-19 patients were treated using existing medication and facilities as modified based on experience which produced a degree of success, albeit limited. Indeed, since March 11 when the first case was reported in Turkey, the number of daily cases constantly increased and reached its peak with 5138 cases a month later (April 12, 2020) and then decreased after that date -especially after April 21- and fell to 972 on May 21; then after staying below 1000 for about three weeks (after the lifting of many restrictive measures), it still remained below 1000 until June 12 and went beyond 1000 on June 13 and finally reached 1562 on June 14. This rate then took a downward turn with the number of new cases reaching 1.192 on June 21, 2020 (Turkish Ministry of Health, 2020b). With the normalization, a similar trend was observed in other countries (WHO, 2020).

In the global effort to deal with the pandemic, Turkey is among the leading countries in the world. It can be said that this success is the result of a number of facts that involve the organization of the necessary bodies and introduction of relevant measures without delay, Turkey's good standing in terms of the health infrastructure and manpower and effective implementation of scientific decisions taken in the course of the crisis management process[2]. However, a vaccine or a drug that is considered to be the permanent solution of the problem has not yet been found and studies on a possible vaccine or drug are still in process in many countries, including Turkey.

The general opinion on the permanent solution of the COVID-19 global pandemic is that 1) "herd immunity" must be achieved with at least 50-60 percent of the population infected with the virus, 2) an effective vaccine must be developed, 3) the virus must become harmless through mutation. It is estimated that herd immunity will cause the death of a lot of people in a short time and the mutation will take a long time. The development of an effective vaccine which is thought to be the best solution, on the other hand, is accepted to be a too challenging a task. The shortest time it has taken for a vaccine to be developed, globally, so far is five years for the Ebola vaccine. While ceaseless efforts are being made in many countries in the world, including Turkey, in order to develop a vaccine, it is estimated that an effective vaccine could be developed in 12 to 18 months at the earliest and it is quite likely that a vaccine will not be developed in 18 months time. Another prediction is that the crisis caused by the pandemic will last one or two years -worsening and improving at times-, two or three waves of pandemic will occur and the countries will have to implement semi-quarantines for about two months on each wave (Tatlıyer, 2020).

Economic and Social Dimension of the Crisis: Socioeconomic Crisis

Although the measures taken within the context of the management of the health crisis caused by the COVID-19 pandemic proved successful in slowing down its spread and putting it under control, it also created new concerns as the economic and social problems grew even deeper and more widespread. In all countries that have been affected by the pandemic, including Turkey, health measures against the pandemic have not only caused a serious slowdown, constriction and decline in the economic and social life and activities, it also led certain business activities to a complete shutdown. These impacts, circumstances and consequences that arose in connection with the pandemic have given rise to a global socioeconomic crisis with due to their sudden emergence and the fact that they require emergency response, challenging existing capabilities and mechanisms with their threatening, harmful and widespread impacts.

[2] The fact that a "Coronavirus Science Committee" had been formed under the Ministry of Health much earlier than the first case was reported in Turkey and the Committee's advice in decisions on the pandemic response was taken with utmost compliance contributed greatly to the efficiency of these measures and the public's adoption of them.

As it is closely dependent on a health crisis where it is not certain which direction the pandemic will take or when a permanent solution will be found, this socioeconomic crisis has emerged as one that is different from its historical counterparts and is very difficult to manage.

Economic and Social Impacts of the Crisis

While the economic and social impacts of the COVID-19 are visible and concrete, data on these impacts and consequences is not sufficient. One reason for this is that this pandemic crisis is only a recent concern that has been going on for the last few months. Therefore, it would be wise to be "cautious" when making predictions and evaluations regarding these impacts and consequences based on our limited experience and data from this short period.

In spite of these limitations, the socioeconomic crisis arising from the COVID-19 pandemic can be said to have;

1. *Caused financial recession and constriction,*
2. *Negatively affected employment and increased unemployment*
3. *Caused changes to employment conditions and working methods which also gave rise to new problems and situations with respect to economy, sectors, corporations/businesses, households and employees.*

Economic Recession and Constriction

The most visible impact of the health crisis is the slowdown, recession and constriction in the economies of almost all countries. Significant restriction of human mobility in order to take the pandemic under control led to the constriction and slowdown of business activities in most sectors with almost complete shutdowns in some lines of business including tourism, civil aviation, transportation and other activity by artisans and artists.

Based on the estimations of the World Health Organisation (WHO), it is predicted that the global trade volume for 2020 will be at least 13% lower than the previous year and, in the worst case scenario, fall by 32% and this percentage will reach double-digit numbers throughout the world causing an economic constriction that is far greater than the 2009 crisis. It is expected that the export from North America and Asia as well as manufacturing sectors with complex value-chains such as electronics and automotive and the trade in services directly affected by the restrictions on travel and transport will receive the biggest blow in the crisis. While a degree of recovery is expected in global trade in 2021, it is still predicted to be dependent on the duration of the pandemic and on the effectiveness of the policies that are implemented (WTO, 2020; Balcı, 2020). Similarly, according to IMF's estimations in April, 2020 based on the data for the first part of 2020, the global economy, which grew by

2,9% in 2019 will shrink by 3% in 2020, and this global shrinkage is estimated to realize at a much higher rate of 6,1% in advanced economies (ILO, 2020a; Balcı, 2020). And Turkey's GDP, which had increased by 6% in the last quarter of 2019 slightly declined in the first quarter of 2020 and rose by 4,5%. Based on the latest estimations of IMF, the growth in the Emerging Markets and Developing Countries group, which Turkey is a part of, will only be 1% which is the lowest (the best) shrinkage rate among all categories. On the other hand, India (1,9%) and China (1,2%) which is the source of the pandemic, are among the few countries who are predicted to show a positive growth even in 2020 (IMF, 2020; Balcı, 2020).

It is further estimated that, among the country groups, the highest shrinkage will be in the Eurozone with 7,5%, Russia will have a constriction of 5,5% and the fact that the pandemic spread to Russia with delay might even deepen the problem. As Turkey's exports are mainly to these countries, Turkey is estimated to be negatively affected by this situation. Based on the latest estimations of IMF, there will be 5% shrinkage in Turkish economy in 2020 which will be followed by a growth of 5% in 2021. The sharp drop in tourism receipts emerges as a significantly negative impact both on GNP and on the current deficit (Balcı, 2020).

It is asserted that the overall impact of the crisis on sectors and economies will be in a downward trend while affecting some sectors even positively. In this sense, the **negatively affected sectors** will include the "entertainment" sector followed by tourism and leisure, aviation and maritime industries, automotive, construction and realty, manufacture (non-essential), financial services, education and oil-gas industries. It is projected that the **"most positively" affected sectors** will include "alternative energy sources" followed by medical supplies and services, food processing and retail, personal care and hygiene, informatics and communication technologies, e-commerce and agriculture (Şeker et al., 2020, ss. 128-129). Additionally, it is estimated that the economic constriction resulting from the COVID-19 pandemic will last at least 2-3 years and the national economy as well as global economies will only reach the 2019 levels in 2023.

Employment and Unemployment

It is an observed fact and generally acknowledged view that the economic recession and constriction caused by the global crisis will lead/have led to (1) decline in employment, (2) increase in unemployment and (3) a change to the negative in terms of employment.

It is reported that, approximately 2,26 billion employees (about 70% of the world's total labor force) throughout the world are negatively affected by the measures taken to fight the global pandemic of COVID-19. According to the recent data from ILO (International Labor Organization), in the first quarter of

2020, the total employment in the world based on working hours has declined by 4,5% compared to the figures before the crisis (the last quarter of 2019). And if we consider the weekly working hours as 48 hours, this figure corresponds to 130 million (full-time) employment. According to ILO, the constriction in employment will persist and the total working hours in the second quarter of 2020 will drop by 10,5% compared to the last quarter of 2019, which means a loss of more than 300 million hours of full-time employment (ILO, 2020a; Balcı, 2020). However, these figures should not be interpreted as reflecting the unemployment of 300 million people. The reason is that a constriction in employment may not always occur in the same way in terms of working hours and the number of employees. Especially in the short-term, the constriction based on the number of employees may be lower due to the measures taken by employers to reduce working hours without discharging, government bans and restrictions on layoffs and reduction of working hours. However, as the crisis persists, it is expected that the constriction of employment rises in terms of the number of employees leading to the increase in unemployment rates as well as a drop in labor force participation rates.

It is projected that unemployment due to the economic crisis arising from the pandemic in Turkey and in the world will affect the business activities in areas of manufacture, wholesale and retail trade, hospitality and food industries, real property, culture, arts, entertainment and sports which constitute a large part of the economy and employment. The industries moderately or severely affected by the crisis are reported to be construction, transportation and warehousing, vocational, scientific and technical activities, administrative and aid services and other service activities (ILO, 2020a; Balcı, 2020). In the first two months of 2020, the unemployment rate in Turkey realized as 12,7%, a figure slightly lower than the last quarter of 2019. However, the same decline was seen in the labor force and employment participation rates in the same months. In addition to the decline in the labor force, which could be interpreted as a sign of constriction, we must also take into account the fact that the pandemic had not spread to Turkey in those months. The last data provided by TÜİK (June 2020) shows that the unemployment rate is 13,4% and the labor force participation rate is 49%.

Table 1. Labor Force, Employment and Unemployment Rates and Figures of Turkey

2019												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Workforce ('000)	32 265	32 567	32 704	32 619	32 462	32 553	32 617	32 640	32 551	32 560	32 552	32 340
Employment ('000)	27 926	28 105	28 169	28 085	27 926	28 031	28 011	28 066	28 066	28 177	28 276	28 123
Unemployment rate (%)	13,4	13,7	13,9	13,9	14,0	13,9	14,1	14,0	13,8	13,5	13,1	13,0
Labor force participation rate (%)	52,9	53,3	53,5	53,2	52,9	53,0	53,0	53,0	52,8	52,7	52,6	52,2
2020												
	January	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
Workforce ('000)	32 067	31 505	30 104	29 388	29 684	30 632						
Employment ('000)	28 004	27 509	26 133	25 614	25 858	26 531						
Unemployment rate (%)	12,7	12,7	13,2	12,8	12,9	13,4						
Labor force participation rate (%)	51,7	50,7	48,4	47,2	47,6	49,0						

Source: *TUIK*

Young people, especially young women, are expected to be affected by the COVID-19 crisis more severely than adults (25+ years of age). In addition, the countries in the high income group are expected to receive more negative effects. Indeed, since the start of the global pandemic, 17% of the young population have fallen out of work; the unemployment rate in young males in February-March 2020, when the COVID-19 crisis first broke out, rose from 12,7% to 27,1% in Canada, from 8,5% to 24% in the USA and the unemployment rate in young females rose from 8% to 28,4% in Canada and from 7,5% to 29,8% in the USA. The labor force participation of young population in the same period dropped by 7,1% in Australia, 11,7% in Canada, 1,9% in South Korea and 7,5% in the USA. The working hours of young people in employment dropped by 23% with their incomes also dropping by up to 40%. The unemployment rate of young people below the age of 20 in Australia rose by 18,5% (ILO, 2020a).

The unemployment could be expected to rise depending on how long the crisis lasts; and a long-lasting crisis may lead to a recession and decline in labor force participation of the general population. The reasons for a potential recession and decline in the world economies in the period ahead could include people giving up looking for jobs due to extended period of unemployment (discouraged worker hypothesis), decline in the number of female and non-working-age (retired) workers and the potential impact of government policies within this context. Another significant effect of the crisis, in addition to numerical decline in employment and the increase in unemployment, is the negative impact on employment conditions, especially with respect to individual workers and households. Some of the expected outcomes within this context include a drop in wages, reduction in working hours, weakening of job and income security as well as rights to association and collective bargaining and widespread practice of unregistered, temporary/flexible employment.

Looking at the observable effects of the crisis so far, we can assert that, despite the constriction in employment and the rise in overall unemployment in many sectors, some may show a contrary trend. Examples of such professions and sectors include healthcare, communication-information, supply chain and distribution.

Economic and Social Measures

In countries negatively affected by the crisis, including Turkey, a number of healthcare, financial, monetary and social policies and measures have been put into practice in order to mitigate the negative effects of the pandemic on economy, working life, businesses, households, employees and the society as well as to protect businesses, employment, employees and their incomes and finally to establish communication and coordination between social stakeholders (ILO, 2020b). In the present context of Turkey, in line with the Economic Stability Shield Package announced after the COVID-19 Response Coordination Meeting held on 18 March 2020 and the policy decisions that

followed (IMF, 2020), a number of very significant measures -some of which are listed below- amounting in total to 252 billion Turkish Liras (5% of GDP) were put into effect by the Presidential Cabinet, the Ministry of Health, the Ministry of Treasury and Finance, the Ministry of Family, Labor and Social Services and the Ministry of Commerce as well as institutions such as the Central Bank of Turkey, Turkey Wealth Fund, Public Banks etc. (Işık Erol, 2020: 222-224):

- *A total additional fund of 2 billion Turkish Liras (300 billion American dollars) was allocated for the provision of financial aids to families in need and a financial aid of 1000 Turkish liras was given to 2 million households of Turkish citizens,*
- *The minimum retirement pension was raised to 1500 Turkish liras and the bonuses for the religious holiday, Eid, were paid early in the beginning of April*
- *Withholding and VAT deductions of business in certain sectors as well as their social security employer premium payments for April, May and June were deferred,*
- *Minimum of a 3-month deferral for the capital and interest amounts of the banks loans of businesses whose cash flows were broken due to the pandemic and the measures along with additional funding support.*
- *The funding support offered to the Credit Guarantee Fund was increased from 25 billion to 50 billion Turkish Liras in order to support the corporations and SMEs (Small and Medium Sized Enterprises) that had liquidity needs and margin deficits due to the negative impacts of the crisis,*
- *Hospitals were paid a daily amount of 660 Turkish Liras for each patient diagnosed with COVID-19 as per Communiqué on Healthcare Practices ("SUT") and the new COVID-19 measures,*
- *Layoffs were banned for a certain period of time (three months),*
- *The minimum wage support first introduced in 2016 was extended for 2020,*
- *Utilization of the short-time working allowance was facilitated and sped up to provide income support for workers in times of slowdown or suspension of work due to the emergence of a general, sectoral or regional crises or other force majeure and the duration of this allowance was extended,*
- *The practice of "compensatory work" that aims to compensate the reduction or suspension of work due to force majeure (maximum three hours a day) was extended from 2 months to 4 months.*
- *Measures of occupational health and safety were improved,*
- *"Open and distance teaching" was adopted in all levels of education, and flexitime and teleworking models were promoted in working life.*

Impact of Crisis on Employment Conditions and Working Methods Arrangements

Employment Conditions

In addition to its effects that cause "constriction of employment (reducing the number of active workers/participants in the economic activity) and increase unemployment", as discussed before, it also affects the employment (work) conditions as well as working systems and methods.

It is an normally expected that the sectors and businesses of goods and services with "high elasticity of demand" and those with relatively "weak labor force" will be most negatively affected (incur loss of work and income) by the recession and constriction. The crisis in question can be said to affect the distribution of those participating in the labor force and employment by sectors (agriculture, industry, service) and statuses (paid, freelancer, employer, family business worker) and their employment conditions at varying degrees. Indeed, it can be said that, in the course of a few months with the crisis, the effect of recession and constriction on sectors, lines of business and statuses appear to have varied. While work almost completely halted in some lines of business and enterprises, albeit for a certain period of time, efforts were made to maintain economic activities in some lines of business and workplaces by taking necessary measures via traditional working systems or implementing certain *flexible or atypical work arrangements*, notably *remote work/teleworking*. Based on the experience and estimations on this issue (Şeker et al., 2020), it can be said that the "service" industry, followed by the industry sector and, by job status, paid employees/workers and self-employed freelancers will be most negatively affected by the crisis.

It is also estimated that the paid (dependent) worker group, which make up the biggest portion of the labor force and employment, will be more negatively affected with regard to working conditions including wages, job and income security, rights to association and collective bargaining and other social benefits.

Another prediction is that the crisis process will have more negative effects on young and female labor force for the following reasons:

- The young population's standing in labor markets is weak and problematic even in good periods. Their unemployment rates are higher; while the increase in adult unemployment is 1%, the unemployment of the young population increased by 2,1%. Three quarters of young people work in unregistered (informal) jobs vulnerable to unemployment and income loss and lacking social security and benefits. While the rate of young people working in temporary jobs in the European Union is 50%, it is 12,5% in adults. The rate of young population who are not in employment or in education is 20%, which corresponds to 267 million people.

- Young people make up the larger part of the population seeking employment for the first time. Young people have little or no work experience and discharging them is easier and less costly.
- In comparison to the countries with more effective laws protecting workers, the employment in young people increases more easily in countries with weaker regulations.
- Not many vacancies have been filled since the start of the pandemic. The number of vacancies in England has dropped by 24,8% in 2020.
- The crisis accompanied by unemployment is also negatively affecting the mental health of the young population. In one study, 53% of young males and 60% of young females state that they experience emotions of uncertainty and fear for their careers with 50% stating that they have anxiety and depression.
- Interruption of educational and professional learning activities is also considered to be a problem that will negatively affect young people's employment opportunities and reduce their income (ILO, 2020a).
- *The negative impact of crisis on the young population is expected to multiply due to loss of jobs and income as a result of (1) interruptions in education, teaching and vocational learning activities; (2) increased challenge for young population new in the markets to find work and (3) decline in the quality of employed population*. In this context, comprehensive and purposeful policies and solution ought to be developed in order to revive the economy and employment, support businesses, employment and revenues, protect young population and improve social dialogue (ILO, 2020b, Balcı,2020).

Working Systems/Methods Arrangements

Working systems or methods refer to the arrangement of economic activity in terms of the time, duration and location of work or the functions and duties of workers[2].[3]. Working methods/systems can be grouped in two as (1) Non-flexible (traditional), (2) Flexible systems.

It is generally observed that the global pandemic of COVID-19 has affected the way working methods are implemented and, especially led to a significant increase in the popularity of the teleworking system. The observed and potential effects of the crisis on work arrangements are discussed below.

Traditional Working System

Traditional (typical) working systems involve all or most of the workers -with exceptions- working on a full-time basis at designated working days and for designated periods of time, out of home/at designated workplaces doing permanent tasks. With these particular features, the traditional system is the dominant working system that is "non-flexible" in terms of duration-time and

[3] Indeed, in the literature written in English, the term "*work arrangements*" is used to describe this concept.

location of work as well as the functions (duties) of workers and that has been implemented for a long time.

In the COVID-19 pandemic process, especially with the health measures that have been put into practice, there has been a serious decline in the adoption of traditional working system. However, it is observed that the traditional working system is re-introduced in many sectors and enterprises due to the loosening of health restrictions.

Flexible Working Systems Arrangements

"Flexible working systems", also referred to as "alternative" or "atypical" involve the arrangement and implementing of employment or work in a "varied" manner in terms of the time, duration of work as well as the functions/duties of the workers. These concepts are discussed in detail in many sources on human resources management (Acar, 1992; Dessler & Varrkey, 2005; De-Cenzo et al., 2016; Kaya & Burtan Doğan, 2016).

These working systems defined as flexible or atypical are gradually becoming more widespread depending on the economic, social and technological changes. The factors that led to the emergence and adoption of the flexible working systems include;

- Development of information and communications systems,
- Increased competition causing the labor costs to fall,
- Increased importance of ensuring family-work balance for female workers in particular,
- Traffic density in big cities that lead to loss of time and power consumption, increased demands for reducing environmental pollution as well as the effect of legal regulations on the employment of disadvantaged workers.

Despite the gradual increase in the adoption of flexible working systems for the above reasons, traditional system(s) are still dominant. In addition, with the implementation of health measures taken in the course of the COVID-19 crisis, many sectors where work had been carried out under traditional working systems have largely adopted the teleworking system. Also, there has been an increase in the adoption and popularity of some other flexible working systems. These developments led to the question of whether the teleworking and other flexible working methods will still be popular after the pandemic.

Teleworking

The biggest impact of crisis on working conditions is that the practice of teleworking has significantly increased in Turkey in terms of scope and scale.

Teleworking is a flexible working method, model or arrangement that involves workers performing their work outside the office and commonly at home, generally though communication established on a computer, telephone and internet within a flexibility of time and space for the whole or a part of their working hours (Dessler & Varrkey, 2003). This system, also referred to as home working, is a working method which is gradually becoming more widespread in sales and service industries in particular, while at the same time creating unique situations and even problems for workers and managers alike.

Despite its popularity, teleworking lacks an official definition commonly agreed by all parties and could therefore be defined and implemented in different ways. While work is defined by where and with which tools it is performed, this system can be implemented by arrangements according to location (traditional office, home etc.), the use of information and communication technologies and the tool as well as the intensity of information and intra-organizational and extra-organizational contact.

Teleworkers are defined as laborers that perform their work -either entirely or a small or large part of it- out of the workplace, at home or on the move with little or extensive use of information and communication technologies. These are *peripheral workers/employees* whose work status are commonly referred to as temporary or contract worker. Working conditions of the laborers employed in this category (job security, unionization, rights to collective bargaining and some other social benefits) are worse than those of the core employees employed in the traditional system and they tend to be getting even worse.

Despite its advantages, teleworking has some disadvantages not only for employers and workers but for the society as well. Teleworking offers benefits, for the employers that include, reducing labor costs, convenience to flexible production of goods and services, reduction of the loss of work time (shift), reduction of costs and expenses of the workplace, positive effect on the job satisfaction and performance of workers, convenience to project-performance and result-oriented work and pricing and reduction of transportation costs and absence. It is also found to be advantageous *for the employees* as it allows for more autonomous and flexible work, it is convenient for balancing and harmonizing family with work duties, allows work even in cases of disability and illness, saves time, power and expenses for transportation and positively affects job satisfaction and physical health. It is also reported that teleworking provides social advantages such as increasing stability and encouraging entrepreneurship, reducing traffic density, power consumption and air pollution.

However, teleworking may raise certain problems for businesses including increased cost of recruitment and training as well as issues of management and auditing, health and safety and a weakening in commitment and the sense of belonging to the work and the company. The negative effects on the part of

workers may include the lack of access to professional learning and promotion opportunities, conflict between the roles at work and at home, weakened commitment to work and the company, social isolation, relatively lower job security and worsened/unsuitable work conditions. Other issues raised by teleworking include an increase in informality, tax loss and social expenditure, difficulties in regulation and inspection and other inconveniences regarding concerns of social order and healthcare.

Partially implemented prior to COVID-19 crisis mostly in certain managerial and professional work, "teleworking" has now been adopted by a larger community for a wider array of different tasks on different levels. The most striking example of this is that, in all levels of formal education including universities, the education and teaching is now provided in the form of "open and distance teaching". In addition to schools and universities, many public and private organizations also largely adopted "teleworking" method for "service work" in particular. However, in parallel with the loosening of measures, there has been a return to the traditional system.

Job Sharing

Job sharing is a system where the workload of a single worker is equally distributed to two or more workers and completed by taking turns. In a typical single-shift system that requires full-time work, dividing work to be done by one person for the first half of the day and by another person for the second half is an example to the implementation of this system. Job sharing can also be implemented by distributing daily, weekly or monthly full time work to a group of employees (divided day, divided week, weekly rotation). This is a method that can be used to prevent and reduce the layoffs and the increase in unemployment especially in times of high unemployment. *In the event that the crisis persists, it could be expected that job sharing will become more widespread as a practice promoted by the government in order to reduce open unemployment.*

Part-Time Work

Part-time work is an arrangement involving work for shorter periods of time than the normal working hours (weekly or daily) as agreed between the worker and the employer. Part-time work is an arrangement of work for shortened durations. This duration varies by country. Part-time work is permanent and this is how it differs from short-time work (Kaya & Burtan Doğan, 2016: 1079). While temporary reduction of work hours was implemented in many enterprises due to the crisis, we lack sufficient data or information on whether there has been a change in the number of part-time workers.

Flexitime

Flexitime is a work arrangement in which allows workers to determine what time they start and finish work and have lunch breaks in addition to one or two fixed time periods when they are expected to be working. It can be said that this system is more frequently implemented in office and sales-related work as

well as managerial work in comparison to blue collar work. Flexitime system is more applicable to work that is performed in the office within professional and managerial contexts and not to production (factory) work with high levels of interdependence. Increased flexibility can be said to produce equal degrees of advantages and inconveniences. The way the system is implemented and managed is of high significance: It is advised that a manager be appointed and the system be implemented within a pilot department (Dessler & Varkkey, 2005). *If the crisis persists, an increase can be expected in the practice of this system in order to reduce the increased social density and contact at rush hours as well as the duration of density and contact in the workplace.*

Flexible-shift Work

Commonly preferred as a result of the failure to fit the daily tasks in a day's shift for technical, economic and legal reasons, "shift work" involves the performance of the daily work by dividing the shift into two or three a day.

Traditionally, decisions regarding the shift work are left, wholly or mostly, to the employer. "Flexible shift", as a term more frequently used recently, is a working system that involves providing the employers with more autonomy and preferential right as regards the shift arrangements. Based on this system, workers are allowed to make changes to the shifts according to their needs and demands.

Compressed/Short Work Week

Compressed work week is a work arrangement where the required weekly working hours are compressed into fewer number of days (i.e. 40 hours of work required for a week is compressed into four days with 10 working hours a day). This system has long been implemented in airline transport industry for pilots and airline worker as well as for physicians and other healthcare workers in the healthcare industry. It is widely accepted that this system will positively affect the worker satisfaction and, to a degree, the loss of work time although, due to extended working hours, it will lead to fatigue-related problems. In the event that the crisis persists and curfew and other restrictions are implemented on certain days of the week, this system can be expected to become more widespread.

On-call Work

On-call work is a work arrangement that involves workers working for pre-designated/required periods of time upon a call made beforehand. This arrangement can be implemented in different ways. The worker can work for minimum periods of time as designated by laws or agreed upon by the parties. Another option is that the work time is stated on each call. In some cases, the work time can be determined by the employer according to the needs. In general, the relevant regulation and agreements set out the rules on when the calls can be made as well as the minimum and maximum work time and the minimum payment to be made even if the work is not performed. It can be

said that there is a growing trend towards implementing this method, albeit not systematically, in many enterprises and this could continue if the crisis persists.

Fixed Term/Temporary Work

As is known, the working relationship between the worker and the employee is essentially classified into two categories: fixed-term and permanent. In fixed-term work or employment, the starting and end dates (duration) of the relationship is established beforehand while permanent work refers to a determined start date but no end date. Commonly referred to as "regular" workers, workers employed on full-time basis under permanent contracts are generally considered to be *core (primary) employees* of the enterprise. Wages, job and income securities of these employees as well as their rights to association and collective bargaining along with other working conditions are more acceptable than those employees working under temporary or flexible arrangements. With the widespread adoption of flexible work, there has been an increase in the number and ratio of fixed-term/temporary workers. These workers are in a much weaker position in terms of wages, job and income security, rights to association and other working conditions; therefore, they are referred to as "peripheral employees". With the ever more frequent economic fluctuations and increased competition in recent years, the number and ratio of fixed-term employees are on an upward trend -especially in the young population- in connection with the increased importance of reducing costs. The COVID-19 global crisis can be expected to create an impact that will speed up the popularization of this "temporary work" methods.

Evaluation and Conclusion

Having emerged in the late 2019 in China and turned "global" by spreading to other countries, including Turkey, since the beginning of 2020, the COVID-19 pandemic has caused a global crisis named after itself. Referred to as the "COVID-19 crisis", this crisis differs from other crises in history in many ways as it is a combination of a global health crisis and a socioeconomic crisis, affecting the lives of societies in multiple aspects. The socioeconomic crisis arising from this global pandemic has been the result of health measures taken within the context of managing the health crisis.

Triggered by the health crisis, this socioeconomic crisis caused significant loss of jobs and income as well as recession and constriction in economies and acceleration of the downward trend in employment and the upward trend in unemployment. The biggest impact observed in terms of working systems or methods has been the decline in the implementation of traditional working systems due to the health measures in particular and the widespread implementation of some flexible working systems, notably teleworking.

At this point in time, which some people refer to as the "new era" and the general impression is that "nothing will ever be the same again", the popular

discussion is the impact of the crisis on *(i) employment and unemployment rates and (ii) working methods and whether this impact will be permanent*; in other words, whether the crisis will result in a transformation in these areas (as well).

It must be stated that the impact of this crisis, namely the constriction in employment, inconveniencing the working conditions, increasing unemployment and altering working methods will persist, albeit at varying degrees depending on the level and extent of the health crisis and the implementation of measures -until the pandemic is permanently resolved or herd immunity is finally achieved. However, it can further be asserted that the health measures will be loosened depending on whether the health measures prove effective, which will eventually mitigate the negative socioeconomic effects of the crisis with the help economic and social policy measures. In addition, considering the impact of the economic crisis of 2008-2009, it is estimated that the negative impact on the employment rate and work conditions as well as unemployment will persist after the crisis, also that the issues of unemployment and work conditions that concern the young population which, having existed for a long time, has now become even deeper will require more effort and time to solve.

Similarly, the crisis can be expected to have the following effects on teleworking and other working systems/methods;

- *It may continue in parallel with the duration and level of the health crisis and measures, albeit following a downward trend, until the pandemic ends,*
- *However, as distinct from employment and unemployment rates, these effects in particular, may vary depending on the conditions and measures that require teleworking/flexible working,*
- *For as long as the crisis lasts, there may be an increase in the practice of flexible work arrangements including teleworking, job sharing, short-time work/ reduced time work, compressed work week, temporary work,*
- *As a result of the sensitivity toward and dependence on the measures, after the pandemic ends, there may be a return to the working systems that had been implemented before the pandemic,*
- *In addition, with the impact of the experience of teleworking and other flexible working methods as required by the crisis on the way the attitudes and policies of social stakeholders (employees-employers-state) change or the continued impact of the economic return -which is expected to continue even longer- (and of the relevant government policies) on employment and unemployment, there may be a growing trend in the implementation of flexible working systems (especially in the form of traditional/flexible/mixed arrangements) speeding up their widespread adoption,*
- *However, it could be said the possibility of these impacts on working systems (such as teleworking becoming almost as popular as the traditional working system) leading to a fundamental and permanent change or transformation is low.*

In addition to these, it is also claimed that this crisis will also worsen the working conditions of a significant part of the labor force -of the young population in particular- (wages, job and income security and other rights and benefits) and the solution of this problem will take much longer. The "psychosocial" effects of the crisis on the society, labor force, family and individuals, which are not topical at present, and the negative effects on other areas (weakening of social relations and bonds, increase in psychosocial-psychosomatic disorders, public order and safety, data security, quality of education-teaching etc.) ought to be examined in detail. The common view is that it is important to implement the policies to be developed in participation and collaboration of social parties and relevant stakeholders for the solution short-, medium- and long-term problems concerning the society, economy and the work life.

References

Acar, A. C. (1992). Alternatif çalışma düzenleri. İstanbul Üniversitesi, *İşletme Fakültesi Dergisi, 21(*1-2), 69-82.

Balcı, Y. (2020). Covid-19'un Türkiye ekonomisi ve istihdama etkisi. *Yeni Şafak*. Retrieved from: https://www.yenisafak.com/hayat/covid-19un-turkiye-ekonomisi-ve-istihdama-etkisi-3543753 (09.06.2020)

DeCenzo, D. A., Robbins, S. P., & Verhulst, S. L. (2016). Fundamentals of human resource management. John Wiley & Sons.

Dessler, G., & Varrkey, B. (2005). *Human Resource Management, 15e*. Pearson Education India.

International Labour Organization – ILO. (2020a). *Preventing exclusion from the labour market: Tackling the COVID-19 youth employment crisis*. Retrieved from: https://www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_746031.pdf (10.06.2020)

International Labour Organization – ILO. (2020b). COVID-19 and the world of work. *Country policy responses*. Retrieved from: https://www.ilo.org/global/topics/coronavirus/country-responses/lang--en/index.htm (14.06.2020)

International Monetary Fund. (2020). *Policy Responses to COVID-19*. Retrieved from: https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19?utm_medium=email&utm_source=govdelivery#T (10.06.2020)

Işık Erol, S. (2020). COVID-19'un Çalışma Hayatına Yansımaları: Salgından Etkilenen Bazı Ülkeler Tarafından alınan Önlemler. *Dicle Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 10*(19), 212-231.

Kaya, M., & Burtan Doğan, B. (2016). Esnek Çalışma Modeli: Ev Eksenli Çalışma. *Elektronik Sosyal Bilimler Dergisi, 15*(58), 1069-1099

Özgüç, B. (2020). Kriz yönetimi nedir? *Mediaclick*. Retrieved from: https://www.mediaclick.com.tr/blog/kriz-yonetimi-nedir (14.06.2020)

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). *COVID-19 Küresel Salgın Değerlendirme Raporu.* Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34. Retrieved from: http://www.tuba.gov.tr/files/images/2020/kovidraporu/T%C3%9CBA%20Covid-19%20Raporu%206.%20G%C3%BCncelleme.pdf (14.06.2020)

Tatlıyer, M. (2020). Odak: Koronavirüs Sonrası Dünyada İstihdam ve İşsizlik. *SETA*. Retrieved from: https://www.setav.org/odak-koronavirus-sonrasi-dunyada-istihdam-ve-issizlik/ (10.06.2020)

T.C. Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı – SBB (2020). *İstihdam*. Retrieved from: http://www.sbb.gov.tr/istihdam/#:~:text=%C4%B0stihdam%20oran%C4%B1%2C%20

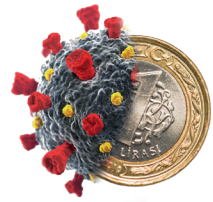
y%C3%BCzde%2044%2C3,d%C3%B6neminde%20y%C3%BCzde%2012%2C7%20oldu (14.06.2020)

T.C. Sağlık Bakanlığı. (2020a). Retrieved from: https://covid19bilgi.saglik.gov.tr/tr/ (10.06.2020)

T.C. Sağlık Bakanlığı. (2020a). Retrieved from: https://covid19.saglik.gov.tr/ (21.06.2020)

World Health Organization – WHO. (2020). *WHO Coronavirus Disease (COVID-19) Dashboard:* Retrieved from: https://covid19.who.int/?gclid=EAIaIQobChMIpIjD4cyC6gIVh8wYCh1eMgr8EAAYASAAEgKx2_D_BwE (21.06.2020)

World Trade Organization – WTO (2020). *Trade set to plunge as COVID-19 pandemic upends global economy*. Retrieved from: https://www.wto.org/english/news_e/pres20_e/pr855_e.htm (09.06.2020)



Transformation in Consumption and Spending Practices in the Post-pandemic Period

Bayram Zafer Erdoğan

Prof. Bayram Zafer Erdoğan

Prof. Erdogan currently works as a Professor at Anadolu University, Faculty of Business Administration. Since 2015, he is an Associate Member of the Turkish Academy of Sciences (TÜBA) and he serves at the Advisory Board SOBAG TUBITAK. He is also the Country Director of the EuroMed Research Business Institute and the President of the Marketing and Marketing Research Association. His research focuses on marketing theory and strategies; society and marketing; digital marketing; innovation, and marketing communications. He has served as a director, researcher and consultant in many national and international projects of public, private and non-governmental organizations.

Transformation in Consumption and Spending Practices in the Post-pandemic Period[1]

Bayram Zafer Erdoğan
Anadolu University
bzerdogan@anadolu.edu.tr

Abstract
In addition to the health problems caused by the coronavirus pandemic, the business processes of all small-medium-large enterprises and institutions in the global economy and certainly the lives of people/consumers have also deeply changed. We are going through a period during which many things that were not in our daily life in the past will be a part of a "new normal" life. Therefore, in order to understand changing consumers and their behaviours, it is necessary to benefit from the marketing discipline, which deals with the facts and perceptions that play a role in shaping people's realities. The new normal will have short, medium, and long-term effects on consumer behaviour. In this study, the new behaviour patterns of consumers and businesses affected by the pandemic and their reflections in "the new normal" have been evaluated. In particular, consumption and spending patterns of consumers in the current market conditions, and whether the new normal indicates a revolutionary transformation for the actors in the market have been discussed. In addition, it has also been discussed how the consumption practices are shaped within the socioeconomic status groups with a particular reflection on consumption and spending practices in the context of consumer, business and legislators; and some predictions, estimates and inferences based on all these discussions have been revealed.

Keywords
New Normal, Coronavirus, Pandemic, Consumption Practices, Market Actors

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Situations appearing abruptly, unexpectedly and unpredictably are called crisis (Sezgin, 2003) and it is possible to range the reason of these crises from natural disasters and political issues to economical and administrative causes. In this respect, it is of much importance in terms of crisis management both to define the COVID-19 as a natural disaster crisis which has been described as a pandemic by World Health Organisation and to make sense of the reflexes of parties (individuals and institutions) during the crisis period. Throughout history, disasters (earthquake, flood, pandemic, etc.) have affected the life of societies in many aspects, caused breakups and been experienced as the triggers of a crisis period. Among these disasters, pandemics have perhaps the biggest effect on health, national security, economy and therefore consumption of societies (Qui et al, 2017). Humanity fought against such crises caused by pandemics in the last century as Spanish Flu, Swine Influenza, Avian Influenza, SARS, and Foot and Mouth Disease (FMD) (www.euro.who.int). It is an undeniable fact that while the cause of outbreaks and geographical domains vary, these pandemics have permanent and extensive effects on almost every aspect of societal life.

The year of 2020 has witnessed a breakup in the world caused by Coronavirus. Called Coronavirus crisis, this breakup has brought along the questions below:

- *How will the Coronavirus crisis affect the consumption expenditures of daily life?*
- *Within the period during which we try to make sense of extensive digital transformation efforts and existing spending practices, will the breakup caused by the Coronavirus crisis accelerate the digital transformation exercises or completely change current spending practices?*
- *What kind of a change is anticipated after Coronavirus crisis in the short, medium and long term?*

This study will evaluate the new and adopted behavioural patterns of consumers and businesses within the period affected by the Coronavirus crisis and the reflections of these patterns on the new societal life called 'new normal'. Besides, the consumption and spending patterns of consumers will be discussed within the current market conditions while it will be identified whether these patterns indicate a revolutionary transformation for the actors in the market within the 'new normal' era. When it is considered that the pandemic is still ongoing throughout the world and that each of us is affected and experienced this reality from the very first hand, it is of importance to emphasize that the evaluations to be made are only educated guess stemming from limited information.

Pandemics and Their Effects

As witnessed from earlier experiences, the major pandemics caused such structural, economic, social and political changes and transformations within the era they affected as population movements between rural and urban areas, use of time, efficiency issues in production and manufacturing, fluctuations in agricultural production, massive famines and poverty, and changes in religious and spiritual values (TÜBA, 2020).

The relationship between globalisation in the macro level and health has become of much significance. A virus breaking out in China has come to the fore of the world by spreading in a massive pace and caused all countries to face with the same but very serious problem. In its recent report overshadowed by the ongoing effects of the pandemic containing macroeconomic indicators such as the projected growth rate of countries, unemployment rate, and consumer prices, the International Monetary Fund (IMF) envisages 3% shrink in the global economy covering developed and developing countries, which is the worst recession since the Great Depression (IMF, 2020). This change, which is and will be felt in the macro level, will inevitably manifest itself in the micro level, more precisely in the consumption patterns of consumers since consumption is a complex phenomenon having economic, psychological, societal, and cultural aspects (Uiterkamp and Schoot, 2007).

The internet searches made by digitalised, modern consumers of today's world during pandemic period through Google with the aim of obtaining the most up-to-date official rules and regulations, accessing financial supports, finding the correct and suitable platforms for online education, protecting physical and mental health, and discovering new methods and leisure for spending time at home (Sinclair and Tolay, 2020) actually confirms this complexity. As understood from this summary of searches, consumption, already a complicated and multi-dimensional phenomenon, has become a more and more stratified issue. For instance, consumers, stimulated by limited access[2], have started to stockpile very different kinds of goods and products during the lockdown imposed within the fight against the pandemic throughout the world.

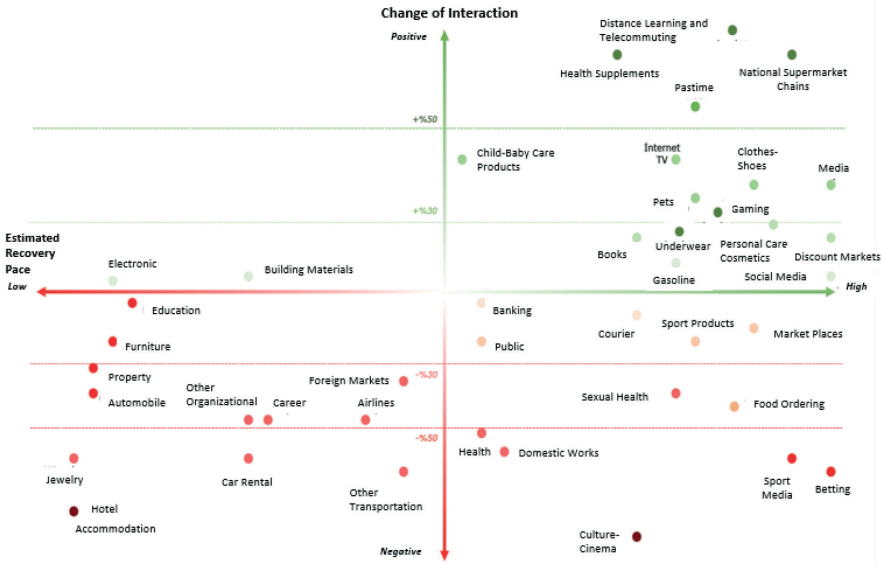
[2] Strong stimulation felt by individuals to purchase offers rapidly decreasing in number or whose purchasing gap is gradually closing (Varnalı, 2020).

The Coronavirus crisis has, in a short span of time, transformed into a survival challenge of both humanity and society. People have radically started to be scared of death or live with this fear of death and this collective conscience, along with some restrictions imposed by the governments, has caused fundamental changes in consumption and spending practices. The recent effects of this transformation on economy could be summarised as follows (Baldwin and Weder di Mauro, 2020): Problems related with the delivery of the goods have arisen within the international supply-chain due to a "Chinese shock" resulting in the interruption of production and manufacturing and particularly electronic, pharmaceutical and logistics industries have had serious difficulties. Afterwards, transportation sector has had some interruptions owing to the slowing-down of tourist mobilities and both of these sectors have nearly ceased all their activities. With the purpose of effectively managing health services, the governments have had to impose such measures as lockdowns. Within these measures, all the such places and venues that people go in crowds as restaurants, cinemas, theatres, and gyms has been closed for a while.
The fact that the economies have suffered due to an unexpected breakup has caused a massive uncertainty and gloom among consumers. While this uncertainty has disinclined insecure and nervous consumers from spending, the economic data has started to deteriorate along with descending demand (Chen et al., 2020). This situation has resulted in consumption deceleration and consumption expenditures which only spent on basic necessities. The fact that similar issues and restrictions have been experienced and imposed in Turkey requires the same questions to be asked specifically for Turkey.

Some research companies have started to evaluate the change in product sales in order to reveal the extent of change in consumption and spending practices. According to the research conducted by Deloitte (2020), sectors that are severely affected by the pandemic are cinema-culture, activity and entertainment, transportation, and hotel-accommodation services. On the contrary, such sectors, services and products as distance learning and telecommuting, health supplements, national supermarket chains, pastime products, and Internet TV have all experienced massive increase in demands. Figure 1 indicates which product groups have been affected most by the Coronavirus period.

Another research carried out by IAB TR (2020) indicates that according to the statements of data operators, internet usage has increased by 50% during daytime hours while there is an extra 30% load on usage during peak hours. This is a clear evidence of increasing digital consumption. According to the same research, it has been concluded that the interest for web sites containing content on tourism has decreased by 48% while there has been a surge in web sites broadcasting news and information on the pandemic.

Figure 1. Interaction changes and approximate recovery paces of analysed categories in Turkey after COVID-19



In order to better analyse the effects of the pandemic, it is of significance to make a comparison between the situation in Turkey and the results of similar studies carried out in other countries. In their study examining the consumption data of American households during the pandemic, Baker et al. (2020) have identified that families with children and female consumers have more tendency for stockpiling. The same study has analysed the spending patterns in terms of political orientation and concluded that demand for some product categories has differentiated due to the risk perception and differences in beliefs resulting from different political orientations. Similarly, it has been observed that there is an increase in the tendency to opt for online retail services instead of shopping physically in order to maintain social distancing. According to the data provided by Statista (Clement, 2020), 9% of consumers in the United States have indicated that this is first time they have done online shopping due to such reasons as social distancing and individual quarantining. This figure has risen to 27% in Turkey (McKinsey, 2020). Along with widespread digital practices resulting from social distancing and due to the negative effects of the pandemic on daily and working life, general economic activities have experienced a decrease and consumers have started to develop a propensity to save due to increasing uncertainty and gloom.

On the other hand, consumers, who have started to think more logically due to the pandemic crisis, have been anticipated to develop such behaviours as anti-consumerism or degrowth-activism against "the wrong and unsustainable needs" and supplies for these needs created by capitalism which is the prevalent global economic system. Within this context, during the new normal

era, a mass of new post-consumers will come into the picture who is concerned about the harm given to themselves, society and the nature caused by the time and effort they spend for consuming and who will adjust their consuming patterns with the goal of simplifying their lives (Mediacat, 2020). Therefore, it is expected from socially responsible brands to guide consumers' preferences during this period. According to a recent study (Sweeney, 2018), it has been identified that most of the consumers think some brands are much stronger than governments in solving social problems.

In a recent report released by GfK (2020), one of largest market research organisations, on shopping behaviours during the time of crises, the reactions of consumers during pandemic have been divided into three stages as panic, adaptation/orientation, and new normal. According to these indications, consumers have the fear of missing out, have the tendency to opt for compulsory and preventive measures and decide to halt and/or postpone some of their consumption preferences during the times of panic. During the adaptation stage, consumers assume a planner profile through which they revert to type both spiritually and physically along with starting to live at home, begin to delight in joy of missing out, renew their awareness about freedom of choice, become loyal for products, goods and providers which they want to survive, create new routines for their own and their family to reduce the stress they are exposed to, and start to make budget planning as the recession scenarios becomes more and more prevalent. As for the new normal era, a new type of consumer will emerge who will focus on economically surviving rather than just surviving, prioritise short term needs, is going to be in a fix among discussions on societal reforms related to digital gap, environmental concerns, data privacy; make more national and local scale decisions, has strengthened his/her consumerism performance, and has focused on improving himself/herself in every field after the pandemic.

In the following pages, the reactions of these type of consumers during the pandemic have been evaluated in terms of marketing and specific to individuals, businesses, and law-makers as decision-makers while short and medium term provisions have been provided for the new normal era.

Comprehending consumer behaviour in terms of marketing during the pandemic

Analysing the consumption and the nature of it through individual and organisational levels, marketing is identified as an applied and synthesised social science by many although there has not been a consensus yet due to its scientific status (Erdoğan, 2009). The synthesised feature of the marketing science comes from the fact that it interprets the consumption phenomenon by the help of other fundamental social sciences (sociology, economics, and psychology) while the fact that it carries out this interpretation through consumption practices gives the marketing science the applied science feature. The consumption patterns of individuals are subject to many psychometric measurements as learning, attitude, motivation, etc. and such societal references as social stratums, statues, roles, cultures and sub-cultures are taken

into consideration within these measurements. While identifying consumption motivations, instead of economic man typology focused on rationality and maximisation of satisfaction, the marketing discipline analyses consumers from the point of marketing man typology that handles the decisiveness of socio-psychologic factors and the typology of economic man together (Levy, 1959; Bagozzi, 1975). The same intellection is valid for the marketing science, a synthesised branch of social sciences analysing behaviours not at the level of principles but at the level of exceptions, in which economic man and marketing man constitute the two edges of the normal distribution curve. Within this regard, the average consumption pattern is evaluated through the assumption that individuals do not take care of such socio-psychologic factors as brand images and social messages conveyed via product ownership while making purchasing decisions as in the case that they do not look for functionality for the products subject to only utility maximisation.

Baker has formulated the relationship between marketing and other social sciences, the synthesised structure of marketing and the basic references of purchasing decisions of individuals as follows:

$$P=fS[SP(FN, EC, IS, CBA, BR)\ PPE]^{3}$$

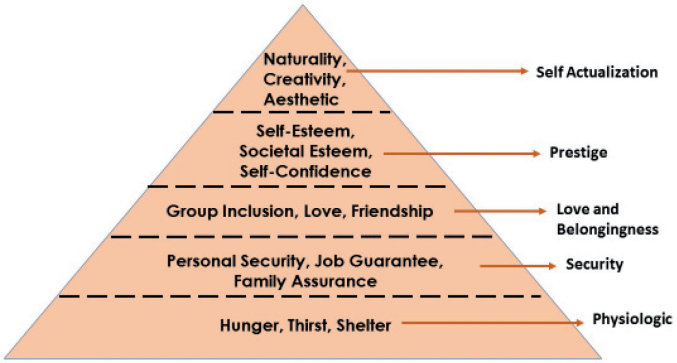
As understood from the formula, the purchasing decision is made by being impressed individual effects and environmental factors with reference to symbolic and utilitarian motivations to fulfil desires and meet needs. Being exposed to various stimuli, consumers reacts to them by being impressed by these factors. This exposure process that cannot be observed explicitly is called through 'black box' metaphor. The consumers could be affected by such psychological factors as learning, motivation, perception, attitude, and personality; socio-cultural factors as family, social class, culture, sub-culture, and group; demographic factors as age, gender, educational background, profession, and geographical location; and situational factors as time, setting, reason of purchasing, emotional state and financial condition (Odabaşı and Barış, 2010). As Baker has conceptualised, while the purchasing decision is the common product of both references (utilitarian and symbolic) at the two edges, it is inevitable that the weights of these references bear contingencies. Indeed, individuals are able to relatively minimise the symbolic justifications in extreme conditions as pandemics while they have the tendency to make purchases much through utilitarian motivations. We all have seen the manifestations of this fact during the pandemic. So much so that while the generation Z, the only representatives of hedonistic consumption, has the opportunity of fast-access to any product they need and the habit of consuming them in-a-lump, they have met the habit of stockpiling (Kişin, 2020a). The behavioural patterns of individuals having more tendency for utilitarian consumption have also undergone a change. Accordingly, consumers who were used to meet their needs by making a cost-benefit analysis and visiting several stores with

[3] P= Purchase; f=function (unspecified); S=stimulus or stimuli; SP=selective perception; FN=felt need (Awareness); EC=enabling conditions; IS=information search; (Interest); CBA=cost-benefit analysis (Desire); BR=behavioural response (Action); PPE=post-purchase evaluation.

a reference to price-performance analysis before the pandemic are now in a tendency to increase their per-cart expenses by shopping from only one store to meet their basic necessities with the aim of not being exposed to the virus (Kişin, 2020a).

This propensity experienced in utilitarian consumption pattern could also be explained through Abraham Maslow's 'Hierarchy of Needs' frequently used in administrative sciences and more specifically, in evaluating consumer behaviours. This hierarchy indicates that people satisfy their physical and social needs in a hierarchical way and the extent of satisfying a need in this hierarchy differentiate according to persons and conditions.

Figure 2. Maslow's hierarchy of needs



When the consumption patterns during the pandemic are analysed with regard to Hierarchy of Needs, it has been concluded that the consumption tendency have considerably shifted to meet the physiological needs regardless of societal classes and while social needs such as self-actualisation, prestige, love and belongingness have relatively left aside. Within the societal evaluations about consumption made during the pandemic, it has been pronounced that the pandemic has removed the class discrimination between the people and it has made everyone equal; however, when the hierarchical classification presented above is examined, it could be easily observed that the equalised thing is actually not the social classes but the needs. Indeed, no matter which societal class individuals belong to, the priority is absolutely given to physiological needs such as eating, drinking, and sheltering since humans are a biological being and the needs at the upper steps will lose their significance when the physiological needs are in any kind of danger. Besides, it is of higher possibility that some differentiations stemming from class differences in satisfying basic necessities could be observed. It is impossible to put the consumption tendencies of individuals from higher classes when meeting their physiological needs in the same pot with those of people from the lower classes.

There is a direct proportion between the transformation of this consumption tendency into the acquired behaviour and the duration of the crisis; however, should the crisis continue, it is a bit complicated task to predict the consumption tendencies of peopled during the new normal era due to the lack of limited studies related to this issue. On the other hand, the outbreak time of the pandemic, the preventive measures of governments and the public acclaim of these measures has differed with regard to cultural diversities. The cultural-dimensions theory (individualism-collectivism; masculinity-femininity, power distance, and uncertainty avoidance) taken into account while evaluating the differences between behavioural patterns and created by Hofstede (2001) having significant studies on cultural differences is among the most important references used to interpret the behaviour patterns during the pandemic. Even though behaviour patterns should be analysed in terms of individual level, persons from the same culture often and mostly have common behavioural patterns. When taken into consideration from this point of view, individuals from such Eastern countries as China, Singapore, and Korea, where the effects of collectivist structure are felt through strict rules, feminine tendency is more prevalent and perceived power-distance is dominant, have unexceptionally obeyed and complied with the measurements taken against the pandemic. On the other hand, there has been very serious difficulties in controlling the pandemic in Western countries as Italy, France, and Spain where individualistic and masculine tendencies are dominant features of the society and this issue has resulted in extremely serious problems.[4]

It has been observed that people in Turkey has mostly abode by the measures and guidance imposed by authorities by pursuing the interests and wellness of the society as well as those of themselves. While the societal reflexes against practices and measures have witnessed cultural differentiations, people have acted in a similar manner within the consumption practices in compliance with the 'uncertainty avoidance' dimension. As a matter of fact, studies carried out both in Turkey and other countries bear resemblances in terms of consumer behaviours. Within this context, it has been identified that as the uncertainty resulting from pandemic prolongs, the consumption trends have also increased (Deloitte, 2020).

In their study carried out in the USA, Nielsen and Suzy have found out that the consumption tendency has shifted towards food, personal care and household cleaning products and people have mostly focused on dry foods with the stimulation of stockpiling (Carufel, 2020; Nielsen, 2020b). As mentioned earlier, people in Turkey have had similar tendencies. When evaluating these behavioural patterns, it will be wrong to drift away from psychological references since the emotional effects caused by uncertainty and anxiety could be easily seen from behaviours. Recent studies have determined that individuals

[4] The perception of risk is another factor having a strong reference in cultural differentiation. In a collectivist society like China, individuals are expected to adapt the group dynamics and specified behavioural codes and taking any risk within this type of society is not approved since it will give harm to the interest and existence of the group (Tse, 1996). Quite the contrary, in a typical individualist country like USA, risk-taking is seen as a merit and is strongly recommended (Triandis, 1995). Complying with the measures or opposing them has been very clearly observed in the USA during the pandemic.

have different levels of anxiety stemming from the pandemic so much so that besides the physiological and biological dimensions, the pandemic causes another pandemic due to the anxiety it creates (London, 2020). The reason of this anxiety stems from the fact that the Coronavirus pandemic do not bear any similarities with any of the natural disasters humanity has experienced so far; it is very hard to control it and it is unclear when it will be wiped out as it is not known when it has broken out. Individuals try to find ways to put up with the uncertainty instead of controlling and making predictions about it (Carleton, 2012). In a study carried out after the H1N1 pandemic, it has been concluded that unsuccessful persons have more anxieties in fighting with uncertainty (Taha et al., 2013). In order to manage their emotional balance during COVID-19 pandemic, people have gone through a transition process during which they have tried to accept that this a true pandemic, assume the institutional regulations and measures, and adapt their emotional and behavioural reactions. All of these efforts have reflected upon their consumption practices and indeed, individuals feeling much of the severity of COVID-19 pandemic have started to make excessive spending (Kişin, 2020a). As their level of knowledge about the pandemic and its pace of spread have increased, both their consumption patterns and products they consume have been gradually adapted in line with the process. The effects of the pandemic were not so evident during the first weeks of March while sharp changes were observed starting from the third week of the same month (Deloitte, 2020).

According to the results of a recent research carried out in the USA by Suzy research company, consumers postpone high-budget product purchasing such as high-interactive services, house, automobile, vacation, and luxury products while their demand have substantially increased for especially foods and beverages at first hand and then for basic necessities as personal care products, household cleaners, non-prescription drugs. Besides they have showed great interest in purchasing alcoholic beverages, entertainment, beauty, and electronic products which will all enable them to feel good, in other words 'to preserve their mental health'. The situation is the same in Europe. The consumption practices evolved and transformed during the pandemic have almost the same features in France, one of the countries where the most number of cases and deaths are observed. So much so that 'pasta and toilet paper' has also become the symbol of consumption during the pandemic by topping the most-purchased products chart in Turkey as of other countries including the USA (Deloitte, 2020; Nielsen, 2020b, Puget, 2020, Ugolini, 2020).

Avoiding physical contact due to the measures and regulations to maintain social distancing, consumers have tended towards e-retail services and created significant demand in household fast moving consumer goods (basic necessities). However, the individual differentiations of this increase should be separately analysed. According to the Research on Household Usage of Information Technologies carried out by Turkish Statistical Institute, the access to the internet is not a problem anymore while it is possible to conclude that the digital gap between individuals still remains at the socio-demographic

origins. As a matter of fact, such social inequalities and exclusions as the educational status, employment status (unemployment), gender (the fact that women have relatively lower level of digital competencies), age, and physical disabilities (technical incompetency of the elderly and disabled and the fact that these people could not adequately benefit from the economic, cultural, social, and personal advantages brought along by this technologies) could widen this gap (Taşdemir and Fındık, 2017) and as a result could lead to inadequate digital literacy. The disadvantages stemming from these socio-demographic indicators have all been reflected upon the digital consumption patterns during the pandemic. The young already acclimatised to the digital era has not experienced any problems to use their digital competency within their consumption practices; however, having relatively lower level of digital integration, the elderly has had some serious problems in reflecting their limited digital competency to their consumption patterns that will facilitate their daily life (Nunan and Di Domenico, 2019).

Not to speak of the inequality created by digital literacy between the groups in terms of consumption, it has also been observed that Turkey, where media consumption has increased particularly during the pandemic (Deloitte, 2020), varies from other countries with regards to following frequency and media preference. While the rate of watching news in the world is 75%, this figure rises to 94% in Turkey. The most frequently used sources of news in the world is television news, social media and search motors, whereas these sources are television, social media, official accounts of the Minister of Health and official web-site of the Ministry of Health (Nielsen, 2020a)[5]. Concerning meeting the needs through one's own means which is a typical example in the literature related to consumers' participation to the creation of benefit, conceptualised as co-creation of value (Vargo and Lusch, 2004), the practices of Turkish citizens during the pandemic differentiate from that of citizens of other countries. Along with closing of such businesses where social interaction is at its highest as hairdressers, coiffeurs, restaurants, and cafés, people have had to meet their needs they used to satisfy from these places and have substantially shifted their demand into these categories. On the other hand, due to the increasing perception of risk during the pandemic, consumers have started to make even their basic needs at home as bread and therefore, there has been a considerable increase in the demand for devices to be used to satisfy these needs (www.milliyet.com.tr; www.hurriyet.com.tr).

Anticipations of new normal era and assumptions for practices

It would not be wrong to say that we are very competent in management of crises as individuals and institutions of the country which experienced many natural, political and economic crises in the past. However, due to fact that there has not been a similar disease since the beginning of the century as COVID-19, declared as a pandemic by the World Health Organisation, or Coronavirus, more common in Turkey, the world has undergone an unprecedented

[5] The research carried out by GlobalWebIndex in the USA and the UK on April 2020 on Coronavirus and Media Consumption has also pointed out similar consumption practices and distinctions between generations.

crisis period. While people have started to worry about the health of both their own and their beloved, they, on the other hand, have had to think the financial burdens and difficulties in the case of becoming unemployed due to the economic slowdown. Besides, according to the report released by Lancet (2020), COVID-19, unlike earlier pandemics, have affected the society both psychologically and physically. The uncertainties, naturally, have affected the consumption patterns of consumers and the way they spend their money. Even the individuals that won't be negatively affected thanks to their Socio-Economic Status (A-B) have changed their consumption habits and started stockpiling basic necessities owing to fact that the social and traditional media contains the content related to the pandemic. The fact that people use social media as a source of information and that the information/rumours within these platforms spread fast has caused to emerge such emotional disorders as psychological stress, depression, anxiety, boredom, insomnia, and anger within the society (Vibha et al., 2020). It will be very usual that consumers behave more differently than they used to in the period after the crisis in the short and medium term. The change in the consumer habits could be expected to become permanent in the long-term when the vaccine against the disease has been found and most of the people has been vaccinated.

Besides the health problems it caused, the COVID-19 pandemic has profoundly changed both all the working processes of all small-medium-large sized enterprises and institutions within the global economy and the life of people/consumers. We are going through a period during which many things that were not in our daily life in the past will be a part of a "new normal" life. Therefore, to be able to understand the changed consumers and their behaviours, it is necessary to comprehend firstly the environmental uncertainty and perception of risk about the future, both of which are the factors based on the perceptions having a role in shaping the reality of people. Within this direction, the study carried out by Zhou et al. (2016) on the effects of Avian Flu has found out that the risks, fear, and insecurity perceived by consumers negatively affect their behaviours. Along with this affection, there has been significant downward changes in the consumer spending (Jung et al., 2016). According to the data related to the expenditures made through bank cards and credit cards published in the recent research conducted by the Economic Policy Research Foundation of Turkey about The Effect of COVID-19 on Consumer Spending, it could be stated that consumer spending has substantially decreased during the pandemic (Dündar, 2020).

The macroeconomic indicators emerged due to the pandemic and through which researchers are able to make some assumptions have also undergone significant changes. This situation negatively affects the gross national product of countries and therefore, there has been sharp decreases in the income of most consumers. Carlsson-Szlezak et al. (2020) indicate that gross national product is affected from these fractions in three ways, which they describe as V-U-L.

V-shaped: This scenario defines the classic economy shock in which there is a displacement of output while the growth ultimately rebounds. In this scenario, annual growth rates could completely absorb the shock.

U-shaped: The shock still persists and while the growth is maintained, there is some permanent loss in the output.

L-shaped: In order for this shape to be realised, the shock has to cause a significant structural and permanent damage. In other words, there must a breakup in the supply-side (labour market, capital formation, productivity, etc.) of the economy.

Even if the gross national product is expected to return to its formal state in macroeconomic terms, it is possible that a new economic reality will emerge. There is an economic shrinkage throughout the world and this shrinkage, along with the job losses, bring about steep declines in consumer spending (Andersen et al., 2020; Baker et al., 2020; Coibion et al., 2020). Therefore, businesses should correctly evaluate the needs and desires of consumers within the new normal era. When the effects of earlier pandemics (SARS, H_3N_2 (Hong Kong) flu, 1958 H_2N_2 (Asian) flu, 1918 Spanish flu) on gross national product are examined, it could be stated that the effect of all prior pandemics was in V-shaped (Carlsson-Szlezak et al., 2020). When it is thought that we will experience a renewal period after Coronavirus crisis in macroeconomic terms, it is investigated whether there will be a change in consumption spending and practices in behavioural terms.

Digitalisation, online shopping, and accordingly, electronic payment methods have gradually increased even before the Coronavirus crisis (Xu et al., 2019). With the aim of protecting themselves against the contagious virus, consumers have inclined towards online-shopping and e-retail services, accordingly, and have met with contactless and mobile payments. Having just met with these new payment methods, consumers are anticipated to continue to use them during the new normal era. Moreover, consumers have started to encounter with new types of shopping options due to the effects of Coronavirus. The rapid development of online shopping thanks to the improvements in internet technologies (Çelik and Yılmaz, 2011) have directed consumers to do even their grocery shopping online. Since consumers have started to carry out their sport activities at home during the lockdown periods, such novelties and concepts as virtual trainer and virtual fitness have stepped in their lives and it is questioned whether this type of consumption will enable customer loyalty (Baena-Arroyo et al., 2020). Apart from those of sport activities, the differentiations within entertainment, movie theatre and music industries have been analysed to find out that consumers have started to attend movies, theatres, and concerts online. Again, this type of consumption habit will be observed during the new normal era.

The "New Normal Era" will have short, medium- and long-term effects on consumer habits. It is clear that isolation and social distancing terms have

stepped in the social life as short- and medium-term effects of the pandemic. Within this context, the pandemic has undoubtedly and significantly affected the practices of individuals. The consumption aspect of these effects has been examined within this study by referencing other studies on consumers carried out within a limited context during the pandemic and an evaluation of the situation has been conducted along with some projections. Since the decisions about the pandemic affecting the consumption and consumers have been taken by three fundamental units as consumer's own, businesses and law-makers, the evaluations in this section have been summarised within the perspective of consumers, businesses and law-makers.

It has been mentioned earlier that the effects of the pandemic on consumption practices differentiates accordingly to the pace of spread of the pandemic. While the authorities predict that the complete end of the pandemic could be a few years away, this duration could be shortened only by a vaccine, let alone the possibility of a mutation of the virus. The first thing to be envisaged under these circumstances is that individuals should learn to live with COVID-19 and be able to manage the process. Although there has been many talks and discussions about the new normal era, since the lifestyles and daily routines of people has actually undergone a considerable change after the outbreak of the pandemic, the usual normal has already changed and it will be wiser to discuss after the internalisation period of the pandemic during this new normal era. In this respect, the period after the pandemic could be separately evaluated as short and medium terms and the projections about the consumption practices should be made within this context.

1. ***The time starting from the slow-down of spread of the pandemic and returning to old normal era to the discovering of the vaccine (short term):*** The consumption behaviour of individuals is shaped to a great extent by learning. While it is hard to envision the permanence extent of the learnt consumption behaviours during the pandemic, it is anticipated people will behave as they do during the pandemic period and their consumption behaviours will be shaped accordingly. As a matter of fact, the perception of uncertainty related to the realisation of an event is a dimension of psychological distance perceived by individuals (Liberman and Trope, 2008) and as the duration of realisation of the event extends, the individual will not behave accordingly since he/she thinks the possibility of realisation is low. Therefore, it is estimated that individuals will not maintain their consumption patterns they assumed along with the outbreak of the pandemic. It is of strong possibility that individuals heading towards satisfying their physiological needs during the pandemic will draw away the context and return to their prior and normal consumption practices (for instance, they will start to meet their luxury needs that they have restrained for less than a year). This comeback will certainly be related to the removal of structural obstacles created by restrictions and limitations. It is probable that people will re-adopt their old habits in a rapid and longing manner

along with the re-opening of shopping centres, restaurants, and cafés and cease of lockdowns.

2. ***12-36 months' time estimated for developing full immunity against the virus in case no vaccines are discovered within the provisioned time (medium term):*** It is anticipated that the effect of psychological distance observed during short term will be more prevalent during the medium term. This situation is generally explained through smoking metaphor. According to this, an individual thinks the risks in the distant future as having lower possibility and focuses on aspects they feel psychologically close to. For instance, the risk of developing lung cancer for a smoker, the abstract compensation, is the perceived representation of lower-possibility risk while the pleasure coming from satisfying the need for nicotine, the concrete delight, is prioritised as the benefit of now. If explained from the exact opposite point of view, the expectation of abstract benefit of being a healthy person in the long term by not smoking has lower behavioural effect as regards to the concrete compensation by renouncing nicotine pleasure (Zwickle and Wilson, 2013; Singh et al., 2017). Thus, individuals will perceive much lower risk stemming from the virus in the medium and especially in the long term, not be affected by these risks in their purchasing decisions and return to their prior routines. While the utilitarian consumption will lose its influence, the effect of hedonic consumption will again manifest itself.

So, what is the point of these anticipations? Directed substantially towards meeting physiological needs at the beginning of the pandemic, the consumption has later been headed for satisfying pastime needs and products. In the following months during which people will gradually return to their normal life in the "new normal" form, it is anticipated that the consumption of primary physiological needs will return to its normal course while the consumption of preferential or speciality products, secondary needs, is expected to increase. However, since no decrease is anticipated in the level of anxiety of the people, a relatively slow course is expected for the consumption of interactive services.

According to these identifications, consumers from different social classes and statues have found a middle ground in satisfying their physiological needs.

Figure 3. Product consumption weight at the beginning of the pandemic

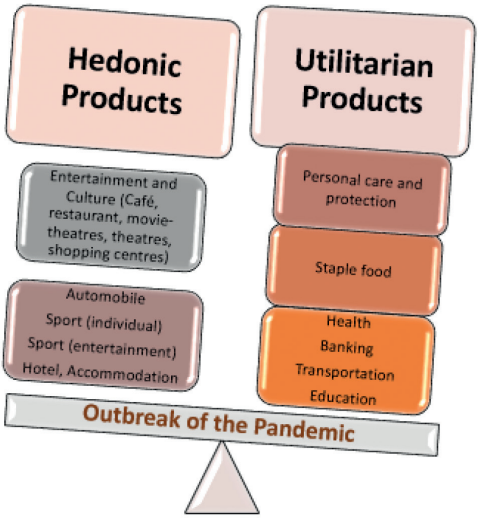
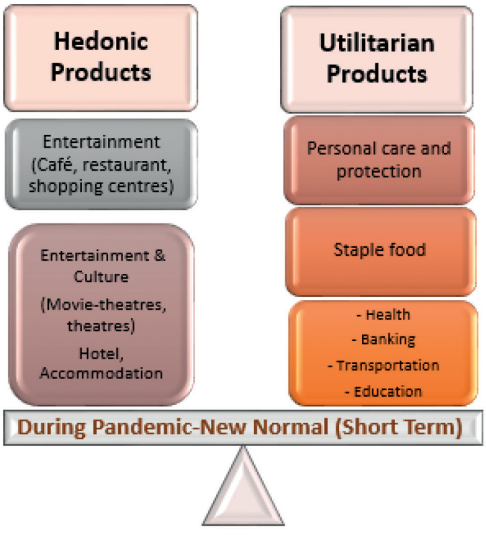


Figure 4. Product consumption weight during pandemic and new normal era



The consumption propensities presented above through representational products have been provided for an average consumer and it is anticipated in the long and short term that class differentiations and stratifications will be prevalent again. According to this anticipation, the significance of utilitarian products will decrease while the propensity to consume luxury products will increase in the A and B Socio-Economic Status (SES) groups which represents the two top layers in the Turkish SES Groups.[6] The C1 group will be balanced through the consumption of preferential and luxury goods while other 3 SES groups will return to their old normal and will continue their tendency to consume utilitarian products. Moreover, the value attributed to the products before the pandemic may change and as a result, it should be considered consumers will pay attention to the criteria of cleanliness, hygienic, and compatibility with social distancing rules after the pandemic. When making evaluations about consumers, businesses should cautiously observe the possible changes in consumption and spending practices by considering the fact that these fractions may result in different outcomes in different socio-economic groups. Thus, the possible changes given in Table 1 may be observed within different socio-economic groups during the post-pandemic period.

Table 1. Possible Changes in Consumption Practices of SES Groups During the New Normal Era

High Socio-Economic Status (A – B)	It could be thought that they have not experienced a bigger-loss of income during the pandemic and as a result there won't be significant changes in their consumption practices. However, due to being kept away from various cultural activities, the individuals of this group may show a greater interest for the sectors of entertainment, culture, and movie after the normalisation period. Besides, there may be an increase in the consumption of luxury products within this group after lockdown period. In terms of hotel and accommodation, they may prefer the alternative choices which will enable social-distancing instead of crowded, luxury hotels.
Middle Socio-Economic Status (C1 – C2)	It is known that a majority of this group has experienced loss of income during the pandemic (Bostan vd., 2020). The individuals of this group have directed towards meeting their basic necessities during the period when the pandemic is effective. Differences in consumption practices may be observed along with economic recovery after the pandemic. There may be changes in the perception of which products meet basic needs and which products meet luxury needs for the members of this group.
Low Socio-Economic Status (D – E)	The individuals of this group have experienced loss of income along with loss of jobs; however, thanks to the financial supports, the extent of income losses is not thought to be significant. It could be stated that there will not be considerable changes in the consumption practices of this group. When it is thought that the majority of the income of these individuals are spent on meeting the basic necessities, the members of this group will experience the least extent of change during the new normal era, whereas they are prone to encounter serious problems since the flow of income has been interrupted.

One of the anticipated behaviours within the perspective of consumers is the difference between those who has experienced the pandemic by self or in the near proximity and those who has not experienced. The individuals having experienced the pandemic personally or within close proximity are expected to maintain their controlled attitude both in their social settings and consumption behaviours.

[6] According to the latest research, there are 6 Socio-Economic Status (SES) Groups in Turkey ranging from A, b, C1 to C2, D, and E. (https://tuad.org.tr/upload/dosyalar/SES_Projesi.pdf)

Various evaluations **from the perspective of consumers** have been presented by this point. However, it is necessary to handle this period **from the perspective of businesses**. Such service businesses where social interaction is at its highest as hotels, catering firms as cafés, restaurants, beauty and care parlours, and cultural activity places as movie theatres and theatres are significantly and negatively affected by the pandemic period. Consumers have renounced or postponed their accommodation and travelling needs while they have substituted their coiffeur and care needs by making their personal care at home. Along with increasing time spent at home, not only physiological needs but also those of pastime activities have been and will be met through digital channels with the aim of minimising physical contact. This new trend has been a good opportunity for the businesses having an already set-up digital infrastructure while it has created a crisis for those having none. As a result, the fundamental teaching to be learnt from the crisis will be integrating the sales and delivery/distribution channels of businesses into digital ones and transforming into multi distribution/delivery channels called omnichannel[7].

Another point to be considered by businesses is that the tendency of consumers towards sustainable and secure consumption will continue (Kişin, 2020b). The task of businesses here should be creating values matching these tendencies. According to this identification, it should be taken into consideration that omnichannel distribution/delivery will be the right strategy for the products in the market and service providers; propensity for stockpiling and e-retailing will increasingly persist; and while the prices will remain as an important purchasing decision factor, consumers will pay more attention to such factors as security, health, quality, and accessibility rather than lower prices.

Solomon (2020) proposes that businesses presenting such services and products as meditation/awareness/health, gaming and e-sport, goods for landscaping and home-design, online learning, subscribed streaming channels, online cultural activities (museum, theatre plays, concerts, etc.), telemedicine, autonomous vehicles, and personal applications will be successful in the post-pandemic new normal era. Moreover, Solomon anticipates that the winner of this new normal period will be socially responsible brands pledging public awareness and identity while taking care of the health of their staff.

Rees (2020) envisages that the demand for face masks, disinfectants and immune-enhancing health support products will continue to rise; solutions will be more appreciated that provides opportunity to drift away from home via augmented reality for consumers whose perception of space has changed due to telecommuting, and consumers will head towards budget-friendly staple and ready-to-eat food rather than snacks. Rees also points out that retail providers should inevitably increase their capacity and improve their services so much so that Amazon has added 100.000 new locations onto its distribution network during the pandemic.

[7] A marketing practice by integrating all distribution and communication channels into physical and online stores through which higher customer experience and uninterrupted service is presented.

The product, in the final analysis, will move away from being 'a value' alone to, as supported by Vargo and Lusch (2011)'s service oriented perspective, a total experience wrapped in and by all the services needed. Good practices as contactless payment and delivery methods could only be developed by the feedbacks and comments from consumers. These improvements will strengthen the fact that consumers are not only consumers but also the common producers of values (Gummesson, 2004).

It is of good benefit to evaluate the pandemic crisis **from the perspective of lawmakers.** During the unprecedented pandemic crisis, the lawmakers have and will make decisions that will affect both the consumption practices and consumers. The lawmakers are especially expected to make decisions that will ease the period and consumption practices.

Even though the consumption needs of the elderly over 65 years of age have been met through public officers during the lockdown periods, the biggest threat for them is undoubtedly their unfamiliarity to the digital world. On the other hand, the phenomena of getting and being old should not only be evaluated within biological terms since it has to assessed by considering psychological, social, and contextual conditions (Moschis, 2012). Indeed, it may be inevitable for an individual to have such physiological barriers as visual or audial handicaps while trying to get integrated into the digital world. The social perspective also changes along with the growing age and the phenomena such as migration increase their vulnerability since it also affects their physical setting. The law-makers should:

- *Categorise the digital necessities of different age groups and in terms of biological age and reveal digital differentiations between biological age groups,*
- *In terms of psychological age, reveal the psychological references of both digital differentiations and technology acceptance rates; assure that the elder consumers are excluded from digital channels and access to these, and provide the cognitive needs in terms of access to and usage of digital services,*
- *In terms of social perspective, put into effect social policies not only based on chronological age (this could be discriminatory in elderliness in terms of wellness); support policies that will enable them to communicate online more easily with service providers, friends and family members; prevent the elderly consumers from being discriminated against from digital channels and enable their access to these,*
- *Consider environmental conditions and make a decision about the necessary software and hardware to provide the basic services, and take into consideration the continuity of non-digital services or integrating them into digital ones in case of digitalisation of services (Nunan and Di Domenico, 2019).*
- *Another point to be considered by lawmakers is to establish the necessary infrastructure and legislative regulations for businesses in order for them to be integrated into digital services as in the case of consumers. Besides, sector-*

specific regulations should be made since service businesses are under more serious threat due to the fact that their created value is based on social interaction.

Conclusion

Since no vaccination against the Coronavirus has been developed, the pandemic is still a big threat for the humanity. Therefore, along with such measures as social distancing and lockdowns, governments impose several restrictions by closing universities, schools, and some businesses and restraining interurban travels. These regulations and measures actually show how big and real the disaster is. Causing devastating results, this situation has altered the consumption practices of consumers which they think as a significant tool to define themselves and created new attitudes that will be seen after the crisis. It is of much significance and necessity to understand these changes and novelties in terms of consumption practices for both such market actors as consumers and businesses and authorities as lawmakers and law-enforcers. Comprehending the new normal era will be much easier when considered from this point of view. The consumption and spending practices during the new normal era have been evaluated within this study from the perspective of marketing discipline with the aim of making some inferences about consumers, businesses, and law-makers. The consumers are going to make a transformation in their consumption practices by making a distinction between basic and non-basic needs. The consumption practices which were regarded as basic and necessary before the pandemic will evolve into luxury class and vice versa, those thought as unnecessary will evolve into basic practices. This evolution reveals that consumers could develop a significant adaptation after they have experienced an orientation period. Besides, consumers will develop and assume different behaviour and attitudes due to their different socio-economic status. Indeed, new consumption practices that have emerged during the pandemic bear changes with regard to different socio-economic status groups. Finally, the effects of the pandemic on businesses and sectors are quite visible. The transformative power of these effects indicates that some of these changes will be permanent.

Acknowledgement

I would like to express my gratitude to my postgraduates Dr. Nezahat Ekici, Dr. Semra Doğan, Dr. Merve Doğan, Dr. M. Sami İşlek*, Dr. Bülent Aydin, and Dr. Ufuk Pala (aligned in accordance with the receiving date of Ph.D. degree) for their remarks, recommendations and efforts during online meetings we had while preparing this manuscript.*

References

Andersen, A. L., Hansen, E. T., Johannesen, N., & Sheridan, A. (2020). Consumer Responses to the COVID-19 Crisis: Evidence from Bank Account Transaction Data. Working Paper.

Baena-Arroyo, M. J., García-Fernández, J., Gálvez-Ruiz, P., Grimaldi-Puyana, M. (2020). Analyzing consumer loyalty through service experience and service convenience: differences between instructor fitness classes and virtual fitness classes. *Sustainability, 12*(3), 828.

Bagozzi, R. P. (1975). Marketing as exchange, *Journal of Marketing, 39*(4), 32-39.

Baker, M. J. (2007). *Marketing Strategy and Management* (6th ed.). Palgrave Macmillan

Baker, S.R., Farrokhnia, R.A., Meyer, S., Pagel, M. and Yannelis , C. (2020). How does household spending respond to an epidemic? consumption during the 2020 COVID-19 pandemic. *NBER Working Paper No. 26949*

Baldwin, R., Weder di Mauro, B.W. (2020). Introduction, in Baldwin, R., Weder Di Mauro, B.W. (eds.), *Economics in the Time of COVID-19*, VoxEU.org Book, CEPR Press, London, 2020, 1-30.

Bostan, S., Erdem, R., Öztürk, Y. E., Kılıç, T., & Yılmaz, A. (2020). The Effect of COVID-19 Pandemic on the Turkish Society. *Electronic Journal of General Medicine, 17*(6), em237. https://doi.org/10.29333/ejgm/7944

Carleton, N.C. (2012). The intolerance of uncertainty construct in the context of anxiety disorders: theoretical and practical perspectives. *Expert Review of Neurotherapeutics, 12*(8), 937-947.

Carlsson-Szlezak, P., Reeves, M., Swartz, P., (2020). What coronavirus could mean for the global economy, *Harvard Business Review*, https://hbr.org/2020/03/what-coronavirus-could-mean-for-the-global-economy. (Erişim Tarihi: 05.05.2020)

Carufel, R. (2020). Consumer behaviour in the coronavirus crisis—new insights on the impact of COVID-19. https://www.agilitypr.com/pr-news/public-relations/consumer-behavior-in-the-coronavirus-crisis-new-insights-on-the-impact-of-COVID-19/

Celement, J. (2020). Effect of COVID-19 on first-time online purchases in the U.S. 2020. https://www.statista.com/statistics/1108519/first-time-online-shopping-during-coronavirus-usa/

Chen, H., Qian, W. and Wen, Q. (2020). The Impact of the COVID-19 Pandemic on Consumption: Learning from High Frequency Transaction Data. Working Paper, April 29.

Coibion, O., Gorodnichenko, Y., & Weber, M. (2020). The Cost of the COVID -19 crisis: Lockdowns, macroeconomic expectations, and consumer spending. *University of Chicago, Becker Friedman Institute for Economics Working Paper*. http://dx.doi.org/10.2139/ssrn.3593469

Çelik, H. E. & Yılmaz, V. (2011). Extending the technology acceptance model for adoption of e-shopping by consumers in Turkey. *Journal of Electronic Commerce Research*. 12. 152-164.

Deloitte (2020). Küresel KOVİD-19 Salgınının Türkiye'de Farklı Kategorilere Etkileri. https://www2.deloitte.com/tr/tr/pages/consulting/articles/kuresel-KOVİD-19-salgininin-turkiyede-farkli-kategorilere-etkileri.html (Erişim Tarihi: 02.05.2020).

Dündar, M. (2020). KOVİD-19'un Tüketici Harcamalarına Etkisi. *TEPAV*.

Erdoğan, B. Z. (2009), "Pazarlama: Küresel krizin suçlusu mu, kurtarıcısı mı?", Tüketici ve Tüketim Araştırmaları Dergisi, 1(1), 41-51.

GfK (2020). Shopping Behavior in the times of crisis COVID -19.

Global Web Index (2020). Retrieved from: https://blog.globalwebindex.com/trends/coronavirus-international-study/ [16.05.2020].

Gummesson, E. (2004). Return on relationships (ROR) : The value of relationship marketing and CRM in business-to-business context. *The Journal of Business&Industrial Marketing*, 19(2), 136-148.

Hofstede, G. (2001). *Culture's consequences*. Thousand Oaks: Sage.

Hürriyet (2020). Retrieved from: https://www.hurriyet.com.tr/ekonomi/evde-tiras-pahaliya-patladi-41492492 [16.05.2020]

IAB TR (2020). KOVİD-19 İle Değişen Dijital Tüketim… https://www.iabturkiye.org/UploadFiles/Reports/iab_Makale_KOVİD-19142020223809.pdf (Erişim Tarihi: 02.05.2020).

IMF (2020). World Economic Outlook: The Great Lockdown. April 14, https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020

Jung, H., Park, M., Hong, K., Hyun, E. (2016). The impact of an epidemic outbreak on consumer expenditures:an empirical assessment for mers Korea. *Sustainability*, 8(5), 454-469.

Kişin, B. (2020a). Koronavirüs Z kuşağına stok yapmayı öğretti https://www.marketingturkiye.com.tr/haberler/koronavirus-z-kusagina-stok-yapmayi-ogretti/ Erişim Tarihi:16.05.2020

Kişin, B. (2020b). Koronavirüs sonrası tüketimde hangi trendler bizleri bekliyor? https://www.marketingturkiye.com.tr/haberler/koronavirus-sonrasi-tuketimde-hangi-trendler-bizleri-bekliyor/_Erişim Tarihi:16.05.2020

Lancet (2020). Reviewing the US CDC. DOI: https://doi.org/10.1016/S0140-6736(20)31140-5

Levy, Sidney J. (1959). Symbols for Sale. *Harvard Business Review*, 37(4), 117-124.

Liberman N, & Trope Y. (2008). The psychology of transcending the here and now. *Science*, 2008; 322, 1201–1205.

London, R.T. (2020). Is COVID-19 Leading to a Mental Illness Pandemic? Medscape Psychiatry, Commentary. https://www.medscape.com/viewarticle/927849

McKinsey (2020). COVID-19: Implications for Business, April 13, McKinsey https://www.mckinsey.com/~/media/McKinsey/Business%20Functions/Risk/Our%20Insights/COVID%2019%20Implications%20for%20business/COVID%2019%20April%2013/KOVİD-19-Briefing-note-April-13-2020.ashx_Erişim Tarihi:16.05.2020

Mediacat (2020). https://www.nexcmo.com/genel/pazarlama-gurusu-philip-kotler-yazdi-ya-paylasimci-olmayi-ogrenecegiz-ya-da-bir-muz-cumhuriyetine-donusecegiz/ Erişim Tarihi:16.05.2020

Milliyet (2020). Retrieved from: https://www.milliyet.com.tr/ekonomi/evde-kalanlar-ekmek-yapmaya-basladi-talep-yuzde-1500-artti-6175916 [16.05.2020]

Moschis, G. P. (2012). Consumer behavior in later life: Current knowledge, issues, and new directions for research. *Psychology & Marketing*, 29 (2), 57–75.

Nielsen (2020a). https://www.nielsen.com/sg/en/insights/article/2020/covid19-new-norm-consumer-behaviour/_Erişim Tarihi:16.05.2020

Nielsen (2020b). https://www.nielsen.com/us/en/insights/article/2020/key-consumer-behavior-thresholds-identified-as-the-coronavirus-outbreak-evolves/ Erişim Tarihi:16.05.2020

Nunan, D. & Di Domenico, M. (2019). Older consumers, digital marketing, and public policy: a review and research agenda. *Journal of Public Policy & Marketing*, 38(4) 469-483.

Odabaşı, Y. & Barış. G. (2010), *Tüketici Davranışı* (10.Baskı). Mediacat Yayınları.

Puget, Y. (2020). Ces 4 tendances étonnantes de la consommation pendant le confinement https://www.lsa-conso.fr/ces-4-tendances-etonnantes-de-la-consommation-pendant-le-confinement,348499 Erişim Tarihi:16.05.2020

Qiu W, Rutherford S, Mao A, Chu C.(2017). The pandemic and its impacts. health, culture and society, Dec. 1-11. https://doi.org/10.5195/hcs.2017.221

Rees, T. (2020). COVID-19 Effect on Pacgaked Food. *Euromonitor International Reports*, April

Sezgin, F. (2003). Kriz yönetimi. *Kırgızistan Türkiye Manas* Üniversitesi *Sosyal Bilimler Dergisi*, 4(8), 181-195.

Sinclair, L. & Tolay, İ. (Mayıs, 2020). Belirsiz zamanlarda tüketici ihtiyacını anlamanıza yardımcı olacak içgörüler: https://www.thinkwithgoogle.com/intl/tr-tr/icgoruler/tuketici-icgoruleri/belirsiz-zamanlarda-tuketici-ihtiyacini-anlamaniza-yardimci-olacak-icgoruler-27-nisan-2020/ [16.05.2020].

Singh, A.S., Zwickle, A., Bruskotter, J.T. & Wilson, R. (2017). The perceived psychological distance of climate change impacts and its influence on support for adaptation policy. *Environmental Science and Policy* ,73 (2017) 93–99

Solomon, M.R (2020). Consumer Behavior in the New Normal. Forbes, April 13. https://www.forbes.com/sites/michaelrsolomon/2020/04/13/consumer-behavior-in-the-new-normal/#358f5deb5da3_[16.05.2020].

Sweeney, E. (2018). 53% of consumers believe brands can do more to solve social problems than governments. https://www.marketingdive.com/news/53-of-consumers-believe-brands-can-do-more-to-solve-social-problems-than-g/538925/_[16.05.2020]

Taha, S., Matheson, K., Cronin, T., & Anisman, H. (2014). Intolerance of uncertainty, appraisals, coping, and anxiety: The case of the 2009 H 1 N 1 pandemic. *British journal of health psychology, 19*(3), 592-605.

Taşdemir, B. & Fındık, D. (2017). Sayısal bölünmenin sosyo-ekonomik boyutu: Türkiye'de yetişkinlerin bilişim teknolojileri kullanım becerileri ve kültürel sermaye ilişkisi. *Akdeniz* Üniversitesi İletişim *Fakültesi Dergisi*, 2017(28), 39-59.

TEPAV (2020). Retrieved from: https://www.tepav.org.tr/tr/haberler/s/10099 [16.05.2020]

Triandis, H. C. (1995). *Individualism and collectivism*. Westview Press.

Tse, D. K. (1996). Understanding Chinese people as consumers: Past findings and future propositions. In M. H. Bond (Eds.), *The handbook of Chinese psychology*. Hong Kong: Oxford University Press.

TUAD (2012). Sosyo-Ekonomik Statü Ölçeği Araştırması https://tuad.org.tr/upload/dosyalar/SES_ Projesi.pdf Erişim Tarihi:16.05.2020

Şeker, M., Özer, A., Tosun, Z., Korkut, C., & Doğrul M. (2020). COVID-19 Küresel Salgın Değerlendirme Raporu, Türkiye Bilimler Akademisi Yayınları, No: 34 ISBN: 978-605-2249-43-7

Ugolini, S. (2020). Ces produits que les consommateurs achètent moins pendant le confinement. https://www.capital.fr/entreprises-marches/quels-produits-sont-abandonnes-par-les-consommateurs-pendant-le-confinement-1366753?amp [16.05.2020].

Uiterkamp, Anton J.M. & Schoot (2007). Sustainable household consumption, in Zaccai, Edwin (ed.*), Sustainable Consumption, Ecology and Fair Trade*, Routledge.

Vargo, S.L.& Lusch, R. F. (2004). Evolving to a new dominant logic. *Journal of Marketing*, 68(1), 1-17.

Vargo, S.L. & Lusch, R. F. (2011). Service-dominant logic: a necessary step, *European Journal of Marketing*, 45(7/8), 1298-1309.

Varnalı, K. (2020). KOVİD-19 salgınında tüketim psikolojisi: https://mediacat.com/KOVİD-19-salgininda-tuketim-psikolojisi/ [16.05.2020]

Vibha, P., A., N., Kamath, G., B., Pai, D., V. (2020). "Keeping the Country Positive during the COVID 19 Pandemic: Evidence from India", Asian Journal of Psychiatry, DOI: https://doi.org/10.1016/j.ajp.2020.102118.

Xu, X., Rong C. & Lan J. (2019), The Influence of Payment Mechanisms on Pricing: When Mental Imagery Stimulates Desire for Money, *Journal of Retailing*, 96.

World Health Organization. (2020). Retrieved from: http://www.euro.who.int/en/health-topics/communicable-diseases/influenza/pandemic-influenza/past-pandemics [16.05.2020]

Zhou, L., Turvey, C. G., Hu, W. & Ying, R. (2016). Fear and trust: how risk perceptions of avian influenza affect Chinese consumers' demand for chicken, *China Economic Review*, 40, 91–104.

Zwickle, A. & Wilson, R. (2013). Construing risk: Implications for risk communication. In *Effective risk communication* (Joseph Arvai, Louie Rivers III, Eds.), 216-229.



Conceptualization of Uncertainty and Trust after the COVID-19 Outbreak

Ahmet Faruk Aysan

Prof. Ahmet Faruk Aysan

Dr. Aysan is currently a professor at Hamad Bin Khalifa University (HBKU), College of Islamic Studies, Islamic Finance and Economy Program, and the Ph.D. Director of the Islamic Finance and Economy program. Dr. Aysan has been the Board Member and Monetary Policy Committee Member of the Central Bank of Republic of Turkey. Dr. Aysan served as a consultant at various institutions such as the World Bank, the Central Bank of the Republic of Turkey and Oxford Analytica. He has also served as the Deputy Director of the Center for Economics and Econometrics at Bogazici University, a member of the G-20 Financial Safety Net Experts Group, a member of the Advisory Board of Social Sciences and Humanities Research Group of TUBITAK, a National Expert of the European Union and the Dean of Management and Administrative Sciences at Istanbul Sehir University. He received grants from various international funds including the ERF, Newton funds, and TUBITAK. Dr. Aysan has also served at the advisory board of the Contemporary Turkish Studies at the London School of Economics and Political Sciences (LSE) European Institute.

Conceptualization of Uncertainty and Trust after the COVID-19 Outbreak[1]

Ahmet Faruk Aysan
Hamad Bin Khalifa University
ahmetfarukaysan@gmail.com

Abstract
This study underlines that we need concepts other than short-term events, stories, narratives, and facts for long-term analysis. In the short term, events and new data may be important. However, we need efforts to construct theory so that these data, events that take place can collectively imply something more meaningful. Theories, on the other hand, can be constructed more accurately and explained better with some concepts. In this study, two concepts were benefited to understand the long-term trends, especially in the economic field, and to put the events into a perspective. These concepts are "uncertainty" and "trust" that are very closely related to each other. In this article, the dimensions of uncertainty that emerged after COVID-19 were pointed out. These uncertainties include uncertainties regarding the spread of the COVID-19 outbreak as well as governance uncertainties on a global scale. Uncertainty in global production chains has been replaced by consumption uncertainty over time. The lack of global governance networks in building trust at a global level against all these uncertainties is emphasized. At the country level, the relationship of trust and uncertainty between the state, government, and the individual became more visible after the COVID-19 outbreak. The concepts of uncertainty and trust in this study should be used in efforts to understand and conceptualize the COVID-19 crisis.

Keywords
Uncertainty, Trust, COVID-19, Governance, Institutions

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

When the COVID-19 virus started to affect the Wuhan city of China, it was very difficult to predict that the epidemic could spread to the whole world and that economies across the globe could be affected by the process. This rare epidemic in world history has shown us how scientists can be productive in their field. Many scientists approached the COVID-19 crisis from their perspective. While prestigious magazines announced their special issues on COVID-19, many academics were already writing their articles on the epidemic. We tried to understand what the COVID-19 outbreak was and how it could spread with webinars and rapidly published opinion writings. These efforts brought along some policy recommendations on the most effective measures against the spread of the outbreak. Britain attempted to follow the herd immunity model at first. Similarly, in the countries that declared a curfew and announced tight measures to prevent the spread of the crisis, policymakers made these decisions in consultation with scientists. Although the explanations and the precautions regarding the COVID-19 crisis differed in the scientific world, it soon showed that some of these views came to the fore in time.

The COVID-19 outbreak once again confirmed the dimensions of globalization, both with the rapid spread of the virus and the ideas the epidemic produced worldwide. In retrospect, I ponder on what remains from the COVID-19 crisis to the world of science and the world of knowledge. For example, some of the quickly written articles are already expired. More enduring and more conceptual studies will be carried out when the dust regarding the COVID-19 crisis settles. In this article, I will try to show that the concepts of "uncertainty" and "trust" will come to the fore in understanding and making sense of the global economy after the COVID-19 outbreak. These concepts are of course not the concepts I produce. These are mostly concepts already well studied in social sciences. However, the concepts of uncertainty and trust in how the global economy is affected by the outbreak of COVID-19 and how it will follow

from now on can provide us a holistic view.
Before delving into these concepts, I would like to briefly explain why we need such conceptualizations. Indeed, the fastest and most wide-ranging studies on COVID-19 are the best proof of our need for a conceptualization. The state of affairs without conceptualization remains mostly as information transfers and piecemeal analyses. However, more holistic analysis, pondering over concepts in terms of the construction of other thoughts on thought, the ease of comprehensibility, and even the necessity of being able to explain increase the power of ideas. Conceptualizations are often very complex and may have difficulties in explaining special situations. However, even to appreciate that these special situations are really special, it is useful to approach the issues with some concepts in mind. We can say that this debate is a sort of methodology discussion. At this point, there may be those who prefer to follow different methods. Nevertheless, we need to get away from the special, exclusive analysis of the day and understand the concepts and the global economic orientation such that we can apprehend the long-term trend. The concepts of uncertainty and trust play a pivotal role in our understanding of the economic reactions led by the COVID-19 outbreak.

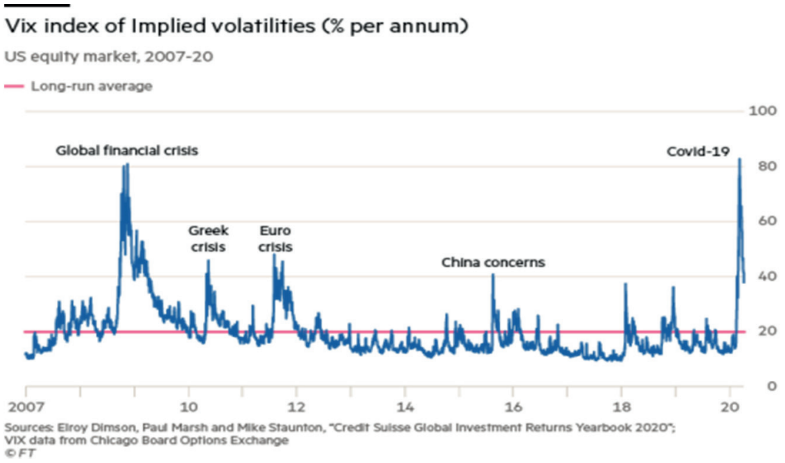
Uncertainty

COVID-19 outbreak showed its impact on the global economy through uncertainty. First, there was an uncertainty about what the COVID-19 virus was. Even when a doctor diagnosed that the disease spread in China was a new type of COVID, this finding did not have the chance to be admitted immediately. Now the US claims that China hid the spread, although it knew the outbreak. The World Health Organization (WHO) also gets its share of similar criticism. The information is not clear at first, it is the first issue. Then, this information is not transferred to other countries on time, and this created a serious uncertainty about the truth in the COVID-19 outbreak. It has been realized over time that there is no alternative fact about the virus. The information noise experienced especially in the early stages of the outbreak can be attributed to the rare occurrence of such crises. However, many conspiracy theories about the outbreak and spread of the outbreak are still in demand. Some believe that this virus is a disaster spread by China, while a group in China thinks that this crisis was brought to Wuhan by American soldiers. Although these are closer to being examples of propaganda wars, this process has shown that groups do not lose any time in forming their alternative truths. Even the tendency to create alternative reality or believe in alternative facts is related to the problem of trust, another concept of this article.

As the level of information certainty decreases, people tend to accept the information or narratives of whom they trust. For this reason, as well, there is a logic to build this article on two concepts. Under rising uncertainty, people tend to accept the explanations of people and groups that they trust more to get rid of the discomfort zones caused by this increasing uncertainty.

Eventually, everyone has his or her alternative truths. However, in cases where uncertainty is less, it is easier to agree on the truth. Recently, the construction of reality through narratives has become a professional line of business for some. The importance of creating alternative reality through the Facebook ads and news in the Trump's election victory continues to be discussed. In Figure 1 and Figure 2, we see that the uncertainty expressed by stocks and economic policy uncertainties peaked with the outbreak of COVID-19 in the USA. We know that these uncertainty indices are frequently used resources, especially during times of economic fluctuations.

Figure 1. The Course of the VIX Uncertainty Index Expressed by the Stock Market in the USA



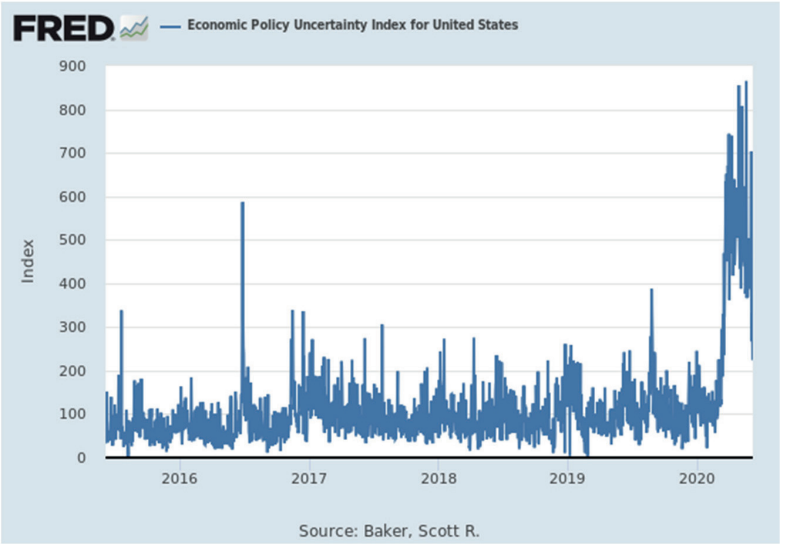
***Source**: Financial Times. VIX 'fear gauge' in recovery from COVID-19 shock.*

In terms of the subject of our article, uncertainties about the economy come to the fore after the COVID-19 outbreak (Figure 1 and Figure 2). After the COVID-19 outbreak all over the world, uncertainty indices peaked. We observe the reflections expressed by these uncertainty indices in daily economic activities. First, economic uncertainty was realized in the supply direction. China has become the biggest factory in the world with its last 40 years of performance. About a quarter of global industrial production is carried out in China.

The city of Wuhan, the center of the epidemic, is also the logistic center in China. For this reason, disruptions in production in China immediately affected the production planning of the factories in the rest of the world. As the inputs did not come from China in the later stages of the crisis, automobile factories in Europe and Japan had to interrupt their production. Fortunately, production uncertainties originating from China have decreased with the onset and early control of the COVID-19 epidemic in China. However, this uncertainty in the supply chain has increased insecurity on the global supply chain. After the epidemic, instead of *just in time* philosophy, many factories and companies

have started more thinking about the *just in case* production approach. These country-based risks and uncertainties in the global production chain have led firms to prioritize their risk-dispersing strategies by diversifying their productions into different countries. In an environment where uncertainty about trade wars continued, uncertainties originating from COVID-19 have ascended in the business sphere. The Japanese government has announced a loan incentive package for companies that will shift their production from China to other countries. The trade war negotiations remain to be an issue. This probably intentional uncertainty itself deters the firms to invest and produce in China.

Figure 2. Economic Policy Uncertainty Index for the USA



Source: *Baker, Scott R. 2020. Economic Policy Uncertainty Index for the United States. FRED.*

In the later stages of the COVID-19 outbreak, the global economy was exposed to demand-side uncertainties this time. With the rapid spread of the outbreak, curfews have been declared in many countries, and social life has started to take place under certain restrictions. Economic demand suffered greatly due to foreclosures in restaurants, cafeterias, and many other public places. We immediately observed the decrease in economic demand in national income accounts and world trade. Except for food, health, and communication services, people staying at their homes do not need much to consume. The more important determinant of economic demand is the current income of households and forward-looking income expectations. In the meantime, many people lost their jobs because of the COVID-19 outbreak. In the USA, where the labor market is very flexible and unprotected, unemployment has reached a level of 15 percent in a very short period. Since labor rights are more prominent in Europe, even though unemployment rates do not increase as fast as the USA, it is inevitable that people in the European Union, which expects a

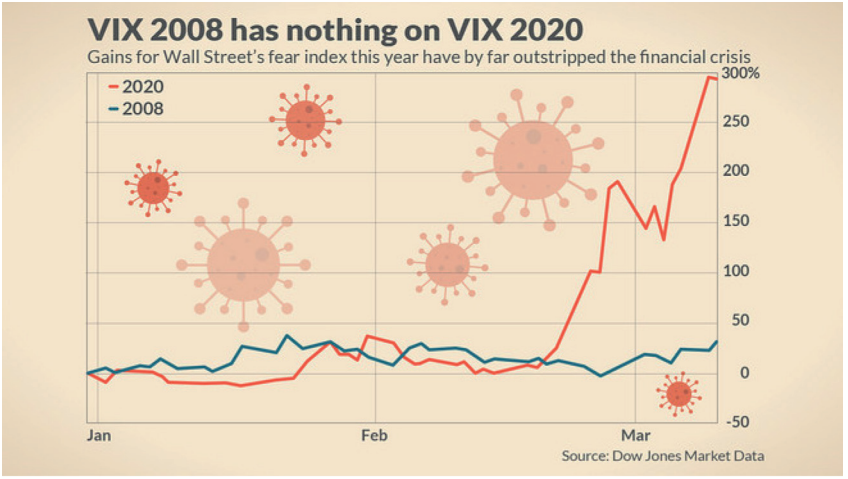
9 percent contraction in 2020, sense uncertainty about their income. However, more importantly, considering the unknowns about when the COVID-19 outbreak will end, whether vaccines can be found and whether they will be effective even if the vaccine is found, it is common for individuals to have uncertainty about the income they expect in the future. Individuals who are more concerned about future income are expected to cut back on their current consumption (Friedeman, 1962). Even in countries where the measures taken against the COVID-19 epidemic began to normalize, consumption has not yet reached its previous levels.

States in fact acted swiftly to reduce demand-side uncertainties. The great depression has taught us how difficult it is to resurrect the demand once it has stopped. Politicians taking lessons from historical experiences will not allow economic demand to halt. For this reason, each country immediately started announcing direct income transfers within its means. Britain distributed £2,500 to all employees and returned the tax paid by to entrepreneurs in the previous year. Direct income support plans were introduced to employees to prevent layoffs across the EU. Similar policies were implemented in Japan. Similar policies were also put into practice in almost all countries. However, even these plans do not guarantee the future income of people. In an environment where the economic effects of the COVID-19 outbreak are not known, consumption will continue to be interrupted in terms of income expectations.

The COVID-19 outbreak may cause some structural changes in the economy as well. The economic turmoil that erupted with the COVID-19 outbreak could accelerate the structural transformation observed in economic life. Before the COVID-19 outbreak, the whole world was discussing the increase in efficiency that came with digitalization. With Industry 4.0, developed countries were investing more in technologies where only robots work, and human labor is not needed much. Developing countries that want to control their supply chains and production more after the COVID-19 outbreak will invest more in Industry 4.0 project. In an environment where social distance is a problem, robots are expected to be used more in the industry and even in the services sector. At the same time, the COVID-19 crisis has shown that even large and well-established companies may not be able to withstand such shocks. We all observe together that companies that distribute profits constantly due to equity pricing reasons do not have substantial reserves for rainy days. Companies with less capital, more leverage are struggling in the COVID-19 outbreak. It is revealed that well-established airline companies are not able to offer lifelong guaranteed jobs to their employees. All these developments have shown how uncertain future income is for employees. For the wealthy with high assets, the low return problem of assets will continue for a longer period. After the 2008 global crisis, interest rates were already at historically low levels. Following the COVID-19 outbreak, central banks lowered interest rates further to support the economy. Nevertheless, assets were repriced after the COVID-19 outbreak. The prices of assets in stock exchanges and the other wealth assets dropped in the first place. This causes the owners to decrease their consumption with this

negative asset pricing effect, considering that their wealth is decreasing and they will be less rich in the future. The way to overcome all these income and asset uncertainties is related to trust, another concept of this article. As long as governments can give their citizens confidence in their future income and wealth, they can prevent their economies from demand-driven shocks. But of course, establishing trust is not easy. Although the confidence in economic policymakers is high especially in developed countries, the opportunities of all local policymakers are limited against the global economic developments as a result of structural changes caused by rapid creative destruction in technology. There is no easy solution other than taking the necessary steps to reduce uncertainties against economic uncertainties and to establish correct communication and trust on time.

Figure 3. VIX Uncertainty Index in Covid 19 and 2008 Global Crises



Source: *Ortiz-Ospina, E. (2016). Trust and GDP. Our World in Data.*

The 2008 global crisis, which we have experienced in the relatively recent past, gives us crucial hints on how to reduce uncertainty in the economy and establish trust. This type of crisis affects countries through three channels: i. international trade channel, ii. international finance channel and iii. expectations channel. As long as countries can reduce uncertainties about these channels, they can give their citizens and global markets more confidence. It is not under the country's control to reduce all uncertainties in the international trade channel. After the COVID-19 outbreak, some customs have been closed all over the world and international transportation has been difficult. Although such logistical problems start to be overcome in time, the expected economic contraction in the global economy, around 3 percent, necessarily indicates a higher contraction in the global trade. Besides, countries have started to emphasize more domestic production and employment to compensate for this decrease in revenues. This approach also confronts us as a long-term problem in international trade. These uncertainties that suddenly appear in

international trade also test the trust of companies in each other. Firms that shake the mutual trust by pretexting force majeure should be aware of the fact that they are committing self-harming in the long-term.

There was a net capital outflow at the beginning of the COVID-19 crisis, in the developing countries that could not borrow in terms of their own currencies in international markets. Developing countries experienced this process, which we call a *flight to quality*, right after the 2008 global crisis as well. The first reaction of international investors in such unexpected global crises is to withdraw their investments into safe harbors. Although the 2008 global crisis came out of the USA, international investors preferred initially to park their funds primarily on US bonds. We saw a similar reaction in the global financial markets after the COVID-19 outbreak. While the US dollar swiftly appreciated, interest rates decreased rapidly in developed countries. Developed countries with negative interest rates were preferred instead of developing countries. As in the 2008 global crisis, when the dust settles, it is essential to expect a reversal of the flow of funds towards the developing countries, which are perceived riskier once the uncertainty increases. As a matter of fact, as in the 2008 crisis, the central banks of the developed countries quickly took steps in this crisis. They quickly reduced already low policy rates. They try to keep financial conditions as loose as possible by resorting to channel the funds to risky bonds, bills, and stock purchases apart from the interest rate cuts. Developing countries will also get their share from these funds when uncertainty decreases and risk appetite increases.

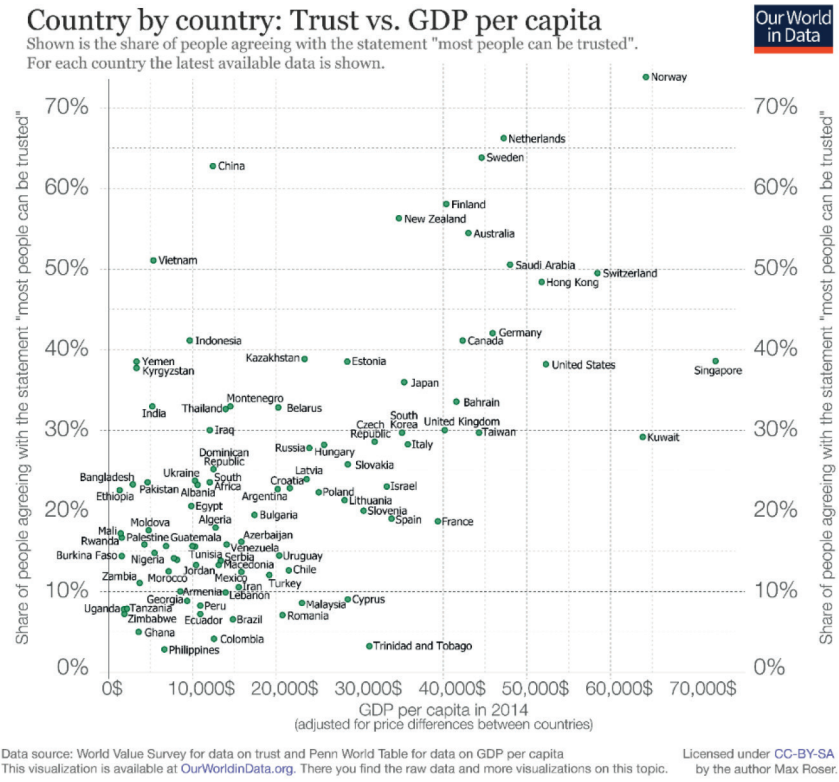
Let me complete this part by linking it to the trust concept. The countries that investors in the global financial markets will turn to will be the countries that give their investors more confidence. Especially for countries with savings deficits, providing long-term financing from global financial markets is essential for high and sustainable growth (Sachs, 2003). To this end, countries should try to attract long-term financing by establishing confidence in the global markets rather than being attractive only in the short term by offering high-interest rates.

Trust

We frequently use the concept of trust in economics like trust in international finance, trust in domestic currency and trust in financial stability. Sometimes you might think that this concept is a keyword to explain everything in economics or a tautological term. Indeed, the concept of trust has an important place, especially in classical liberal economics. For this reason, the discussion of the concept in the literature is very old. Adam Smith became the father of modern economics by building trust in people's selfishness, believing that people will pursue their self-interest, not sympathy for each other. Relying on people to follow their interests has made economics. It was not the norms of the society that Adam Smith trusted, the morality of people or sympathy for others.

Adam Smith's main contribution is the belief that individuals would act in their self-interest. He stated that individuals could establish a social order by reckoning that others would act according to their self-interests too. In the early 1980s, trust studies gained momentum in the literature with the increase in trust in the market with neoliberal globalization (Rodrik, Öniş & Aysan 2000). Francis Fukuyama, who declared the end of the bipolar world in 1989 and claimed the end of history, wrote his book titled Trust (Fukuyama, 1995), which supported the Post-Washington consensus. In the free market system, the main task of the state is to establish confidence in the market by setting the rules of the market (Hayek, 1960) instead of directly intervening in the market. Relying on an invisible hand, believing in the market is perceived to make the system more flexible and functional. Figure 4 can give an idea of confidence and economic growth. As confidence increases, it is observed that the national income growth rates per capita increase.

Figure 4. Trust and Economic Growth



Source: *Our World in Data https://ourworldindata.org/*

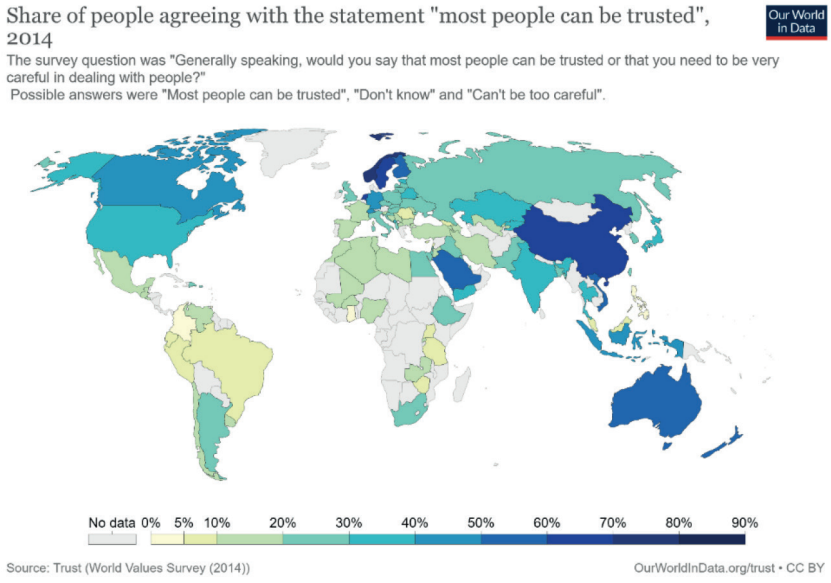
The concept of trust is not just a concept of economics. The importance of trust in psychology, management, organizational thinking, sociology, accounting, and finance has also been pointed out. Trust comes to the fore as a concept that leads to multidisciplinary studies. Avner Greif pointed out the importance of trust in trade with historical examples (Greif, 1992). In this study, we do not intend to deal with the literature on trust from the beginning. I would like to bring the concept for the analysis of the COVID-19 epidemic and its consequences and the economic developments that may occur in the future. As a result of the COVID-19 crisis, we can see that countries, companies, and individuals have a serious loss of trust between each other and among themselves. Perhaps this loss of confidence already existed, but such a crisis exposed the degree of confidence to a real test. Countries became skeptical of each other's data during the first phase of the COVID-19 outbreak. The problem of trust, already damaged in recent years, between the USA and China, peaked with COVID-19. Comments were made that China hid the epidemic and there will be no confidence in the shared Chinese data. In the later stages of the crisis, countries closed their borders to countries where the epidemic spread rapidly, and then to the whole world. During the epidemic, as a result of the increase in the demand for medical materials, countries banned the export of medical supplies. Exports of intensive care respirators could not be done, although there was a need in other countries. Very basic products such as masks have been scarce all over the world and countries have to prioritize their citizens. Similar restrictions were experienced in food products. Grain exporting countries such as Russia and Ukraine went to export restrictions. All these developments made the globalization to be questioned. More countries have emphasized the importance of being a self-sufficient country at least in the fields of food and health.

The national reactions to the COVID-19 outbreak, which is a global crisis, actually showed that international governance mechanisms did not work very well in these periods. It is evident that institutions such as the World Health Organization (WHO) that need to provide global governance in health do not have much authority and effectiveness. However, in the 2008 crisis, which is a global crisis, global governance mechanisms were put into effect rapidly and global financial governance mechanisms were strengthened in the 2008 crisis. For example, we see that the G20 became very active after the 2008 global crisis and the global coordination problem is tried to be solved with this channel. G20 countries, which gathered at the level of finance ministers until the 2008 crisis, started to gather at the level of leaders (presidents) immediately after the crisis. G20 started to replace G7 and G8 in global governance. Important decisions have always been made at G20 meetings, at least in the first years after the crisis. The Financial Stability Board (FSB) was established to make structural decisions in global financial governance. IMF quota reform has given developing countries more voice in the IMF. The IMF and the World Bank changed their traditional approach after the global crisis, contributing to global financial governance with much more flexible supports. After the COVID-19 outbreak, although the epidemic and the economic

effects of the epidemic were global, we could not see serious collaborations in global governance. Aside from global collaborations that could be attempted against a global problem, countries have uncovered the old conflicts by taking advantage of this crisis. The Trump government's inward-looking attitudes also depicted the lack of a leading country that set an agenda on a global scale.

Another problem of trust was between individuals and the state[2]. Governments that shut everyone down to their homes and the governments that tried not to disrupt the normal daily order to develop herd immune systems, were also criticized. Prolonged precautionary measures caused serious economic concerns. In this trade-off between health and economic life, policymakers continue to decide on behalf of individuals. While governments reached more information about individuals to control the COVID-19 outbreak, this caused "big brother is watching us" discussions. These discussions were experienced most vividly in the USA. With the incentive of Trump, protests were held against the provincial governors, who continued their COVID-19 restrictions. While Democrats favored restrictions and accused Trump of failing to take adequate and timely measures, Trump supporters claimed that these restrictions restrained individual freedoms and were against the US constitution. It seems fair to say that whoever trusts a source ex-ante, also trusts the measures and policies taken by this source.

Figure 5. Global Trust Data Map

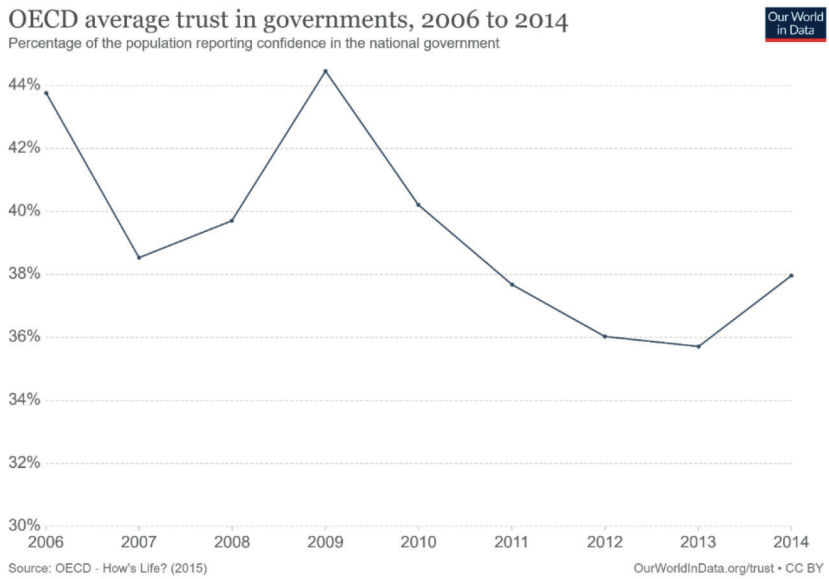


Source: *Our World in Data https://ourworldindata.org/*

[2] The confidence data map in Figure 5 can give an idea for the overall level of trust of people in different countries.

In the developed countries with a high elderly population, who were seriously wounded by the COVID-19 outbreak, the crisis also shook trust in the institutions of the state. Serious loss of confidence has occurred in healthcare institutions believed to be strong in Italy, Spain, the UK, and even in the USA. The institutions of the developed western countries have been suspected of not as strong as once thought, against such rare shocks. It turned out that state competence and state capacity are more important than whether a country is democratically governed[3] or not in the crisis. The case of Brazil for example revealed that in the COVID-19 epidemic populism only worked in the short term.

Figure 6. Trust on Governments in OECD Countries



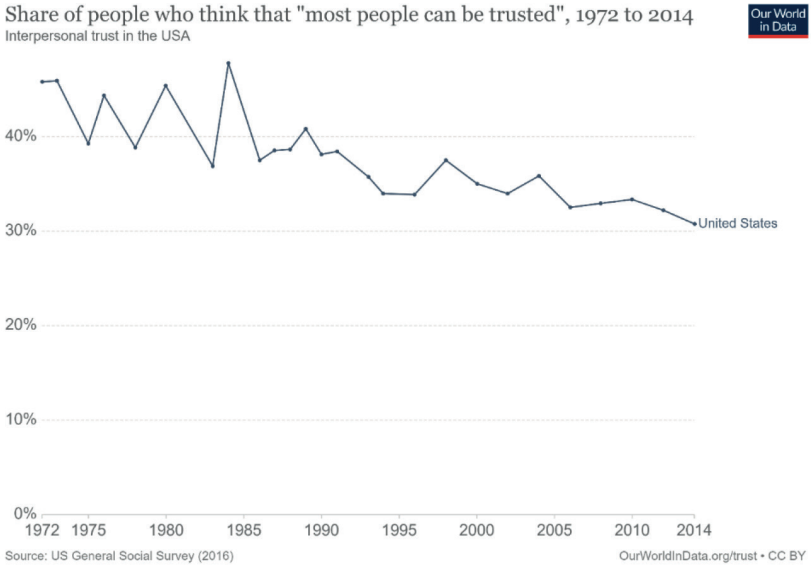
Source: *Our World in Data https://ourworldindata.org/*

The COVID-19 outbreak seems to be an important breaking point in history. For this reason, there is no doubt that as academics, thinkers, policymakers have so far produced many works on the COVID-19 epidemic and its consequences. Hence it is indisputable that many ideas will be developed and different analyses will be made henceforward. We are already expecting that very meritorious works will be produced in relatively more macro areas such as on state formation, globalization and technological creative destruction. However, the COVID-19 outbreak and its outcomes will also be further investigated at the individual and social levels. The personalities, psychologies, philosophical and social aspects of individuals who cannot leave their homes for a long time should be studied. For example, as a result of the COVID-19 outbreak, how will individuals' need to establish social distance affect the trust

[3] In order to give an idea, the average trust in governments can be seen in OECD countries over time in Figure 6.

between individuals? Even though individuals trust their states and institutions, will individuals' perceptions of risk change in this global order? How will individuals trust each other after these developments over time?[4] Even if we realize the importance of building a more sustainable, environmentally friendly world, can we be too late to prevent such global disasters?

Figure 7. Trust Decreases in the USA



Source: *Our World in Data https://ourworldindata.org/*

All these questions shake the individual's trust in the routine of the world. In the internet age, an individual, who is rapidly aware of the risks, feels a passive and existential threat to these risks. Hence, the coaching and mentoring books that reflect these perspectives are expected to be among the best sellers after COVID-19. I envision that questions such as how to trust people more and how to build trust to be successful in life at an individual level will be scrutinized more.

Such serious shocks are also testing the trust between companies. While everything is going well, we may not find mechanisms to test trust on a company scale. However strong reliable companies that act ethically in difficult times will separate from others. However, this separation may not be very easy due to the asymmetric information. Although the epidemic affected the whole world and all firms, each firm, each sector was not affected by the crisis at the same level. For this reason, the issue of information asymmetry, also mentioned in the previous section, is important. If the information is asymmetrical, the

[4] Over time, individuals' trust in each other is measured in countries. As can be seen in Figure 7, with the neoliberal globalization in the USA, the individuals' trust in each other decreases.

question of whether the firm is acting differently due to the COVID-19 binding necessities or using it as an excuse is a question of trust. In practice, we observe plenty of examples of this problem. For example, a textile company states that a British company they have been working with for years did not withdraw items from customs by using COVID-19 as an excuse. Companies that can give trust to other companies and international trade stakeholders with their honest behaviors will be more advantageous in terms of reliability they have created in the long term.

In essence, the continuity of the system depends on trust, especially in our world where trade and financial globalization has been experienced in the last 40 years. The free market emphasis on neoliberal globalization assigns a central role to the concept of trust. Therefore, how global economic relations will turn after COVID-19 will be related to the establishment and consolidation of trust. So far, you may be thinking that my thoughts on the concept of trust remain abstract. For this reason, I will next talk about a very good example experienced in Turkey[5] regarding the importance of trust in the COVID-19 process.

When the COVID-19 outbreak news broke out, the primary focus was on health measures. The general acceptance was the 'health first' approach, as we did not know exactly to which dimensions the outbreak could reach. What kind of reaction should be given against this epidemic crisis, which we do not know or have not experienced before? If you pay attention to the essence of the issue, there is an uncertainty issue that I mentioned in the first part. We routinely know who should behave in certain situations and who is responsible. But when the uncertainty about the extent of the epidemic combined with the uncertainty about the precautions to be taken, the question of who should we trust against these uncertainties emerged. Ministry of Health launched the Scientific Advisory Board to build trust under these uncertainties. Every day, Minister of Health met with the Coronavirus Scientific Advisory Board before explaining the precautions against the epidemic and communicated that these precautions announced were discussed in this board and that the measures taken were the decision of the Coronavirus Scientific Advisory Board. I do not know how the Coronavirus Scientific Advisory Board decides, who assembles this board, what are the rules of internal governance. I do not think many people know that either. But under such obscurity and uncertainty, people paid attention to the views of scientists who specialize in their subjects, and they trusted their advice more. They believed that scientists would make more accurate decisions in uncertainties where information was noisy. The fact that the COVID-19 epidemic problem that has not been encountered before also strengthened the trust in science and scientists. Trust in experts of the subject played a key role in ensuring that the community largely complied with the measures taken against the COVID-19 epidemic and followed the recommendations given by the Coronavirus Scientific Advisory Board

[5] About Turkish economy works, you can see Aysan, A.F et al., regarding Turkish social politics works, you can look at Aysan, M.F et al.

Committee members. In fact, this example showed how important institutions and trust are in our daily lives. In the most difficult times, the Ministry of Health which has a Scientific Committee showed how trustworthy institutions reduce uncertainty and facilitate the work of policymakers during times when uncertainty peaked. While the economists who adopt institutional economics (North, 1990) approach emphasize the importance of institutions, they highlight the trust that institutions provide to the economy[6]. Confidence in the economy reduces transaction costs by reducing uncertainties in economic relations (Rodrik et al., 2002).

Concluding Remarks

The COVID-19 outbreak seems to be remembered as an important junction in world history. Amid this epidemic, writing these lines makes it difficult to make long-term inferences. Estimating the course of the future from a point in history should be especially difficult for economists like me. We will be able to make better predictions over time.

In time, many questions that seemed very important today will lose their significance. We will be discussing more the social, cultural, economic, political and individual relationships that changed after COVID-19 instead of questions such as how many people suffered from COVID-19 disease and how many people survived the disease. In this study, I aimed to contribute to the social sciences research in the longer term. This study emphasizes that we need concepts other than short-term events, stories, narratives and realities for the long-term analysis. In the short term, events and new data sets may be important. However, we need some theorizing efforts for the events that take place to explain them with consistency. Theories, on the other hand, can be constructed more accurately and explained with the help of some concepts.

In this study, two concepts were used to understand the long-term trends especially in the economic field, and to put the events described in a short term into perspective. These concepts are the terms of uncertainty and trust that are very closely related to each other. The COVID-19 epidemic brought along many uncertainties both with its emergence, with the search for solutions, and with its social and economic consequences in the short term. The problem of how people, policymakers, and companies decide in uncertainties is one of the most important issues in economics. The world, governments, companies, and individuals living in the crisis experienced the uncertainty that emerged after the COVID-19 outbreak. Although uncertainty is in every area of life, it is not a likable situation in terms of economics. It is accepted that uncertainty creates some costs and causes inefficiency. Possible negative results caused by uncertainties especially in market economies are tried to be compensated by our second concept, trust. The more the institutions, the state, the firms, and the individuals trust each other, the more they reduce the uncertainty through repeated games and relationships.

[6] On these issues of institutional economics, you may check at Acemoğlu et al. papers in the bibliography.

This article first draws attention to the uncertainty issues that occur after COVID-19. These uncertainties include uncertainties regarding the spread of the COVID-19 outbreak as well as global governance uncertainties (Rodrik, 2000). Uncertainty in global production chains has been replaced by consumption uncertainty over time (Stiglitz, 2003). The deficiencies of a global governance mechanism that establishes global trust against all these uncertainties are emphasized. At the country level, the relationship of trust and insecurity between the state, government, and the individual became more visible after the COVID-19 outbreak. Firms' trust in each other in business passes a serious test through the COVID-19 crisis. In all this certainty and trust-seeking environment, the steps taken by policymakers to establish and strengthen trust both in their own countries and on a global scale will shape the future. Countries, companies, and even individuals that consolidate trust and confidence to reduce uncertainty are candidates for more sustainable success in the period after the COVID-19 outbreak. The concepts of uncertainty and trust in this study provide important clues to our efforts to understand and conceptualize the COVID-19 crisis. It is healthier to understand how the global world will be shaped in the future through these concepts. I hope this work will be beneficial in this direction.

References

Acemoğlu, D., Johnson, S., & Robinson, J. (2005). The Rise of Europe: Atlantic Trade, Institutional Change and Economic Growth. *American Economic Review,* 95, 3, 546–579.

Acemoğlu, D. ,& Johnson, S. (2003). Unbundling Institutions. *Journal of Political Economy*, 113 (5), 949–994.

Acemoğlu, D., Johnson, S., Robinson, J. A., & Taicharoen, Y. (2003). Institutional Causes, Macroeconomic Symptoms, Volatility, Crises and Growth. *Journal of Monetary Economics*, 89, 49-123.

Acemoğlu, D., Johnson, S., & Robinson, J. A. (2002). Reversal of Fortune: Geography & Institutions in The Making of the Modern World Income Distribution. *Quarterly Journal of Economics*, 117 (4), 1231–1294.

Acemoğlu, D., Johnson, S., & Robinson, J. A. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, 91 (5), 1369–401.

Acemoğlu, D., & Robinson, J. A. (2000). Why Did the West Extend the Franchise? Democracy, Inequality and Growth in Historical Perspective. *Quarterly Journal of Economics,* 115(4), 1167–1200.

Aysan, A. F., Babacan, M., Gur, N., Karahan, H. (2018). On the Path to High-Income Status or to Middle-Income Trap: The Turkish Economy in Search of Its Future. Aysan A., Babacan M., Gur N., Karahan H. (eds). *Turkish Economy* (p. 1-11). Palgrave Macmillan, Cham.

Aysan, A. F., Disli, M., & Ozturk, H. (2017). Bank Lending Channel in a Dual Banking System: Why Are Islamic Banks So Responsive?. *The World Economy*, Volume. 41, 3, 674-698.

Aysan, A. F., Disli, M. Duygun, M., & Ozturk, H. (2017). Religiosity vs. Rationality: Depositor Behavior in Islamic and Conventional Banks?. *Journal of Comparative Economics*, Volume 46, Issue 1, 1-19.

Aysan, A. F., Danis, H., & Ozturk, H. (2017). The Era Of New Central Banking: Challenges And Policy Experiences, Special Issue Of The Singapore Economic Review. *The Singapore Economic Review,* Vol. 62, No. 1, 1-5.

Aysan, A. F., Pang, G., & Veganzones-Varoudakis, M-A. (2009). Uncertainty, Economic Reforms and Private Investment in the Middle East and North Africa. *The Applied Economics,* Vol.41, 1379-1395.

Aysan, A. F., & Veganzones-Varoudakis, M-A. (2009). Do Political and Governance Institutions Matter for Private Investment Decisions?: The Case of the Middle East and North Africa. Economic Performance in the Middle East and North Africa: Institutions, Corruption and Reform, in S. Sayan. (eds.). London: Routledge-Curzon, 94-109.

Aysan, A. F., & Budak, M. S. B. (2009). Administrative Quality, Structural Reforms and Capital Accumulation in Developing Countries. Economics of Developing Countries in Tiago N. Caldeira. (ed.). New York: Nova, 79-104.

Aysan, A.F, Nabli M.K., & Veganzones-Varoudakis, M-A. (2007). Governance Institutions and Private Investment: An Application to the Middle East and North Africa. Developing Economies.

Aysan, A.F, Nabli M.K., & Silva-Jauregui, C. (2007). Political Authoritarianism, Credibility of Reforms and Private Sector Development in the Middle East and North Africa. *Revue d'économie du développement*, Vol.22, No.5, 5-36.

Aysan, A. F. (2008). Distributional Effects of Temporary Exchange Rate Based Stabilization Programs under Financial Frictions. *Indian Development Review*, Vol.6, No.2, 153-169.

Aysan, A. F. Ersoy, Z., & Veganzones-Varoudakis, M-A. (2007). What Types of Perceived Governance Indicators Matter the Most for Private Investment in Middle East and North Africa. *Economics Bulletin*, Vol. 5, No. 8, 1-16.

Aysan, A. F. (2007). Yönetişim ve Kurumlar Kavramlarının İktisat Literatüründeki Yükselişi Üzerine Bir Değerlendirme. *Uluslararası Ekonomi ve Dış Ticaret Politikaları*, Vol. 1, No. 2, 27-52.

Aysan, A. F., & Al, H. (2006). Assessing the Preconditions in Establishing an Independent Regulatory and Supervisory Agency in Globalized Financial Markets: The Case of Turkey. *International Journal of Applied Business and Economic Research*, 4, 2, 125-146.

Aysan, A. F. (2006). The Shadowing Role of Redistributive Institutions in the Relationship Between Income Inequality and Redistribution. *Araştırma Raporu*, ISS/EC 2006-13, İstanbul: Boğaziçi Üniversitesi.

Aysan, M. F. (2018). Between Risks and Opportunities: Social Policies in Contemporary Turkey. *Turkish Economy: Between Middle Income Trap and High Income Status* (ss. 101-120). Palgrave Macmillan, Cham.

Aysan, M. F. (2012a). Pension Regimes, Gender and Generational Inequalities: The Persistence of Institutional Differences in Aging Postindustrial Democracies. *Aging Populations in Post-Industrial Democracies,* (p. 106-126). London: Routledge.

Aysan, M. F. (2012b). Küreselleşme, Kriz ve Refah Devleti. *Küreyel Dönüşümler: Küreselleşme, Zihniyet, Siyaset,* (ss. 107-128). İstanbul: Küre Yayınları.

DeCambre, M. (2020). Chart of Wall Street's 'fear' index in 2020 illustrates how unhinged stock markets have been over coronavirus compared to the 2008 crisis. MarketWatch. https://www.marketwatch.com/story/this-chart-of-the-stock-markets-fear-index-in-2020-illustrates-how-unhinged-markets-have-been-over-coronavirus-compared-to-the-2008-crisis-2020-03-10

Financial Times. Vix 'fear gauge' in recovery from COVID-19 shock. https://www.ft.com/content/648d39fb-e9c9-4a31-b25b-1fd703be623e

FRED Economic Data. (2020). Economic Policy Uncertainty Index for the United States. https://fred.stlouisfed.org/series/USEPUINDXD

Fukuyama, F. (1995). Trust: The social virtues & the creation of prosperity. New York: Free Press.

Friedman, M. (1962). Capitalism and Freedom. Chicago: University of Chicago Press.

Greif, A. (1992). Institutions & International Trade: Lessons from the Commercial Revolution. *American Economic Review*, 82(2): 128-33.

Hayek, F. A. (1960). The Constitution of Liberty. London: Routledge and Kegan Paul.

North, D. C. (1990). Institutions, Institutional Change, and Economic Performance. Cambridge: Cambridge University Press.

Ortiz-Ospina, E. (2016). Trust and GDP. Our World in Data. https://ourworldindata.org/trust-and-gdp

Our World in Data. Share of People Agreeing with the Statement ''most people can be trusted'', 2014. https://ourworldindata.org/grapher/self-reported-trust-attitudes?tab=map

Our World in Data. OECD Average Trust in Governments, 2006 to 2014.

https://ourworldindata.org/grapher/oecd-average-trust-in-governments

Our World in Data. Share of People who think that ''most people can be trusted'', 1972 to 2014.

https://ourworldindata.org/grapher/trust-attitudes-in-the-us

Önis, Z., & A. F. Aysan, (2000). Neoliberal Globalization, the Nation State and Financial Crises in the Semi-Periphery: A Comparative Analysis. *Third World Quarterly*. 21: 119-139.

Rodrik, D. (2000). Institutions for High-Quality Growth: What They Are and How to Acquire Them. *Studies in Comparative International Development*, 35(3), 3-31.

Rodrik, D., Subramanian, A., ve Trebbi, F. (2002). Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development. Working Paper, No. 9305, Cambridge, Massachusetts: NBER.

Sachs, J. (2003). Institutions Don't Rule: A Refutation of Institutional Fundamentalism. Working Paper No. 9490, Cambridge, Massachusetts: NBER.

Stiglitz, J. E. (2003). Globalization and Its Discontents, New York: W. W. Norton & Company.



A New Concept of Economics and Finance in the New Normal Period

Mehmet Bulut

Prof. Mehmet Bulut

Professor Bulut, President of Istanbul Sabahattin Zaim University, completed his Ph.D. at Utrecht University in 2000. He became an Assistant Professor in 2001, Associate Professor in 2003 and Professor in 2008. Dr. Bulut became the founder Dean of Faculty of Political Sciences and Vice President at Yıldırım Beyazıt University in Ankara in 2011. He was chosen to serve at the Council of Higher Education (YÖK) as a Board Member in 2012. He has been studying in fields of long term (longue durée) economic development, reasons for intercountry economical differences, performance comparisons, international economy policy, Ottoman economics and civilization, Ottoman-European-Atlantic economic relations, history of economics, economic thinking, financial history, institutions, Islamic economics and finance. Dr. Bulut, a member of Turkish Academy of Science (TÜBA) since 2012, has been to Sweden/Dalarna, England/Cambridge and the USA/Harvard and Princeton Universities for his research and studies.

A New Concept of Economics and Finance in the New Normal Period[1]

Mehmet Bulut
İstanbul Sabahattin Zaim University
mehmet.bulut@izu.edu.tr

Abstract
Under the influence of the COVID-19 pandemic, the world got closed and the people fell into their homes. It is understood that we are on the eve of a significant change and transformation. It seems that nothing seems to be the same as in the past. Plague pandemic had an important effect on the emergence of modern capitalism in Europe. Moreover the modern capitalist system, which emerged again in Europe and with an outbreak of plague pandemic to America, had an important effect on the European's dominance of the transoceanic regions. Of course, viruses and pandemic alone did not provide this change and transformation. The accumulated energy in the system can be one of the most important factors that trigger great change with such outbreaks.

Today, it can be said that we are on the eve of a new change and transformation with the effect of many energies accumulated in the system. There are serious unsustainable imbalances in the world economy during the present times. COVID-19 appeared in such a period. On the one hand, there are those who consider COVID-19 as a pandemic created by mankind, and on the other hand, there are those who claim that we are in a new process of change and transformation with the effect of this pandemic. The author of these lines believes that we are already at an important point of change and transformation with the energy that the world economy and system has accumulated over the years, and he also considers that COVID-19 is one of the most important factors that will accelerate this change and transformation.

Keywords
COVID-19, pandemics, new economics, sustainable development, justice, morality, mercy

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Mankind has lived as nomad for a long time on the planet we are in. Approximately twelve thousand years ago, passed to settled life through training certain animals and starting to produce certain agricultural products. Along with this period, the interaction between the animals and humans increased and some viruses in animals started to also affect the human life. Along with the emergence and development of cities and urbanization, large outbreaks also led to significant deaths on human populations, particularly in crowded areas. Essentially, such outbreaks cause significant changes, transformations and developments in the economic and social field along with the human deaths. The number of people who died due to the coronavirus (COVID-19) epidemic (pandemic) we are experiencing today is increasing in all countries of the world. Along with this, in addition to the changes that have emerged in the economic and social life in a short time, we can state that we are on the eve of a significant structural change and transformation in the economic and social fields, particularly in the monetary and finance markets, trade, education and service industries (Şeker et al., 2020). Under the light of the experiences belonging to the past in this field, this study discusses the economic and social changes and transformations that have resulted from certain pandemics of the humanity history in the last two thousand years. Moreover, it provides suggestions in the context of cause and effect relation to overcome the problems experienced during the process we are in.

The nature started to recover as the mankind locked themselves in their homes due to the pandemic. The animals that did not appear in the cities before started to come to the cities with the COVID-19 pandemic. Due to the decrease in greenhouse gases released into the air, a tendency of reduce emerged in air pollution. The possibility of questioning the invasion of the nature by the mankind occurred and entered into a more peaceful process with the nature. It seems that new opportunities emerged in many respects with the global pandemic. One of them is the possibility found by the modern

people compared to the previous state, to question and revise themselves, their relationship with the environment and nature and also their relationship with the creator.

The most important difference of COVID-19 pandemic we are currently experiencing is that it affected everyone deeply without making rich-poor distinction. The subject will not to mean as exaggerated if it is said that no affected person, company or country left on the world. Along with the pandemic, all individuals locked themselves in their homes, companies closed their doors to their employees, passed to remote working (home-office) and so to say, the economy of the country stopped.

Without any doubted, COVID-19 pandemic is not the first pandemic experienced by the world. There have been other pandemics in the history, but COVID-19 pandemic taken its place in the history as a disease that affected all continents and countries of the world at the same time. For the first time since the world economic depression in 1929, a process that affects both developed and developing countries economically together without making a distinction between rich and poor is being experienced. With the great depression in 1929, world economies gave up liberal market practices and entered an era where the importance of the state began to increase through the fiscal policies implemented. After this big crisis, it marks the era when British John Maynard Keynes pioneered and the state's intervention in the economy increased, particularly the *New Deal* plans in the USA, and the private sector began to take its place. It is known that this process continued until 1970-80s. It can be said that the state started to withdraw itself from the economy as of the 1980s and the era when the private sector's way was paved continued until the 2020s. It is understood that, in general, with the effect of the COVID-19 pandemic, the expectations that the efficiency of the state in the economy started to increase again a hundred years later in association with the results of the First World War in 1920s, has increased. The most obvious discussions focus on the economic political and global economic actors and the change in the new centre.

General Economic Appearance on World

The recession too start in the world's economy before COVID-19 entered into a process where the recession, low productivity, drop in investments and recession trend increased. Accordingly, it is understood that nationalization trends in the economic field will increase along with the increase in the state interventions, particularly in the health industry, to eliminate such negativities. This process can be seen as a process where the countries with virtual richness of the finance industry will be affected more and deeper. In terms of investment, while the rich countries lost their attraction, the star of the rising economies, as well as the countries on the route of Silk Road may shine more. During this process, in terms of the effect of COVID-19 on the transportation and supply industries, starting from China, it is considered that the importance and share of the countries such as India, Pakistan, Central Asian Turkish Republics and

Turkey located on the route will increase along with the revitalization of the historical Silk Road.

Almost of countries of the world had recession in the first quarter of 2020. And it is obvious that the recession will continue in the following 3 quarters. It is clear that in 2020, the economy throughout the world will shrink and a process where the state and governments will be more effective in the economy will start to ensure vitality.

It seems that almost everyone agree the pandemic will increase the electronic commerce and digitalization in the economy. Likewise, it is very clear that the digitalization will increase in education, health and public services. Particularly in the service industry and transportation, it is obvious that serious losses will be experienced in some industries due to the long-term existence of the pandemic state. While a significant shrinkage emerged in the low-paid unqualified labour, it is expected that there will be an expansion in employment in the health, logistics, public transportation and food industries.

It is assumed that the state, which had to be effective in the economy during COVID-19 pandemic, will continue this after the pandemic, too. The governments and central banks will have to actualize more radical measures in the finance and monetary areas. The steps taken by some countries during the pandemic point out this. For example, the private hospitals in Spain go towards nationalization process. France and Portugal started to commission state enterprises in certain fields of business instead of private sector. The governments in United Kingdom and Denmark focused on making payments to the workers without going to work, but as to avoid their dismissal. It is understood that both with the short-time working allowance and particularly the city hospitals in the area of health in Turkey, the government will improve its effect in certain areas. This should be addressed within the framework of a social state approach rather than a statism process. In other words, this era points out to an era where, rather than statism, the state will have more effective role in the economy by considering the economic balances within the country. The discussions on whether this process will be short or long are carried out within the framework of the countries' achievement to control the pandemic. On the other hand, regardless from the pandemic, there is an economic and financial system criticism increasingly continuing as of the global finance crisis in 2008. It seems that COVID-19 pandemic allowed these discussions to be carried out more loudly.

Trade Wars under COVID-19 Pandemic

The competition and trade wars of old started between China-USA may gain new dimensions in the following period with the statements on loading certain costs to someone under COVID-19. One of the subjects of curiosity is at which level will this affect the transition to a Chinese centred global economy from USA centred world economy.

When their historical experiences are taken into consideration, it is understood that Chinese are ready to compete. When the macro data presented in the tables of the study are considered, there is a case to the detriment of USA and for the benefit of China in the trade balance between the China in the East and USA in the West. Although it is hard to say a certain thing now, it won't be wrong to foresee that the competition between two countries will develop for the benefit of China with the Silk Road project (Bulut, 2013).

In addition to the trade wars and competition between USA-China, the effect of the debt depression of Europe due to the COVID-19 pandemic following the global finance crisis in 2008 and the partial dispersion process experienced by continental Europe with *Brexit* will increasingly reflect to the markets and economy.

It is another subject of discussion whether China or India will come to the fore in the balances to be newly established within the fact that centre of the world's economy will slide from west to the east after COVID-19. With the impact of the trade war entered with USA before COVID-19, China encountered the lowest growth rate of last thirty years. Although China was expected to actualize a growth rate at a certain level compared to the other countries, a very serious drop and recession, so to say a crisis process started as of the beginning of 2020 in terms of production, trade and economy in China due to the pandemic. This cost may increase with the new invoice to be issued in the trade wars. In this sense, it can be said that India is in a faster recovery trend compared to China. India is evaluated as one of the rare countries that will be able to catch positive rate in economic growth in 2020. However, it shows that it is very early for the process-related analysis since the pandemic is still effective on the world and continues to spread.

When it is considered that the citizens of rich Western countries in general and the USA citizens in particular will vote for the continuation of the accustomed consumption culture and welfare, it will be the most natural thing to expect them to continue their relations with China and import cheap products from China. In this sense, it should also be taken into consideration that the wills of both of the parties to improve the cooperation will strengthen and accordingly, affirmative results can be expected for both of the parties. However, how sustainable is a system that consumes more than produced and finances this with debt is the subject of a serious discussion.

Wealth Dependent to Debt and External Support

There is no doubt that we are in the eve of important changes in respect of the world's economic balances. If passed to a new economic order with these changes, it is expected that the centre of gravity of the world's economy will slide from West to East, from USA to China, that China, which got ahead of USA in terms of gross domestic product per the purchasing power, will go ahead in terms of nominal GDP in the near future and that it will be the greatest economy of the world. Although COVID-19 occurred in China first,

it is now understood that it has taken the Western developed countries under its impact more, the deaths progressed at higher rates more in developed countries and its economic effects will be more in the rich West than East.

Table 1. Top 10 Countries of World for GNP ($ Trillion) (2019)

Order	Country	GNP (Nominal)	GN (Purchasing power)
1	USA	21.44	21.44
2	China	14.14	27.31
3	Japan	5.15	5.75
4	Germany	3.86	4.44
5	India	2.94	10.51
6	United Kingdom	2.83	3.04
7	France	2.71	2.96
8	Italy	1.99	2.40
9	Brazil	1.85	3.37
10	Canada	1.73	1.84

According to the nominal calculations, China is ranked second after USA in GDP, however it is the greatest economy of the world according to the purchasing power and the most crowded country of the world in terms of population. As can be seen in Table 2, although Japan is more ahead according to GDP, the total debt of USA is more than its GDP and so it is the most indebted country of the world. It can be understood from here that USA has an economy that consumes more than it produces.

According to the data reported by IMF, Japan is ranked first in the list of world's most debtor countries, and from Europe, Greece, Portugal, Spain and United Kingdom take the attention with high debts compared to GDP. Furthermore, among Islam countries, Egypt is ranked as the most debtor Islam country in the list, and it is an attractive case that USA, the greatest economy of the world, has a debt more than it produced.

According to the current prices, the world's greatest economy as of the end of year 2019 is USA with $21.4 trillion, against this, China is the second with $14.4 trillion, however according to the purchasing power, China is ranked first with $27.3 trillion and USA as second with $21.4 trillion.

While the world's gross national production is $84 trillion according to the nominal current prices, the total debt of the countries is approximately $255 trillion. On the other hand, against the reel economy, the monetary and financial area reached an amount that is ten times of this. The most important concern of today's world economy is the approach and practice on debiting, and consuming and spending more than produced by printing money without any provision.

Table 2. Most debted Countries of World (2019)

Order	Country	Ratio of Country's Debt to GDP
1.	Japan	237.54%
2.	Greece	174.15%
3.	Italy	133.43%
4.	Portugal	119.46%
5.	USA	106.70%
6.	Spain	95.96%
7.	Brazil	90.36%
8.	Canada	88.01%
9.	Egypt	86.93%
10.	United Kingdom	85.67%

According to these data, the most debtor countries of the world are the most developed countries. The most debtor country is Japan according to the gross domestic production. In addition to this, USA has the highest external debt. Afterwards, the countries with the highest external debt are the countries that are within the top greatest developed economies of the world such as Europe's United Kingdom, Germany, France, Italy and Spain. According to these data, it is understood that the greatest countries of today's economies of the world are the countries that consume more than they produce and realize this by debiting. This is an unsustainable case. For this reason, the humanity needs a new and sustainable economic approach and vision that is in peace with the society and environment.

As can be seen in the above tables, the important economies of Europe are in a debt crisis. Furthermore, the uncertainty revealed from the process of segregation of United Kingdom from the European Union seems to deepen the uncertainties in the economy along with COVID-19 pandemic.

The star of the health and insurance industries will shine in the following period. The future of the industries that use internet networks, such as information technologies, e-commerce, video and teleconference services seems well. Positive developments are expected in the cargo and logistics industry. The recovery of the air transportation and tourism industries will take time. The inertia in the petroleum, construction and architecture industries will continue for a while after the pandemic.

Table 3. Top 10 Economies of World in 2030 (Forecast per purchasing power)

Order	Country	2030 GDP ($ trillion)
1	China	64.2
2	India	46.3
3	USA	31.0
4	Indonesia	10.1
5	Turkey	9.1
6	Brazil	8.6
7	Egypt	8.2
8	Russia	7.9
9	Japan	7.2
10	Germany	6.9

Opportunities in New Period for Turkey

Each country closely feels the economical effects of COVID-19 pandemic process we experience. Like in the other countries, Turkey will also feel this effect intensively deeper in the following days. However, each crisis is also an opportunity. When it is considered within this frame, with the measures to be taken and some precautions to be actualized in Turkey may be an opportunity to overcome this crisis with the least damage, and even to convert the crisis into an advantage at a certain scale.

The importance of the supply centres and the closeness of these centres revealed once again with COVID-19 process. Europe and USA were previously realizing the production of many products in China. At this point, both in terms of supply and production, it is a possibility that Europe and USA based companies may prefer Turkey instead of China. Therefore, Turkey will catch an important advantage through the rapid action of both the private sector and the public sector, quick steps to be taken through the detecting which areas have such potential. Turkey must use its supply, logistics and transportation advantages with its production opportunities depending on the labour costs emerged particularly in terms of Europe during this process. If, due to the geographical location of Turkey, it well-considers the infrastructure it has in terms of road, sea, air and railway at this point, it will be an important point of preference for many manufacturing companies leaving China, and important opportunities will reveal in terms of logistics, supply and transportation, particularly for the production and employment expansion in certain industries.

Serious profit advantages may be obtained if Europe focuses on Turkey concerning textile, ready-wear and leather industries in particular, where

the cotton dependence to China and Far East countries is less. At this point, with the export to be made to Europe following the production to be realized on the products with high added value particularly by small- and medium-sized companies will present a significant contribution in eliminating both the employment and the foreign trade deficit. In respect of the long-term economic targets, Turkey will catch important advantages if it takes the required measures and actualizes the appropriate policies with a coordinated approach within public-private cooperation in all economic areas, particularly in the industries it has competition superiority. However, it should be known that more is expected from Turkey both in the regional and global scale. Turkey is one of the countries that spends the maximum effort to find sincere solutions to the regional and global destructive concerns, particularly for the crisis encountered and experienced in the close geography. This process brought the sharing, solidarity and cooperation to the agenda again. During COVID-19 pandemic, Turkey realized medical material and health aid to many countries of the world, to USA in particular, and made an entry to the history. These supports and aids will constitute a mean for many positive developments of tomorrow's Turkey.

COVID-19 process increased the investment demands to the finance without interest and to valuable and reliable commodities such as gold. The geographical location and historical experience of Turkey, as well as its knowledge in Islamic finance, made it one of the most reliable ports during the COVID-19 process. Through the transferring of the Ottoman monetary associations and finance experience to today, Turkey will be one of the pioneer countries in this respect.

A New Economic Vision and System for the Whole World

In the Medieval, the construction of a system basing on a new economic and civilization vision, which has alienated God from the life due to the God centred system and the effect of the plague pandemic, said "man is a wolf to man (homo homini lupus)", defined the man as "economic man" *(homoeconomicus)* in terms of a creature only running after his interests, and saw the universe as a venue that must be controlled, took start (Bulut, 2015). This European centred system not only took the other continents of the world under its influence, but also completely took under control physically through the colonialism activities. The first central power of this system was Netherlands, then United Kingdom, and finally USA.

In the last century, the mankind encountered two world wars. Serious crisis encountered in the world economic order that has been established as USA origin as the winner of both wars. This crisis got accelerated after 1970s. The current total reel production of all countries in the world is $84 trillion. Against this, the total debt of the world countries is $250 trillion. The size of the finance and monetary markets in the world reached at least 10 times

of the reel commodity and service market. The point arrived by the new capitalist system, which has been constructed with the international system and institutions established under the lead of USA particularly after the 2nd World War, in 2020 notifies a serious crisis. Despite the Asian crisis 1997, USA crisis 2008, and the latter crisis in the European countries notified the danger, this danger reached a serious level along with COVID-19. The printing of the USA dollar, which was printed according to the gold until 1970s, regardless from the gold following the petroleum crisis is one of the fundamental reasons of the financial balloons - the greatest reason of the crisis. Furthermore, since the period when the decision makers located in the core of the system started to make decision alone, the balance between the monetary and finance markets and the commodity and service markets in the world is corrupted day after day. Today, the most important concern of the world's economy is the disconnection of the relation between the reel production and financial industry. The persons, companies and states have debts that are more than they produce and own. They have generated this debt with the money printed without any provision. From now on, the capitalist system must find a way of cheap debiting to such persons, companies and states. This time, the solution seems not that easy. In this regards, we are facing an unsustainable case in the system and probably approaching to the end. Therefore, instead of this conventional modern economic system, there is a need for a new balanced and sustainable economic and financial system.

On the other side, we are facing a serious case that is surrounded with nature and environment, lands and seas and threatening the humanity. While a continuous welfare increase is in question in certain regions on the world, the number of people losing their lives due to hunger in some regions is increasing day by day. Besides the economical imbalances in the world, the lives of hundreds of people are ending on each day due to fights and wars. So then, when the concern is taken into consideration with a more general approach, the economic mentality and legal order seem like problems. The economy and laws of the power are being the determinants, and the concerns and imbalances on the world are increasing day by day. Beyond this, the moral concerns are coming to the agenda. As a result of all these, the distrust of the man to the man and the system dominant on the world is revealing as the most important result in front of us. At this point, may the new hope of the humanity, the sliding of the centre from west to the east, be a way of exit? Or will China or East cherish the hopes? It is understood that China is also approaching a development model following the dominant Western modern "*homoeconomicus*" paradigm. So, there is no doubt that there is a need for a new way and a new economic paradigm.

The need of the humanity for the knowledge on the economical area in different geographies and civilization basins seems like more important today than yesterday. Everyone is aware of the world's economic and financial concerns increasing day by day. As it is expressed above, an economic approach, which basis on the consumption culture and consumes everything, particularly the

environment, natural resources and human, in an uncontrolled manner, and above all, spending the values, is in question in today's world. While the dominance of "*homoeconomicus*"- "economic man" centred approach and paradigm, which ignores the balance when manufacturing and consumes the resources excessively and in an imbalanced manner, and almost finds the right in himself to define all creatures and resources as he wants, is in question, on the other hand, there is a vision to be entitled to consume more than produced. The richest countries of the world are now the most debtor countries. This approach and process generated an unsustainable economic system. The pandemic uncovered this rather more and showed that the virtual wealth can be destroyed with a virus. The humanity must not be left to the mercy of an unfair economic system that is not possible to be maintained.

The economic and financial crisis, wars, internal conflicts, exploitation, cyber attacks, hunger, invasions, environmental pollution, health concerns, immigrations, sharing and distribution-related income imbalances indicate that the whole world needs a new vision of economic thought. On one side, the countries, communities, persons getting richer, on the other side, the economic and social concerns experienced by millions of people in certain geographies, particularly in Africa, the increase in the number of people losing their lives due to hunger are important indicators of the unfair income distribution. The necessity to change the global order imposed compulsorily by the developed countries that do not take any responsibility for millions of people who lost their lives and took to the roads as refugees as a result of internal conflicts and for these people and do sentence them to a kind of death started to be mentioned by more and more people now. Briefly, the realities that burn the conscientious hearths are increasing. All these reveal that something is going wrong and that it is necessary to review the "modern economy" approach and paradigm. *Homoeconomicus*'s human and community related priorities, the legal and moral foundations, if any, of the modern economy and finance systems must be re-created.

Along with COVID-19 process, all individual, companies and countries had to face with these realities once again. In fact, this COVID-19 pandemic said "it won't continue in this way" to everyone and every section, and indicated the need to a new economic approach and order with a new economic vision.

Despite all these negativities in the world, there are many reasons for being hopeful. Particularly in areas such as economy, a recent increase in the researches and discussions on these subjects at some universities both in the west and east and at certain thought institutions can be mentioned. The conscientious economists, science and opinion-men, thinkers, social scientists progressively deepening their researches, publishing articles, presenting declarations during the congresses and expressing their opinions on these with a louder voice.

Despite the "new quests and insights" related efforts in this modern economic and financial area, it is not yet possible to say that these voices are heard by fully effective and competent persons, centres and powers. However, the meaningful effort and calls of the centres recently focusing on the subject give hope. Everyone carrying a responsible head on his shoulders in the world due to his nature, and every organization within its potential have a duty concerning this subject. At this point, the conscientious voices rising both from the East and from the West are like-minded on a "sustainable economic" development model basing on balance. This approach cares the effective use of human centred environment-friendly resources within a balanced approach. The concern related to this subject cannot be solved by the sliding of the world's economic and financial centre from West (USA and Europe) to the East (China). Because, it is not possible to say that the development model under the lead of China, instead USA, is basing on a "sustainable development model". At this point, it is without any doubt that primarily the thinkers, intellectuals, scientists, institutions and universities at the place of responsibility particularly in the Islamic world have duties.

It is understood that the explanation and understanding of the knowledge regarding the Islamic economy and finance, in particular, is a requisite to rescue not only the Islam world, but also the whole world from the current deep crisis, and to establish a liveable world. In order to take the road from somewhere and to construct a new economic and financial approach, it is obvious that, in addition to understand the occurrence of the modern economic and financial approach and its adventure on taking the whole world under its influence, discovering the Ottoman experience, which has a significant place in the Islam economy and finance tradition and is the contemporary in this area in the Islam world of modern times, has a separate importance. Without any doubt, in respect of the responsibility at the point of revealing this heritage, the ones who are the most important heirs of the Ottomans are very obvious. In addition to the Ottoman geography and the accumulation in the basin of civilization, it is not necessary to emphasize the importance of the experiences of the Islam geography in the Eastern and Western Asia, Africa and Western geography. Here, there is a need for constructing a new economy paradigm with a moral and law based "balanced and sustainable" approach by basing on the knowledge of our era under the light of the historical experience.

Conclusion and General Evaluation

Economics is a branch of social science that examines the relationship between the needs and resources of the people and community. When switched from micro to macro analysis, the most important subject becomes the economic growth and development. There is no single development model in economic development. The economic development and differentiations have tried to be explained by market (Smith), qualified population (Clark), institutional approach (Veblen, North), exploitation (Marks), and modern growth theories (Solow). The new economy paradigm should base on the supply of goods and

services that will meet the needs of the community, and the realization of the production with the least resources by taking the blessing-burden balance into consideration.

As a result, it is the fundamental objective to actualize an economic model in compliance with itself by establishing a game that will be converted into production on a basis where everyone acts "in the efficient manner" (the performance of the work in the best manner by everyone) in the game by using the effort, capital, natural resources, enterprises and other sources, which are owned by each community equal to their own system of values, definition of civilization, geography and historical realities, in the most effective and efficient manner. And in the new period, it is essential to realize this by basing on our human-centred, rights law, morals and fundamental civilization values. In this respect, Turkey has an advantage in the areas such as young population, geography, history and energy corridor.

By taking all these advantages into consideration, it is necessary to, in addition to concrete issues such as specialization in certain areas, as well as increasing R&D activities, take institutional steps such as the inclusion of all segments of the community in the game of economic development and improvement on the basis of ensuring state-community cohesion. On the basis of this knowledge, the actualization of an economical development model basing on the values and world-view of the community must be one of the primary subjects.

The most important advantage of Turkey is its young population. The qualification of this population should be the most important objective. A good education model in terms of both moral and vocational professional education formation is necessary in this respect. With this model, the economical future of Turkey that will have an employed young population that is more than the employed young population of Europe's top 5 economic powers of today is seemed very bright in 2050. The most important issue is raising a balanced, consistent, productive, qualified and of good quality youth in terms of morality, right, law, and altruism. In the future, Turkey must realize the specialization in certain areas, and Turkey's economical infrastructure that is basing on R&D studies and pioneer in certain areas and industries must be established. In the new period, by using all potential of the era, an economical coordination is required in the basis of priorities along with qualified education.

COVID-19 presented an important opportunity to everyone in various respects in terms of thinking everything again. The micro-organisms (virus-microbe), which have become more active following the transition of the humankind to settled life, have transformed into pandemic in certain eras of the history, caused large sized population losses and consequently, caused important economic and social changes. It is understood that throughout the history, some civilization geographies intentionally or unintentionally reveal their fatal powers, which will destroy them and also the remaining part of the world, by their own hands. The diseases that occurred as a result of contact with animals

in certain periods of history seem like in certain periods, appeared as being related to the limitlessness and impermanence of the so-called human and being directed towards the process of preparing its end. Against the pandemic diseases that were spread previously more slowly and within wider times from country to country and region to region, mostly by trade and seaway, during this process in the first months of 2020, (COVID-19) microbe occurred in China reached almost all countries of the world in a very short time. Viruses can be transmitted at the same speed in our era of globalization, pleasure and speed. The certain pandemics in the history caused major transformations and significant structural, economic, social and political changes. Everyone states that nothing will be the same again on the planet we live with this COVID-19. However, this is the acceleration of the process for the global system that is actually at the dawn of the transformation. Plague and smallpox microbes are among the most determining factors in the emergence of the mercantilist (trade capitalism) period and the occurrence of modern European centred nation states between 1450-1750. In addition to the other factors, the microbes again had important effect on the formation and development of the industrial capitalism within the framework of the liberal approach based market mechanism in period 1750-1930. The Keynesian economics that raised the increasing importance of the state in the period of 1930-1980 continued from the 1980s as of the withdrawal of the state from the market until the 2020s where the new classical economy approach with private sector more effective is a dominant general paradigm. In the new period, the weight of the state in the economy will increase gradually, and rather than globalization, the introversive national approaches will come to the fore. In addition to these, the strategic industries such as agriculture and food safety will become more and more important. There will be a need for stronger infrastructures and more qualified brains in the field of health. Along with some other industries, the importance of the remote education will increase gradually with the electronic system as the most important structural change, and computerized working systems at home will replace the physical face-to-face education and research. It can be said that we are on the eve of a significant change in the monetary and credit markets. It seems that the money invented by the Lydian in Anatolia and the banking and financial system being institutionalized and developed by the modern Europeans since the 16th century will be replaced by digital system at a significant rate, but not completely.

Another phenomenon that will come to the agenda along with this process revealed as a need for a new economic growth and development paradigm. Because the idea of the dominant economic paradigm created by the modern world is basing on the limitedness of the resources on the earth, but the limitlessness of human needs. However, the needs of people may be limited, and their desires and wishes may be unlimited. The modern man acting from this understanding thought that as he consumed, he reached more pleasure and joy and happiness. More consumption means more production, thus means the excessive use of resources and damage and abuse of the environment and nature. As a result of this problematic economic paradigm, earth, water

and air are contaminated. The lands and seas are filled with garbage and industrial wastes. A new one is added to the millions of people who die due to terrorism and starvation on earth on each day. It is obvious that this process will begin to be questioned more with COVID-19. Hereinafter, there is a need for a more sharing, comprehensive, solidarist and more balanced "sustainable development" model. At this point, with an approach basing on sharing, solidarity and cooperation through recognizing an approach surrounding all segments of the community, an economic approach that is requiring the protection and preservation of all living and non-living creatures, not only the human and the humanity, and asking the best of everything for everyone. The truth revealed by COVID-19 pandemic process is that the most prioritized point of all responsible individuals, institutions and countries is the necessity to actualize a balanced and "sustainable" economic and social development model basing on the careful protection of the ecological environment and nature with an approach of asking the best for the entire humanity within mercy, justice and morality and protecting the world of animals and plants (flora and fauna).

References

Bulut, M. (2013). Türkiye'nin Dünya Ekonomisindeki Yeri ve Geleceği. ADAM *AKADEMİ Sosyal Bilimler Dergisi, 3*(2), 53-62.

Bulut, M. (2015). Ahlak ve İktisat. ADAM *AKADEMİ Sosyal Bilimler Dergisi, 5*(2), 105-123.

Clark, J. B. (1908). *The distribution of wealth: a theory of wages, interest and profits.* Macmillan.

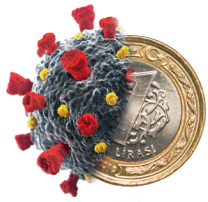
North, D. C. (1991). Institutions. *Journal of economic perspectives, 5*(1), 97-112.

Smith, A. (2010). *The Wealth of Nations: An inquiry into the nature and causes of the Wealth of Nations*. Harriman House Limited.

Solow, R. M. (1957). Technical change and the aggregate production function. *The review of Economics and Statistics, 39*(3) 312-320.

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). COVID-19 Küresel Salgın Değerlendirme Raporu. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34.

Veblen, T. (2005). *The theory of the leisure class: An economic study of institutions*. Aakar Books.



The Economic and Financial Opportunities for Turkey in the Post-pandemic Period

Cem Korkut

Cem Korkut, Ph.D.
Cem Korkut, Ph.D. is Assistant Professor at the Department of Economics of Ankara Yildirim Beyazit University (AYBU). He is also the advisor to the President at the Turkish Academy of Sciences (TUBA). He graduated from TOBB University of Economics and Technology, where he entered with a full scholarship, as a high honor student in 2011. He completed his MA in Economics at AYBU in 2014. He studied Ottoman cash waqfs (pioneer of current Islamic/interest-free financial institutions) in his MA thesis. He completed his Ph.D. at Istanbul Sabahattin Zaim University (IZU) with a thesis on capital formation, accumulation, and structure in Islamic economics in 2018. Having national and international papers and book chapters on topics such as Islamic economics, Islamic banking and finance, and cash waqfs, Dr. Korkut is an active member of the Ankara Center for Thought and Research (ADAM) and executive of Islamic Economics School. His main academic interests are Islamic Economics, Islamic Banking and Finance, Macroeconomic Policies, World Economy in the Longue Durée, Ottoman Economic History and Economic Development Paradigms of Different Societies.

The Economic and Financial Opportunities for Turkey in the Post-pandemic Period[1]

Cem Korkut
Ankara Yıldırım Beyazıt University
ckorkut@ybu.edu.tr

Abstract
COVID-19 pandemic causes radical changes all over the world. The economical, financial and commercial change and transformation caused by the pandemic will continue in the post-pandemic period. These changes and transformations include risks and threats for countries, as well as alternatives and opportunities according to the characteristics of each country. This situation has given new opportunities for growth and development to developing countries like Turkey in the post-pandemic period. Turkey has been in the efforts of catching its potential in economic and financial aspects for a long time. But the COVID-19 global outbreak brought a new era all over the world. This era has new challenges for all countries.Turkey has to face this challenge and should produce optimal solutions.

In this study, the economic and financial opportunities in front of Turkey in the aftermath of the global epidemic will be discussed as general characteristics. There will be recommendations for economic policies to be followed in the new period for Turkey.

Keywords
post-pandemic period, economy in new normal period, economic and financial policies of Turkey, economic cooperation, Islamic finance and opportunities, trade diversification, domestic and national production

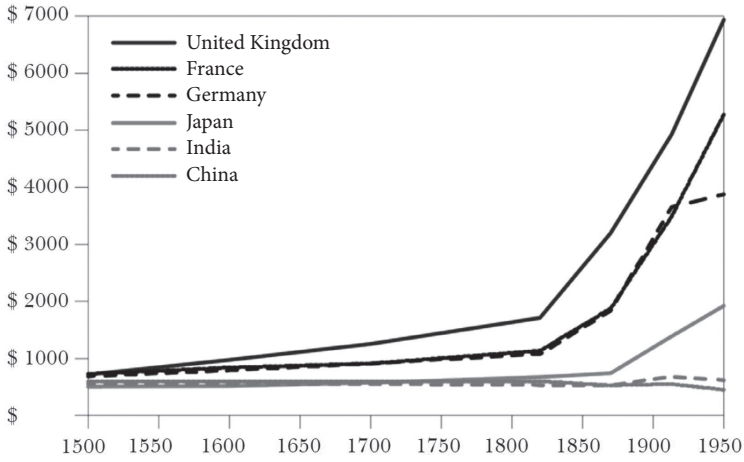
[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The progress of the world is changing; we are experiencing the pains of a period in which very few elites who hold power, rule countries, societies, and the global economy, where societies, in other words, the majority, decide their destiny and have a say in the system. We are at a time when the world is trying to flow again in its bed. In this period, the importance of geographies, trade routes, and countries that have been the center of the economy for centuries is increasing. While this creates a threat perception for some, others see this as an opportunity. The West that had established its hegemony over the economic, political, social, and cultural world in the last 200 years, is no longer as sure as it was before. In front of the West, there is an East that has self-confidence again as it grew and developed. The ambition of the East, particularly China and India, to gain strength from the ancient civilization traditions and who are catching up from 200 years behind raises the hopes of these countries for the future. The East that we will define as the Middle East, Central Asia, South Asia, and the Far East, and in some places North Africa, seems to be seriously challenging the current economic system.

The quiescence of the Silk Road and the trade routes of the East in general and the rise of Europe, in other words, the West, have been defined as the rise of the West, decline of the rest in the Western thought system (Chirot, 1985; Hall, 1986). This divergence is better seen in Graphic 1.

Graphic 1. The change of countries' per capita GDP during the historical process



Source: *Vries (2013: 318)*

When we come to this day, in other words to the 20th and 21st centuries from the historical process, it is seen that the Silk Road could not be realized at the desired efficiency due to the structure of the relations between the states. However, recent developments have started to take place to enable this region to naturally gain its former importance. This road where civilizations were born and not only commercial commodities, but also cultures, religions, ideas, and all societies were carried socially, culturally and economically provided the recognition of the wealth of eastern civilization by the western civilization. While this geography returned to its previous power again among the world's economic giant China and one of the world's greatest market Europe, Turkey is one of the important actors in rising again with its role in the historical process, due to its strategic location and natural closeness with the countries in the region. It is clear that the West that has damaged its prestige due to the 2008 economic crisis and whose economic and humanitarian effectiveness has been questioned after the last pandemic will take steps for the new period to ensure the dignity it has lost. Despite the economic power it has gained in the last period, it seems very difficult for China to overcome its image of being a country where the pandemic began. This case opens an important development area for Turkey during this process with its location, historical connections, demographic characteristics, and production potential.

Turkey, which acted as a bridge for centuries due to its location between the West (Europe) that is aging, but tries to protect its economic power and the East (China, India, etc.) that uses its population as an economic power and found the change to benefit not only from the transported commodities with economic value but also the cultural accumulations, will be ranked at the top of the countries to be well affected along with the regaining of importance by this route. The new period after the epidemic seems to have created the potential to multiply this effect.

Being a corridor between developed countries and developing countries, Turkey is exposed to economic and social effects of the economic power-axis shifts being experienced in the world. Having the chance of blending the accumulations of Western civilization with the borders to which the succeeding ancient Ottoman Empire reached in Europe and the Eastern civilization in terms of its location and religious sense, Turkey has an economic and political potential sensitive to the development of both two axes. In the last 20 years, Turkey started to collect the fruits of complete development and of investments made from health to infrastructure, from economy to finance during this process, and due to this fact these developments became the secret of Turkey's success in the pandemic process and these facts allowed Turkey to be mentioned as one of the countries having a high potential of development in the post-pandemic period. At this point, to understand the potential and opportunities in the following period, it is necessary to focus on the power-axis shift discussions that are on the agenda for a long time.

Discussions on Power-Axis Shift

Hobson (2004) claims that Eastern civilization was more developed than Western civilization between 500-1800. He emphasizes that Africa, the Middle East, and the Far East have a share in the development of Western civilization and its success today. Likewise, Sezgin (1967 & 2007) presented works showing how the science and technology heritage owned by Islamic civilizations in history affected the world today. However, it is a well-known fact that Eurocentric literature has been created while the world economic history was written. This history reading sees the developments shaping world history as Western (European) centered. On the other hand, Gürsakal & Kaya (2013) says that in this historiography, it is necessary to consider the obligations brought by the conditions of the era and that the conditions of the era improved this historiography. This view can be partially acceptable. Because of the enrichment brought by mercantilism in the 18th century, then the industrial revolution in the 19th century and the technological revolutions in the 20th century, it can be said that the West took the lead in this phase and the economic power axis of the world shifted to the Euro-North America, in other words, the Atlantic region, that we would call the north-west. However, after a while, this literature has been dictated to other societies through being clinched by the opinion that a certain system was imposed systematically and a region or society, compared to the other societies, had superior features such as being more civilized, more modern, etc. In the 21st century, current developments and projections show that global economic power has/will be shifted to the Asia-Pacific axis. This also means that the power axis shifts from developed (Western) countries to developing (Eastern) countries.

During the recovery period of Europe after the Second World War, the reinforcement of the economic power of the USA has made the Atlantic region the economic and political power area of the world. The fact that production,

trade, and capacity power are in the hands of Western countries that we call developed countries enabled these countries to become the dominant economic centers in the world in the 20th century. But the 1929 depression, which is one of the first crisis where the capitalist system was shaken, and the 1973 recession, which shook the prestige of the West, and finally the global financial crisis in 2008 have been the indicators that different economic power centers may also occur in the world. The impact of the economic collapse resulted from the pandemic, which started in December 2019 in China and spread to Europe and America continents as of March 2020, is still cannot be fully analyzed.

The opinion that the UK's Prime Minister Margaret Thatcher's "there is no alternative - TINA)" slogan and Fukuyama's (1992) *end of the world* thesis have collapsed and capitalism, in other words, the market economy, has no competitor and alternative in the world has shaken particularly with the 2008 global crisis. The consumption-oriented economic system revealed by globalization has evolved from the consumer-oriented economic systems to the production-oriented economic system of the developing countries, the share of these countries among the gross domestic product in the world has increased during this process and in their future-related predictions, and the predictions foreseeing they will pass the developed countries have been made. Particularly the low production power costs in Asia and the density of the population indicate an Asia-Pacific centered power axis shift in production. The geographical change of industrial production reveals the validity of Frank's (1998) *again east* thesis as the production of high-technology products also shifts to this region.

With the shift of production to the Asia-Pacific region so-called south-east, this region also attacked in terms of capital accumulation and savings. Furthermore, the consumption trends of the south-eastern region where the population density is high and the proportion of the young population is high are other factors that keep the economy of the Asia-Pacific region alive due to the stagnation of the consumption of the aging West. New urban structuring in developing countries, growth in purchasing power, a general increase in consumption in the world due to globalization are one of the main reasons for making projections that developing countries will, in the long-term, pass the developed countries that we call north-west in terms of economic size. In addition to this, countries that we call north-west have become more susceptible to crises due to the shift from the production dependency of the economic systems of countries we call north-west to the financial industry, thereby the economic and financial vulnerabilities of these countries increased. The high indebtedness of public and private sectors is another factor that supports this. The fact that energy and natural resources that are a production factor are high in Asia and the increasing need of energy of developing countries over time, but the excess demand and insufficient supply against this will, in the long term, positively affect the development and improvement of regions where these resources are more intense. In addition to this, the saturation

point provided by the economic size obtained by developed countries has limited the growth potential of these countries in some way. However, the aggressive growth demands of the developing countries and their potential overlap with the convergence thesis of Solow (1956).

So, as the causes of economic power shift, the follows can be listed; (1) the shift of production power capacity from developed western countries to developing Asia-Pacific centered eastern countries, (2) the limitation of the saving capacity of world's developed countries we call north-west, the realization of saving accumulations in the world now as Asia-Pacific centered, (3) the limitation of the developed Western countries' consumptions due to demographic and other reasons, (4) rising debiting-indebting level in general in the developed countries and high financialization rate, (5) the energy demand increasing according to the growth and production increase of the countries and the localization of the countries having this demand in the region we call south-east and (6) the limitation of the growth potential arising from the saturation level reached by the developed countries (SAE, 2009: 3-4). The fact that the reflex of responding to the pandemic is quite slow in developed countries is one of the developments that cause the questioning of the power of the West in the last period.

Another discussion brought by the shift in power in the last period is that after the cold war, a bipolar structure has been formed again in the world. Because of the basic economic theses on which the USA and Europe (West), in other words, developed countries, can be listed as the market economy (capitalism & liberalism), free trade, and institutional regulations. But now, as an alternative, economic attempts and regulations are under the leadership of the state in countries that are on the axis of power shifting from the Atlantic region to the East. Many regulations such as industrial strategies, R&D supports, and market interventions are carried out by the states as pioneers. These developments show that not only the regions but also the systems are structurally encountered. In the bipolar world after the Second World War, while Europe was an arena where the USA and Russia were competing for their political powers besides their economical powers, now due to the shift of economic power to the east, the Middle East and Eurasia witness this. The aim is no longer the spread of economic and political ideologies such as communism or the free market, but to capture geographies, trade routes, geopolitical, geoeconomic points or areas of influence in the world where there are energy resources. Although the conflicts that were experienced after the Arab Spring are realizing at the political and military level, the locations of these countries and their natural resources reveal that the main reason is economic. Furthermore, the fact that these developments are not like very hard and rigid polarizations experienced after the cold war, and that economic and commercial cooperation can be performed between the two power balances indicate that the competition will now be economy based. In this period of increasing military tensions spread throughout the world in the cold war period and the armament competition, the economic competition experienced, the military conflicts were experienced

in Eurasia (Caucasus, Gulf, Middle East, etc. regions) that can be considered much as geopolitical centers (SAE, 2009: 6). Conflicts are usually among the legitimate governments chosen by the will of the people and military forces under the influence of great powers who mostly do not want to lose their effectiveness in the geography.

The cautious view related to this power shift belongs to Vries (2013). Vries thinks that entered into a Neo-Malthusian world. For this reason, he claims that growth in a world with limited resources will be restricted. According to the population theory with the first version written by Malthus in 1789, resources will be insufficient against the increasing population (Malthus, 1992). He predicts that aggressive policies will negatively affect countries as in the years when mercantilism was experiencing its golden era in Europe. He says that the new period resembles the pre-industrialization 18th century more, rather than the 19th and 20th centuries. The point that Vries ignores here is technological developments. Countries do not only conduct R&D studies for high-technology products but also take steps for efficient and economical use of available resources. For this reason, the theory that China and India's aggressive growth policies may be restricted due to scarce resources seems weak in terms of this. In addition to this, with a Malthusian perspective, there are some opinions that the last pandemic is the effort of nature to balance the increasing human population on the earth, and the will of some countries to practice community immunity can be evaluated in this context, too.

Geography and Power

As the center of power changed its location again after 200 years, it is inevitable for Turkey, which hosted this center for long years and considered to be the heir of this center somehow, to be affected by this change. This geography of Turkey has been an important center throughout history. For example, Turkey's southern and southeastern geographies are located in the region called *Fertile Crescent* by Breasted (1916). This crescent containing a region covering the Mediterranean coast with fertile soil (Palestine, Lebanon, Syria, and Jordan), Iraq, Iran, Kuwait, and Turkey has contributed to the establishment of many nations and civilizations in this geography. For this reason, communities have interacted with each other earlier than many parts of the world and technological, social, and economic progress has developed in this geography earlier. Turkey is also the heir of these civilizations in this respect. Therefore, it is important to consider the experienced shift in power from a historical perspective. The experienced shift of power is actually the movement of the world economic system to return to its nature. Since many civilizations lived on throughout history, the Fertile Crescent has been approached in an archaeological sense in general. However, these fertile lands owned by these lands have determined the fate of this geography in the economic sense.

Map 1. Fertile Crescent Region



Turkey is a party to the fate of its geography due to its location. Although political and military upheavals experienced today have alienated Turkey from this geography in a process of approximately 100 years, Turkey, as the heir of a state that governed this region in peace for long years, has achieved a natural sphere of influence in these lands. As firstly in history attributed to Ibn Khaldun, then claimed by other persons such as Diamond (1997), if the geography is destiny, Turkey should follow proactive economic and political policies on this geography.

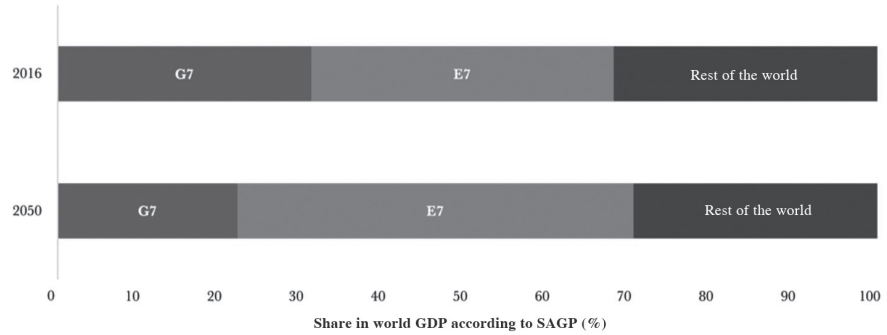
When we consider the effects of geography on the economy, and as we consider that the economic system, which has been dominated by the West for 200 years, proved the economic power of East again and proved, with the projections, that it will pass the West in an economic sense, then we can think that the economic order in the world returned to its previous bed. The fact that the economic and financial system, which has been causing serious economic injustices in the world for 200 years and shaped by West, is returning to its previous bed, and that East is emerging as an alternative should be seen as a chance to eliminate these injustices. Economic power in this sense also changes the position of geographic power.

Rise of the East and Opportunities

Developing countries grow faster than in developed countries. (PwC, 2017) predicts that by 2050, the top 32 economies of the world will constitute 85% of the total GDP in the world according to the current growth projection. Among these 32 economies, the share of countries currently considered as developing

countries is large. As can be seen in Figure 1, it is estimated that the share of developing countries, particularly including Turkey (Brazil, China, India, Indonesia, Mexico, Russia, and Turkey) in the world economy will increase in a significant manner.

Figure 1. Estimated change in world GDP shares



Source: *(PwC, 2017)*

In the prediction foreseeing that China and India will share the first two places as the top two economic powers in 2050; Indonesia leaves the United Kingdom behind and Turkey leaves France and Italy behind. Furthermore, Muslim countries such as Bangladesh, Malaysia, Egypt, Nigeria, and Pakistan appear as prominent countries in the 2050 projection. The fact that countries, such as Nigeria, Russia, and Saudi Arabia, whose economic growth depends on natural resources should diversify their economies is another issue highlighted in the report that reveals the predictions for the world economy for 2050 (PwC, 2017). The fact that the decrease in oil prices after the pandemic had an adverse effect on the economies of these countries points out the accuracy of the policy suggestion. Turkey needs to diversify its production items in the same way and avoid unidirectional growth. Because of the rapid transformation and unforeseen developments in the world often invalidate the predictions about which industries will come to the fore. Therefore, it is not a preference but an obligation to have the plans made for Turkey for the following period in a form to ensure the development of strategies within the frame of indigenousness and nationalism concepts in particular on the way of being a self-sufficient nation.

Table 1. Top 10 economies of the world in 2050 per SAGP

	2016	2050	
China	*1*	*1*	China
USA	*2*	*2*	India
India	*3*	*3*	USA
Japan	*4*	*4*	Indonesia
Germany	*5*	*5*	Brazil
Russia	*6*	*6*	Russia
Brazil	*7*	*7*	Mexico
Indonesia	*8*	*8*	Japan
United Kingdom	*9*	*9*	Germany
France	*10*	*10*	United Kingdom

E7 economies G7 economies

Source: *(PwC, 2017)*

As can be seen in Table 1, China, India, and Indonesia take the lead in the prediction that Eastern countries will have their weight felt particularly in 2050.

One of the greatest architects of the rise of the East is China. Tselichtchev (2012) collects this effect and the rise of China under 3 main topics. The first is that China, which has increased its importance in both production and export in the world very quickly, is among the important players in the world with its R&D investments and high technology products. However, although there are attempts in the service sector with its increasing income level, the West is still ahead of China in this regard. Beyond this, secondly, China has proven how strong and robust its economy is during the 2008 global financial crisis compared to the West. It has been seen that the West is fragile in this respect and China is better macro-economically. China's state-private sector mixture capitalist economic model has shown robust points. This situation also demonstrated the power of the central government in the struggle against the pandemic, and if we left the disputes about the accuracy and consistency of the data aside, it was seen that China was more successful in controlling the pandemic despite its population. Third and lastly, China, at the points of conflict of interest, has shown a very successful ability in shaping the events in line with its interests. Since this competition is generally under unequal conditions, the situation that was shaped in line with the goals of the West has started to take shape in line with the goals of China.

Having no mind of doing a Western business, China has nevertheless received its share from the pragmatic understanding of capitalism far better. Therefore, during the structural transformation of its economy, it has taken

steps to accommodate many elements of the Western capitalist system. But it did not fully comply with all the rules, concepts, and principles of this system. Unlike the West, China's economic system has given more roles to the state compared to any Western country. Feeling no hesitation to directly support these companies to maintain the position of Chinese private companies in the world, the Chinese government not only supported the industry and businesses but also followed policies to increase the efficiency of the companies. Offering joint investment to private companies is quite common. China has continued its growth success since the late 1970s to the present day and pointed out that this success is not a coincidence (Tselichtchev, 2011: 200-201). It can be expected that this success can set an example for the policies to be followed in the new period by the developing countries, particularly Turkey, etc.

Due to the size of the role to be played in the revival of the Silk Road, China has a role not only for Turkey but also for all countries having position and role on this road. The importance of the economic relations to be established with China, which is a monopoly in low-cost production in the world and proceeded to attack in high-technology products, is great. During this production and export period, China, which increased its dollar reserves in particular, showed the West that it is an important competitor in this regard. The experience shift of power-axis presents China as an alternative or competitor to the unipolar capitalist economic order in the world with its unique capitalism. The countries that China will trail in this process may also be competitors to this unipolar economic order.

China's share of manufactured products is still expanding. While the production industry is getting stronger, China's influence on certain industries in the world is also increasing. After the 2008 crisis, while the USA, many European countries' and Japan economies entered a very difficult period, China was affected by this situation at a minimum level due to its strong economic structure. The fragility of many European countries, which obtain their economic power from the financial sector rather than the real sector such as China, has been understood through this crisis. Even only this case was one of the reasons that increased the speed of the economic power shift. The role of the service industry, which came to a point of stop during the pandemic, in the economy began to be questioned. While criticism of the artificiality of the success of Western countries, which have a very successful position in the service industry, in particular, has increased, the sustainability of this situation has started to be discussed.

Today, as it was in the 20th century, a system in which one or two countries changed the world's economic balance has now turned into a system where economic and political collaborations lead the world in a multipolar economic order. For this reason, collaborations and joint investments with China and countries with high development potential are very important in the new global economic system. This power shift does not mean that the West or China will be the global leader. This shift is a very important indicator that

the world is going to multipolarity (Tselichtchev, 2011: 209). Furthermore, as seen in the pandemic, it is important to diversify the business partners in the trade and economy. The multipolar world offers opportunities for developing countries in this sense.

It is obvious that the world is in a phase of change and transformation. The power axis of the world shifts from the Atlantic (North America-Europe) region, which we call north-west, back to the East (Asia-Pacific). If we evaluate this shift as specific to China, certainly China has more potential to increase its power, become a center, and ensure the continuation of the power shift compared to the USA, Japan, and other Western countries. In addition to this, while China's sphere of influence is increasing, particularly in Eastern Asia, and the history of the West is known by colonialism and colonization, the sphere of influence of these countries is gradually decreasing (Hagström & Jerdén, 2014: 356). Furthermore, while China is growing, unlike America, Japan, Africa, and Europe, it does not give any trade deficit. For this reason, it is possible to say that China marked an era of economic change and transformation. China, Asia (East) as India predominantly, increase their economic efficiency in the world and become a candidate location for becoming a new center (Frank, 1998: 126-129). But, after the pandemic, as a result of the fact that countries comprehend the importance of domestic and national production, it can be thought that China's trade will be negatively affected in areas that will partially shift to domestic production.

Having a significant influence on the development of China (Frank, 1998) and the West that constitute the center of the world's economic system for centuries, the Middle East and Islamic civilization are the most important candidates for economically passing the West that had a potential for growth in the 21st century. By acting from Frank's (1998) phase A and phase B thesis, it can be claimed that the 21st century points out the rise of the East again. Dividing the world history into 2 phases as phase A where the economies grow and phase B where the economies shrunk, Frank claims that the phase B for the East has come to an end and a period began where the phase A will be transferred from the West and entered to expansion again.

It is important to develop new trade channels, to evaluate economic opportunities and to determine the investments to be made in this direction with the developing countries that will increase their share in the world economy over time. Because not only China, but other countries rising in the east are India and Indonesia. As can be understood, the projections and predictions indicate that Asia will pass Europe economically again in the 21st century. Furthermore, it is thought that Africa will reach an economic size that will compete with the West in the new century with its population and economic size. When we do not take China and India on the East into growth calculations, Turkey is also exhibiting a very successful economic progress (Bradley, 2013: 55). This progress, although exchange rate shocks in 2018 and 2019 and being adversely affected by the pandemic in 2020, still incorporates

opportunities for Turkey. Furthermore, studies claiming that the effects of large pandemics experienced in economies previously remained limited and that the economies recovered rapidly (Benmelech & Frydman, 2020; Correia et al., 2020) point out that there will be more gradual transformations rather than a multidimensional and revolutionary transformation. Maybe the process of the already existing transformation will accelerate. In other words, when the foresight is evaluated independently from the post-pandemic period, they include the comments regarding the policies to be followed.

The targets set for long-term economically shows the economic potential of Turkey. Being a part of the Fertile Crescent that has been the center of world's economy throughout the centuries due to its location, Turkey is both the close neighbor and the relative of the Central Asia region named as the heart of the world. Furthermore, has to make good use of acting as a bridge between the developing/expanding East and the developed West to achieve its goals. For this, the strategies to be created after the pandemic should be realized by taking the opinions of all stakeholders, regardless of public and private sectors, and making capacity analyzes. Furthermore, it is important to include the universities, in other words, the Turkish academy, into the process.

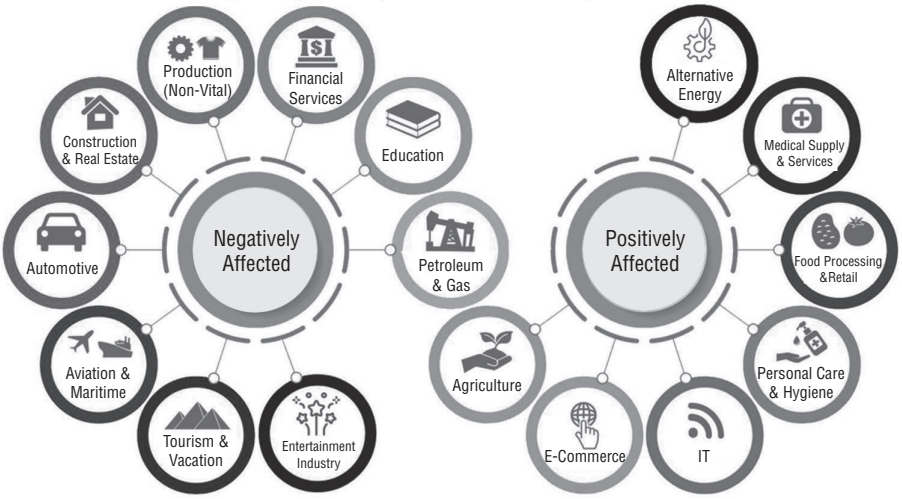
Economical and Financial Opportunities of Turkey after Pandemic

During the process after the 2000s in Turkey, rapid growth and development process took start with the new investments in a period where the level of development between East and West was converged, relevant conflicts were emerging and the center of power was evolved to multipolarity. Found the chance to benefit from the opportunities arising during this process and expanded its impact area in wide geography by soft power, Turkey is entering the new period with its success in struggling with pandemic and generosity in international aids by reinforcing its soft power.

In order to make an analysis of the post-pandemic period, it is necessary to follow the normal course in the world in economic terms. It cannot be expected from Turkey, the sole heir of the Seljuk and Ottoman today, to be affected by this while the economic power center shifts eastward. Having the opportunity to penetrate all nations and communities of Eurasia that is a candidate for being a new power center in terms of history, culture, nation, and religion, Turkey gained the chance to be an economic power as both regionally and globally. Having intensive commercial relations with the developed countries which we structurally call West, Turkey also establishes economic relations with the countries that will be the economic power, such as Russia and China. However, the economic relations to be improved by Turkey, which wants to be the economic power rather than these relations, with the other countries that are developing and having high economic potential is highly important. The establishment of these relations should be diversified on the basis of risk distribution. Production in the new period, trade and finance, Turkey's demographic characteristics, natural partners, corporate culture, civilization

of which it is the heir, cultural partnerships, and opportunities emerging with the pandemic, etc. opportunities should be addressed multidimensionally. In Figure 2, potential winners and losers of the industries that will be affected by the pandemic are summarized. But a production shift towards only the winners of these industries will not always be correct. The important thing is to diversify the industries and ensure their sustainability during the crisis periods. In addition to this, supporting and strengthening the industries that always keep the current and future potential vivid, such as the information technologies, and the strategic areas such as agriculture should be a priority for Turkey in every period and under every condition. Furthermore, the problems in the procurement process, the decline in consumer expenditures, the contraction in the service industry, particularly in banking, the increase in public expenditures, travel restrictions, and price increases in food prices that are listed as threats for the pandemic (Açıkgöz & Günay, 2020: 525) are temporary. Rather than these threats, opportunities should be evaluated by focusing on industries with high development potential for the post-pandemic period.

Figure 2. Potential winner and loser sectors in the pandemic period



Source: *(Şeker et al., 2020)*

Commerce: Collaborations Rather than Competition

Two important factors that influence the development of humanity are competition and collaboration. While competition enables societies to develop individually, collaborations have become a formula for acting and developing together. The pandemic, somewhat compelling, has shown the importance of collaboration rather than competition to the countries. For this reason, it can be predicted that collaboration between countries will be strengthened in the new period. It can be taken into consideration that, while establishing

collaborations in the new normal period, Turkey will take steps according to the developments in the pre-pandemic period. While the economic power axis of Turkey, which has historical kindred ship with the Central Asia that has been defined as the heartland by Mackinder (1904), shifts towards this direction, the relations with the Central Asian countries must be developed. Although the countries located here have the potential of raw materials, the fact that they do not have an industry to process this raw material has caused the production to remain agricultural and technologically non-development in these regions. Technological modernization move to be provided by Turkey to these countries can be the most important step to be taken in this area. Furthermore, when it is considered in terms of commerce, Turkey's import and export items overlap with these countries. These countries are rich of oil, natural gas, industrial raw materials, mines, textile raw materials, etc. constituting the majority of Turkey's import items. In other words, when the production structures of Turkey and these states located in Central Asia are taken into account, it can be said that both two parties complete each other economically (Karakaş & Karakaş, 2012: 78). These countries that have been relatively less affected by the effects of the pandemic by using their advantage to be partially self-enclosed during the pandemic process are important for Turkey for the diversification of business partnerships.

In the post-pandemic period, besides the risks, new opportunities also born for the countries that are economically developing. These opportunities and risks differ according to many topics such as the production infrastructure, consumption habits, and financial vulnerability of each country. For Turkey, this case accommodates risks but also provide opportunities within the frame of the economic potential of the country. For example, the closure of the economic development difference between the developed countries and developing countries reveals new collaboration alternatives as the years go by. It would be wrong to limit this breakthrough of Asia, in other words, the East, to China and India only. Because countries such as Bangladesh, Indonesia, Malaysia, and Pakistan appear to have the potential to have very successful performance in their growth projections. By acting from these projections, Turkey must also improve its economic, financial, and commercial relations with the countries, such as Indonesia, Nigeria, and Pakistan, which also has a common ground in terms of religion. The rapid appreciation of the exchange rate in 2018 and 2019 and the relative depreciation of the Turkish Lira also brought commercial opportunities in the new period. Along with the high exchange rate, Turkish goods have reached competitive prices in the global arena. It is important that the collaborations and trade that are carried out in this period continue after the pandemic. Furthermore, the emergence of the pandemic in China has enabled the countries to follow policies to diversify their production centers and commercial partners. In this process, Turkey remains a potential partner with its geographical location and production infrastructure for countries seeking to diversify their supply chains.

In addition to the development of trade, minimizing the transactions performed with foreign currencies gains importance in this sense. Within the scope of the collaborations to be established per the methods basing on the national currency in short- and long-term mutual trade and on clearing in multilateral trade and with the unions to be formed in line with common ideals and interests in the long term will bring diversity in terms of payment methods in trade in the post-pandemic period (Karagöl & Korkut, 2018). The shaping of these payment methods is closely related to the financial sector.

Finance: Alternative Finance Methods

The relations of Turkey with the Middle East and Balkan countries are still developing the complementarity axis. The fact that these countries have not been integrated into the global financial system enables them to be affected at a minimum level by the financial crises in the world. For this reason, the commercial relations that will be developed with these countries will have a positive effect on the economy during the global crisis. When the export figures of Turkey during the 2008 global crisis are taken into account, it can be said that the export of the Western countries that have been integrated into the world economy decreased and the export with the Northern Africa and the Middle East countries that have not been integrated into the global system has increased. In addition to this, the fact that the regional countries are Muslim offers an area of development for Turkey in terms of Islamic finance. Because of the fact that from mont de piete to participation banks, Turkey is a natural heir of the interest-free finance system and its success and development in the financial technologies recently points out that it has the possibility and potential to be a center to collect the capital flows this geography. Furthermore, supporting Islamic finance, which, due to its essential principles, contributes more to the real sector, in other words, the funding/financing of production and trade compared to conventional finance, will contribute to the development of domestic and national production whose importance is more understood in the pandemic process. Understanding the importance of collaborations during the pandemic process, the difficulty of small and medium-sized companies to survive, and putting human values in the economy aside and seeing that the implementation of the policies only with rational and pragmatist approach is not sustainable have also revealed the necessity that Islamic finance, which is also defined as humane finance (Korkut & Kar, 2018), must have more shares in the finance system in the future.

The recent reactions against excessive financialization due to the breaking of the economic system from the real sector will increase the orientation towards alternative financial systems. The financial crises that occurred before the pandemic increased the criticism for the change in the financial sector that was based on a balloon, in other words, artificial growth, regardless of the production and trade. The economic slowdown during the pandemic and the problems experienced by the developed countries in the production of

very simple products such as medical masks greatly shook the reputation of the financial sector. But it would be a mistake to expect revolutionary transformations in a short period, particularly when companies concentrate on the financial sector in terms of economic size. On the other hand, this situation provides opportunities for developing countries to establish the infrastructure of a financial system interbedded with the real sector. Concerning this matter, Turkey must diversify the alternatives, including Islamic finance, at the same time, put economical policies into enforcement to protect itself from the economic fluctuations and contractions from regional economic collaborations to national currency and trade.

One of the most basic components of development is the provision of capital accumulation. Capital accumulation encourages new investments, as well as establishes economic growth and development. For this reason, efforts should be made to develop alternative savings methods and raise awareness in society and create resources for new investments. This can be possible with the realization of new fundraising methods. When the damage experienced by the finance sector due to the pandemic is taken into account in particular, the risk of the finance sector must be spread with the banks and non-bank finance institutions by ensuring fund diversification rent deposit fund that can be maintained in finding a resource, the pilgrimage fund exhibited success in Muslim countries and alternative funds such as investment-oriented project-based funds. Furthermore, how the payment systems are strategic for their countries should be taken into consideration and an alternative payment system, against financial foreign operations, should be mentioned in the economic agenda of Turkey not as a preference but as an obligation (Parker, 2020: 96).

Human capital: Young Population and Vocational Education

Turkey owns being relatively less affected by the global pandemic in terms of death rates to its young population. However, according to the population projections of Turkey, which is very lucky now in terms of the young population, will, unfortunately, lose its this population advantage in the following periods along with the decreasing population increase rate in the future. When it is evaluated in this respect, it is obvious that Turkey should follow a new strategy in terms of population. Bulut (2013) claims that the population has reached the limit of 100 million in light of current birth rates and projections, but cannot exceed this critical limit. In this respect, the recent refugees coming to Turkey due to the internal turmoil in Syria would be considered as an opportunity for Turkey.

Since the ending time of the current turmoil in Syria cannot be foreseen, the actualization of arrangements to enable the refugees, who are in Turkey, participate in the social and economic life gradually and contribute production is very important in terms of evaluating the population advantage. Of course, the important thing here is not only the size of the population but also its

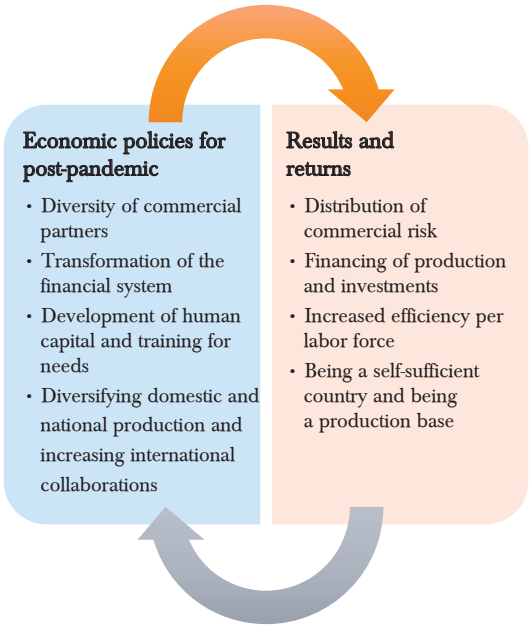
quality. The importance of investing in the population emerges here. Turkey must implement education-related policies to improve the production quality and efficiency of human capital in the new period. It is necessary to manage the process with patience in the policies implemented without forgetting that the returns on the investments made in education are taken in a long time. However, in industries where it is possible to train intermediate personnel in agriculture and industry in the short term, capacity improving training should be started quickly in strategic areas. Particularly when high unemployment rates among the youth are taken into consideration, the importance of vocational courses and training comes to the fore.

Domestic and National Production: Being a Center in Production

The global epidemic has shown to all countries that the world is a large village and that it is not possible for the inhabitants of the village to move independently. In this respect, the new period will be the period of collaboration, not a competition, between countries. But the pandemic also pointed out the importance of countries' self-sufficiency in the production of very simple medical equipment. Yet it is understood that economies based on the service industry suffer more due to the pandemic process (Şeker et al., 2020). For this, in addition to high-tech products oriented to the strategic areas of Turkey, performing state-aided investments in production generally and exhibiting positive discrimination to domestic and national technology companies are important at this phase. The incentives, such as support packages announced for the economy during the pandemic period in Turkey, must be diversified in parallel to the developments in the world and they must be especially directed to the strategic areas.

Furthermore, there are great opportunities for Turkish companies to do production after the pandemic. Particularly while the negative perception of the emergence of the pandemic in China is still fresh, a suitable period has emerged for Turkish manufacturers having flexible and strong production potential to increase their share in the cake of the world's production. In this context, Turkey does not only need to increase its trade/export volume and domestic production but also needs a production paradigm oriented to the increase of the share taken from the global production cake basing on collaborations (Şeker et al., 2020). Particularly the high capital owner partners, who are looking for making international investments, should be taken to Turkey as a country that has frequently proven its economic sustainability on long-term and production-based investments under crises. As mentioned, its strong production potential and the ability to overcome crises provide a significant advantage for Turkey at this point. Furthermore, during the process of struggling with the pandemic, its success in controlling the pandemic although the high population and ability to maintain the production in a controlled manner during the pandemic are among the matters that bring Turkey into the forefront compared to its competitors.

Figure 3. Basic economic policies that must be followed in the post-pandemic period



Conclusion and General Evaluation

Having an economic edge over the West by the East within the following 30 years is seen in many economic projections. Everyone knows that China is the locomotive power of the East in this regard. One of the sources of this power is the Silk Road where culture, as well as trade goods, were transported from China's Xian city to Europe 2500 years ago. The starting point of this road is China. This road, where civilizations had the opportunity to establish an economic, social and cultural dialogue, survived to the present day by losing its importance as of the 16th Century when the West started to establish its economic dominance and to take under its monopoly with the aggressive economic mentality provided by mercantilism. The steps to be taken and policies to be followed by the decision-makers on the point that Turkey is one of the main routes of this road, which has been remembered again along with the commencement of the shift of the economic power center to the East and steps have been taken for reviving it, are very important.

Connecting Asia and Europe by the highways of three big bridges, Turkey pointed out that it is one of the most important bridge countries of Silk Road also through the use of the railway with Marmaray project under Istanbul Bosporus. The revival of this route means new opportunities for Turkey particularly in terms of reaching the growth targets after the pandemic. Turkey, which is one of the historical heirs of the road, must be present in the game as the play-maker whilst a new period starts for Africa, Asia, and Europe.

The estimations and projections show that a large middle-class will be born in the world, particularly in Asia. Analyzing the preferences and demands of this class emerged with the enrichment of the East and developing economic production policies accordingly should be the main goals of Turkey willing to be a play-maker country.

Projects for the revitalization of the Silk Road should be followed and these should be concluded as soon as possible. Turkey, which has close relations with both the Caucasus and Central Asia, should be one of the key partners of the railway with China-Kyrgyzstan-Kazakhstan-Azerbaijan-Caspian route. With recent developments in this regard, it can be said that Turkey has lost this role with Iran that has close relations, particularly with China. However, new truths and new relations occurred after the pandemic period. Being the center of stability particularly with its success in managing the pandemic and the management system that exhibits a corporate settlement, Turkey is the strongest country that has the potential to be a production base between the West, capital-rich for the investors willing to make production throughout the world, and the East, the labor-rich. With a Caspian-Caucasus connection where Turkey will be included, we can consider the stability to be ensured in the region as the key element of the revival of trade again between East and West. This stability can only be possible through the collaboration of the relevant states and investments of the private sector.

In the new era, Turkey should not put all eggs in one basket in terms of economic, financial, commercial, and international relations. In other words, for Western alliances such as the USA, the European Union, etc., relations with the rising values of the new era such as China, India, and partially Russia should not be put at risk. Likewise, the trade volume with the West, which today sets the standard of modern society and quality life, should always be maintained and developed. Meanwhile, in Africa, a Muslim Nigeria and developing African economies also comes at the top of the opportunities in front of Turkey. Having no bad record such as capitalism and colonialism, Turkey should well-evaluate commercial and economic collaboration opportunities in this region. The international aids made during the pandemic process, in particular, pointed out that Turkey has a human-focused international perspective, not interest-based. It should not be forgotten that the effects of investments to be made in these regions will be experienced over time, and relations with these countries should always be kept close during this period. Furthermore, the historical accumulation of Turkey, having natural penetration area in the neighboring region (Balkans, Caucasus, and Middle East) should be supported with economic investment and sanctions. It is apparent that the expectations of this geography from Turkey particularly in the last period increased. Investment-oriented steps must be taken without disappointing these regions. Willing to economically and financially maintain its success in struggling with pandemic also during the post-pandemic period, Turkey should expand its commercial partner alternatives, ensure the production diversity by tending to strategic areas at the point of production, focus on information technologies at

the point of the service industry, and concerning the financial issues, evaluate the alternative financing methods.

Acknowledgment

I would like to present my appreciation to my esteemed supervisor Prof. Mehmet Bulut for his support in the formation of essential opinions at the point of the constitution of the study, and Assoc. Prof. Ali Polat for his recommendations and suggestions by reading the study rigorously.

References

Açıkgöz, Ö. & Günay, A. (2020). The early impact of the Covid-19 pandemic on the global and Turkish economy. *Turkish journal of medical sciences, 50*(SI-1), 520-526.

Benmelech, E., & Frydman, C. (2020). *The 1918 Influenza Did Not Kill the US Economy*. VOX CEPR Policy Portal.

Breasted, J. H. (1916). *Ancient Times: A History of the Early World.* Boston: Ginn and Company.

Bulut, M. (2013). Türkiye'nin Dünya Ekonomisindeki Yeri ve Geleceği. *ADAM AKADEMİ Sosyal Bilimler Dergisi, 3*(2), 53-62.

Chirot, D. (1985). The rise of the West. *American Sociological Review*, 50(2), 181-195.

Correia, S., Luck, S., & Verner, E. (2020). Fight the Pandemic, Save the Economy: Lessons from the 1918 Flu (No. 20200327). Federal Reserve Bank of New York.

Diamond, J. M. (1997). *Guns, Germs and Steel: A Short History of Everybody for the last 13.000 years.* London: Random House.

Frank, A. G. (1998). *ReOrient Global Economy in the Asian Age* (1st ed.). London: University of California Press.

Fukuyama, F. (1992). *The End of History and the Last Man* (1st ed.). New York: The Free Press A Division of Macmillan Inc.

Gürsakal, G. G., & Kaya, S. (2013). An Appraisal of the Chronology Problem in the "Rise of the West" Question. *Gazi Akademik Bakış*, 7(13), 67-79.

Hagström, L., & Jerdén, B. (2014). East Asia's Power Shift: The Flaws and Hazards of the Debate and How to Avoid Them. *Asian Perspective, 38*(3), 337-362. doi:10.5555/0258-9184-38.3.337

Hall, J. A. (1986). *Powers and liberties: The causes and consequences of the rise of the West*. Univ of California Press.

Hobson, J. M. (2004). *The Eastern Origins of Western Civilisation* (1st ed.). Cambdrige: Cambridge University Press.

Karagöl, E. & Korkut, C. (2018). İslâm Ülkeleri Arasında Ticarette Yöntem Önerileri. *İktisadi, Sosyal ve Siyasal Boyutları ile İslam Ülkeleri Arasındaki İlişkiler.* Kocaeli: Umuttepe Yayınları.

Karakaş, A., & Karakaş, D. N. (2012). Bölgesel Ekonomik Güç Merkezi Olma Yolunda Türkiye'nin Dış Ticaretinin Karşılaştırmalı Görünümü: Yenidünya Düzeninde Yeni Cazibe Merkezi (mi?). *Kafkas Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 3*(3), 67-90.

Korkut, C., & Kar, M. (2018). İnsani Finans ve Değerler, *Kurumlarda Değerler* (s. 179-197). Konya: Necmettin Erbakan Üniversitesi Kültür Yayınları.

Mackinder, H. J. (1904). The Geographical Pivot of History. *The Geographical Journal*, 23(4), 421-437.

Malthus, T. R. (1992). *An Essay on the Principle of Population.* Cambridge University Press.

Polat, A. (2020). Sınır Ötesi Ödeme Sisteminin Ekonomi Politiği ve İslâm Ekonomisi Bağlamında Değerlendirmeler. *İslam İktisadında Para -bakırdan dijitale* (ss. 63-100). Ankara: Türkiye Diyanet Vakfı Yayınları.

PricewaterhouseCoopers – (PwC, 2017). *The Long View How will the global economic order change by 2050?*. PricewaterhouseCoopers.

Sezgin, F. (1967). *Geschichte des arabischen schriftums* (17 cilt). Brill.

Sezgin, F. (2007). *İslam'da Bilim ve Teknik* (5 cilt). Türkiye Bilimler Akademisi.

Stratejik Araştırmalar Enstitüsü – SAE (2009). 21. Yüzyılda Küresel Ekonomik Güç Kayması. İstanbul.

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. *The Quarterly Journal of Economics*, 70(1), 65-94.

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). *Covid-19 Küresel Salgın Değerlendirme Raporu*. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34.

Tselichtchev, I. (2011). *China Versus the West: The Global Power Shift of the 21st Century*. Singapore: John Wiley & Sons Singapore Pte. Ltd.

Vries, P. (2013). Decline of the West– Rise of the East? *Journal of Modern European History, 11*(3), 315-328. doi:10.17104/1611-8944_2013_3_315



The Future of the Tourism Sector after the Great Lockdown

Günay Özcan

Muhsin Kar

Günay Özcan, Ph.D.

Günay Özcan, Ph.D. completed her master's degree with the thesis titled "Trade Liberalization and Impact On Poverty: Case of Turkey in 2012 at Kahramanmaraş Sütçü Imam University. Having started working as a research assistant in Necmettin Erbakan University, Faculty of Political Sciences, Department of Economics in 2013, Özcan, completed her doctorate with thesis titled "Financial Deepening and Business Cycle Relationship: An Empirical Analysis on Emerging Market Economies" and continues to work as an assistant professor in the same faculty.

Prof. Muhsin Kar

Prof. Dr. Muhsin Kar, completed his Master's Degree in the field of Economic Development at Leicester University (1994-1995). He received his PhD Degree from Loughborough University (1995-2000) with his thesis entitled "An Empirical Investigation of Financial Liberalization in Turkey: 1963-1995". His academic studies were concentrated in the fields of financial sector-real sector interaction, economic growth, growth, direct foreign capital, European integration, transition economies. He published numerous articles, compilation books and auxiliary textbooks in international and nationally contested journals scanned by SSCI and area indexes on these issues. He took part in the projects supported by State Planning Organization (SPO) and TUBITAK as an Executive and Researcher. Dr. Kar, a member of Turkish Academy of Sciences (TÜBA), appointed as the rector to Niğde Ömer Halisdemir in 2017 and is still in this position.

The Future of the Tourism Sector after the Great Lockdown[1]

Günay Özcan
Necmettin Erbakan University
gakel@erbakan.edu.tr

Muhsin Kar
Ankara Yıldırım Beyazıt University
mkar@ybu.edu.tr

Abstract
The global coronavirus outbreak, called Great Lockdown, has negative effects on all sectors. The psychological, sociological and especially economic negative effects of the outbreak are expected to continue in the short and medium term. The tourism sector is one of the sectors that are affected by the pandemic most. At the same time, accommodation, food and beverage, transportation and other sectors (souvenirs, carpet-rugs, etc.), which are sub-sectors related to tourism, have been exposed to the same effect. The tourism sector both in Turkey and in the world, is testing the highest employment decline in its history. The negative impact of these effects on the tourism sector is expected to continue increasingly. The year 2020 is considered a dead period for many sectors. It is estimated that perhaps the worst data of its history will be recorded for the tourism and travel industry in this period. The measures taken under the light of these leading indicators point to a period when radical consumption and production patterns will be tested and travel trends will change structurally.

Keywords
COVID-19 and tourism, effect of epidemic on tourism, pandemic and tourism, tourism sector

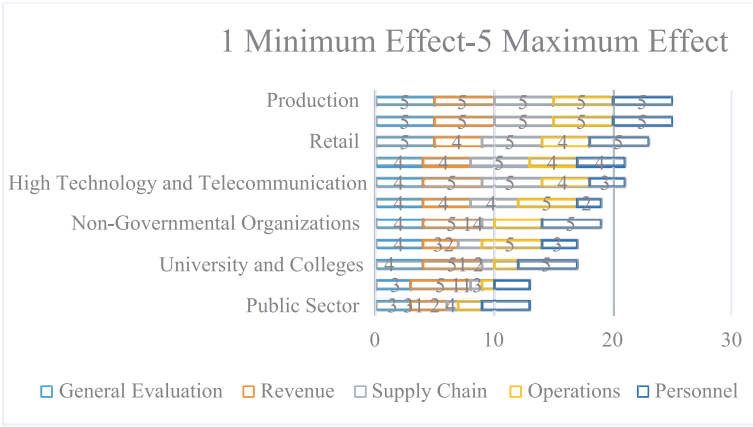
[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Tourism industry has become an industry that has folded both its tourist numbers and tourism revenue in past fifty years. Tourism is an industry creating one of each ten jobs in the world, holding a share of $1.6 trillion within the world's export, generating 10% of world's GDP, as well 7% of the world's export and 30% of the world's service export (UNWTO, 2020). On the other side,while the number of tourists in 2019 reached to 1.5 billion, the tourism revenue reached to $1.7 trillion. Tourism activity is an industry that is considerably open and fragile against shocks (pandemic, terror, war, acts of God, etc.) in terms of demand.Meanwhile, as well as being fragile, it has an industrial structure that can regenerate itself against shocks.However, the tourism industry entered into a new period following the declaration of COVID-19 as pandemic, in other words as global outbreak, by the World Health Organization on March 11, 2020.It is unlikely to get over this period without any damage in the short- and long-term. In the studies reviewing the impact of the pandemic to the Chinese and world's economy, it is assumed that the virus will damage the Chinese economy approximately by $62 billion and world's economy by more than $280 billion in the first quarter of the year (Ayittey vd., 2020; Acar, 2020). On the other side, in its optimistic estimation, Organization for Economic Cooperation and Development (OECD) expects that a decrease at a rate of 45% will be experienced in the international tourism transactions in 2020 due to COVID-19. In its pessimistic estimation,it is foreseen that this decrease will rise to 70% (OECD, 2020) in case the virus continues until September 2020. The domestic tourism is also over-effected due to the restriction measures, however a quicker recovery is expected in the domestic tourism following the recovery phase (Bahar and İlal, 2020).Because, initially the out-of-town prohibitions within the country will be revoked. And concerning the international travels, it is foreseen that the measures and restrictions will continue for a while.

When the macroeconomic aspect of Turkish tourism is taken into consideration, a recovery is in question in the industry following the sharp falls in the number of tourist and tourism revenue of 2016. In 2019, the total number of foreign touristsarrived to Turkey was 45 million and an increase at a rate of 12%,compared to 2018, was experienced in the total number of incoming foreign tourists. These figures reach to 51 million tourists and a change rate of 14% together with the citizens residing abroad. The countries that sent the most visitors are, respectively; Russia (7 million), Germany (5 million), Bulgaria (2.7 million), United Kingdom (2.6 million) and Iran (2.1 million). And regarding the tourism revenues in 2019, there is an increase of 16% compared to the previous year. Accordingly, the tourismrevenues reached to $34.5 billion. The average per capita expenditure reached to $666 (Ministry of Culture and Tourism, 2020).

Figure 1. Effect of COVID-19 Pandemic on Industries Index



Source: *Avasant LLC (2020)*

In the effect index prepared by Avasant LLC (2020) through taking the personnel, operations, supply chain and revenues in 11 master industries worldwide into consideration, it is in evidence in Figure 1 that the industries being effected in the severest manner are the production, travel and transportation. It is seen that the travel and transportation industries received the highest points (5 points) in terms of general evaluation, revenue, supply chain, operations and personnel, therefore they are one of the two industries among the industries that had the severest effect due to the coronavirus pandemic.

Keeping in mind that the severity and level of the future reflections of these adverse tables experienced throughout the world depend on the correct formation of the new models, trends and plans started to be formed as of today will designate the inversion direction of the tourism and logistic industries. Therefore, well-analysis of these effects and generation of solution in terms of industries should overlap with the policies to be applied by the economies.For

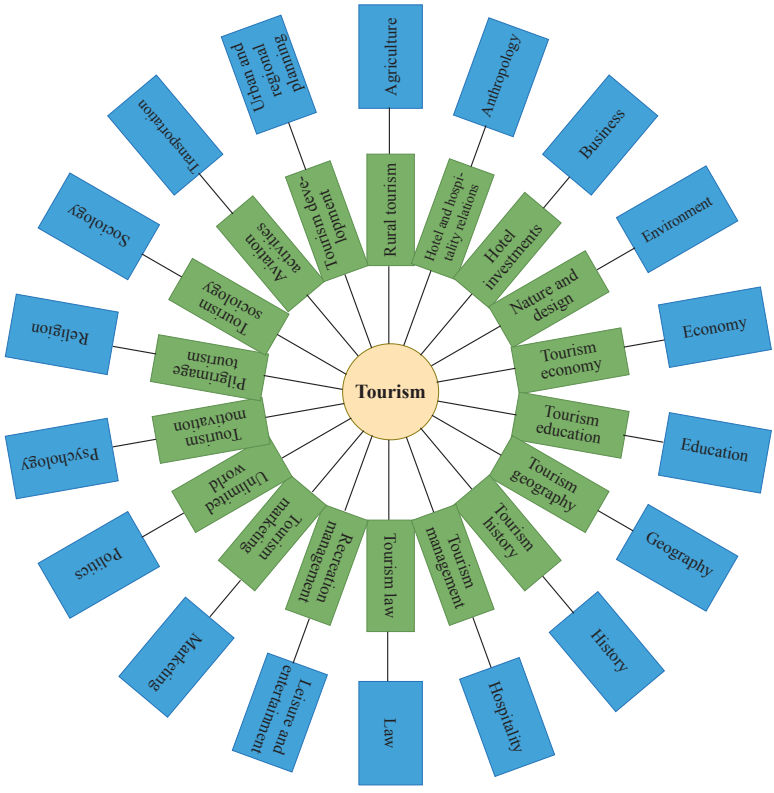
this reason, this study aims to present an opinion on the steps to be taken in the following periods by reviewing the effect of the pandemic on the tourism industry.

The study is consisted of 3 main topics.Following the introduction section, the theoretical framework and tourism-related projections will be mentioned in section 2. In the conclusion section, the conclusion and policy suggestions will be provided.

Conceptual Framework

The tourism industry has a significant position for the countries that are located in the Mediterranean basin, such as Turkey, and are dependent on mass tourism.It has a trade volume of $34.5 billion providing input for 54 different industries in Turkish economy.When the economic contribution of $34.5 billion, so the direct and induced effects of tourism industry are taken into consideration in terms of direct effects, it reaches to a great economic volume as can be seen in Figure 2. The tourism industry accommodates a spectrum concern to various fields from education to culture, from anthropology to archaeology, from accommodation industry to transportation, souvenir and recreation.

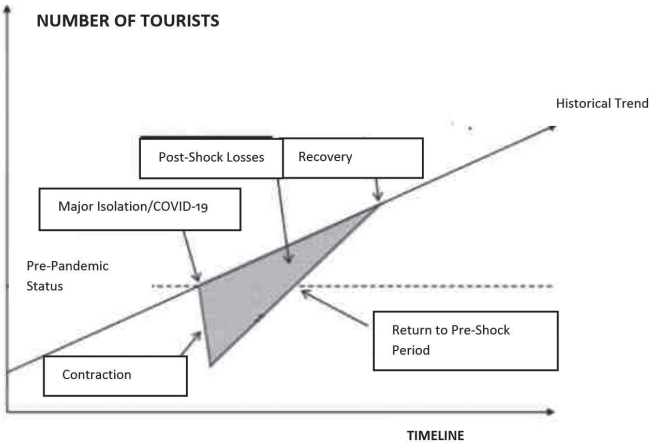
Figure 2. Multidisciplinary Structure of Tourism Industry



Source: *Jafari (2001); Bauer (2008)*

One of the most enormous dangers being scared of regionally in the tourism industry is the global terrorist acts, but the size of the adverse effect of this pandemic cannot be estimated. It is possible to explain the shocks experienced in the tourism industry, so the effect of COVID-19 as seen in Graphic 1.

Graphic 1. Effect of COVID-19 Pandemic on Number of Tourists



Source: *Gülal, Özcan and Özmen (2016) and edited by the author.*

When the Graphic 1 is reviewed, particularly the date March 11th, 2019 (the date on which the epidemic is accepted as pandemic) represents the starting point of the external shock. Since that date, the tourism industry is in a contraction period, and the deep point has not been reached yet in terms of the world tourism economy. Following the completion of the contraction period, shall be returned to the recovery, in other words, the pre-shock period.Even in the terrorist incidents, this recovery period catches its pre-shock, in other words, previous level after 3-6 months.The size (scanned area) of the losses experienced due to the shock is determined by the success of the countries in using the economic policies.In 2020, according to the estimates of World Tourism Organization, it is expected to experience a sharp fall at a rate of 20-30% at best in the international tourist arrivals compared to 2019 (UNWTO, 2020).

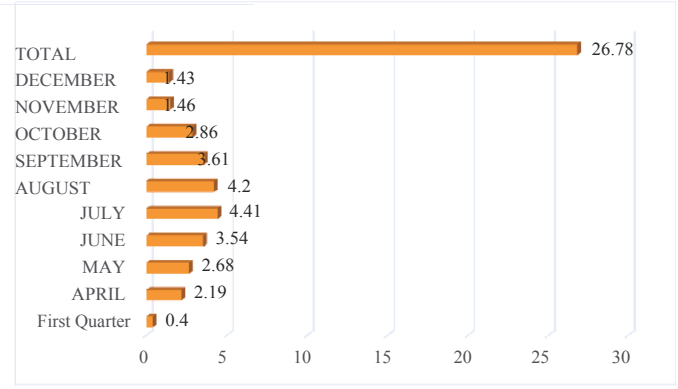
In general, the economic effects of the tourism is evaluated in terms of the number of tourists, so the tourism revenues.The effect of the tourism on the foreign exchange earnings can be evaluated over the Graphic 2.

Economic Effects of Pandemic Expected in Tourism Industry

Tourism has significant positive contributions to the foreign exchange reserves. As of 2019, it provided $34.5 billion injection to Turkish economy. For the monthly amount of foreign exchange provided to the tourism industry, the minimum foreign exchange amount estimation for 2020 has been calculated by multiplying the monthly number of tourist arrivals with the average tourist

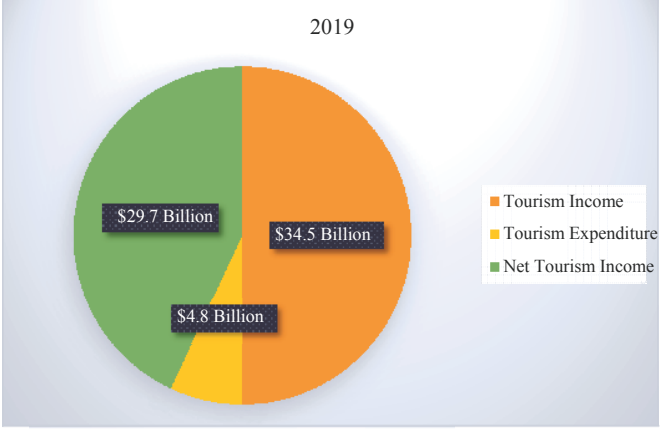
expenditure. When the Graphic 2 is reviewed, the tourism revenue loss in the first quarter actualized as $0.4 billion (TÜİK, 2020).

Graphic 2. 2020 Tourism Industry EstimatedForeign Exchange Loss (billion dollars)[2]



Along with the full implementation of the overseas arrival and departure prohibitions as of April, the reach of losses to the maximum level is expected. It is expected that the estimated foreign exchange losses inJune, July and August will reach to the maximum level as can be seen in Graphic 2.And it is expectedto reach $26.7 billion in total. The controlled initiation of domestic tourism in June 2020 will give a shape to how to proceed in foreign tourism. The measures taken in the tourism industry and the measures to be taken by the countries sending tourist in the global aspect will shape the Graphic 2 in adverse or positive direction.

Graphic 3. Tourism Income and Expenditure (billion dollars)

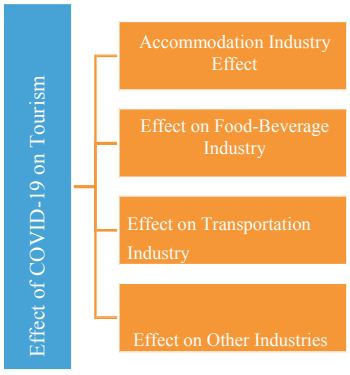


[2] Turkish citizens residing abroad have not been included into the calculations. When Turkish citizens are included, there will be a total increase of approximately $4.5 billion.

On the other hand, when it is considered in terms of tourism expenditures, the tourism expenditures turned into a gain since Turkish citizens could not departed from the country due to the pandemic in 2020. Therefore, the tourism expenditures turned into a tourism gain of minimum $4.8 billion in 2020.

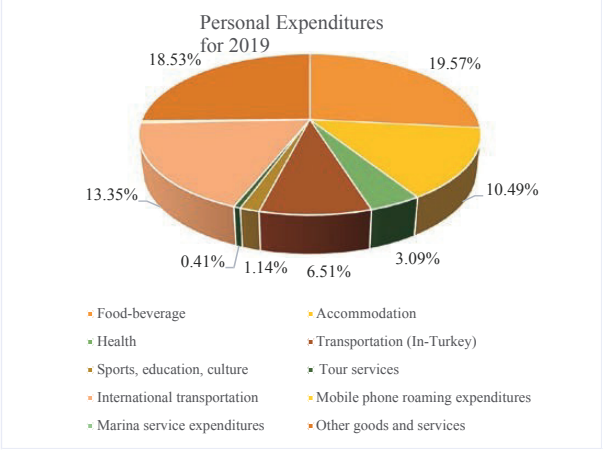
The economic effects of the tourism industry are essentially divided into two groups. First of these is the real economic effects, and the second is the monetary economic effects. It is possible to handle the reel economic effects in the basis of the sub-industries of the tourism industry.

Figure 3. Effect of COVID-19 on Sub-Industries of Tourism



The Tourism Industry is essentially divided into 4 sub-industries. These are, as seen in Figure 3, are accommodation, food-beverage, transportation and other industries.

Graphic 4. Distribution of Personal Touristic Expenditures



When the distribution of the expenditures made in the tourism industry are taken into consideration, the food-beverage (19.5%), other goods and services (18.5%), transportation (13.3%) and accommodation (10.4%) are seen as the main items.

Effect on Accommodation Industry

The accommodation industry is ranked at the top of the main supply source of the tourism industry.It is the first destination of the tourist after the receipt of the transportations service. The share of the added value generated by the accommodation businesses positioned as key element in the tourism industry is, as seen in Table 1, 11.8% in 2018 and 10.4%in 2019. When the estimations for 2020 are evaluated, an economic loss of $3.6 billion is in question.

Tablo 1. Distribution of Tourism Income Per Expenditure Items (2018, 2019)

	2018		**2019**	
	Amount ($1000)	**Share (%)**	**Amount (1000$)**	**Share (%)**
TYPE OF EXPENDITURE				
Total tourism income (A+B)	**29.512.926**	100.00%	**34.520.332**	100.00%
Personal expenditures (A)	**22.546.615**	76.40%	**25.355.577**	73.45%
Food-beverage	5.933.587	20.11%	6.756.719	19.57%
Accommodation	3.299.496	11.18%	3.621.359	10.49%
Health	863.307	2.93%	1.065.105	3.09%
Transportation (In-Turkey)	1.943.635	6.59%	2.247.263	6.51%
Sports, education, culture	347.688	1.18%	393.778	1.14%
Tour services	117.373	0.40%	142.047	0.41%
International transportation	4.191.515	14.20%	4.607.257	13.35%
Mobile phone roaming expenditures	101.904	0.35%	85.364	0.25%
Marina service expenditures	37.237	0.13%	41.752	0.12%
Other goods and services	**5.710.869**	19.35%	**6.394.933**	18.53%
Textiles and shoes	3.326.166	11.27%	3.921.072	11.36%
Souvenir	1.260.845	4.27%	1.344.768	3.90%
Carpet, rug, etc.	93.661	0.32%	120.436	0.35%
Other expenditures	1.030.195	3.49%	1.008.657	2.92%
Package tour expenditures (share remained to our country) (B)	**6.966.310**	23.60%	**9.164.755**	26.55%

Source: *TÜİK Departing Visitors Survey, 2020*

The marginal utility level of tourism realizes at amounts higher than the normal commodities. Therefore, the people will stop or postpone, in the best-case scenario, their holiday and travel trend due to the rules and restrictions in the tourism industry.

However, along with this, it is possible that the following trends may reveal in the industry in the following periods: Boutique hotels, independent villas, holiday villages, private boat tours, bungalows, summer houses, caravans, tents and camps, large-sized hotels[3].

A communique numbered 2020/6 was published for the accommodation enterprises on 12.05.2020. With this communique, mandatory and advisory rules have been set for many facilities.However, this communique reveals 2 elements in terms of the accommodation enterprises. One of these is that the rules expected to be complied by the enterprises cause cost increase, and the second one is that the enterprises do not want to operate with 60% vacancy rate or certain capacity. As a conclusion in both of the cases, there will be a recession resulting from the cost increases. So the contraction will reveal in the industry in the short- and medium-term.

On the other hand, the technological trends and changes will gain importance in the accommodation industry, too. For instance; automatic doors, contactless payment, menu reservations in advance, cessation of open-buffet, the release of a technology-focused structure in general in the lodging industry is expected. It can be expected that this may improve the efficiency, on the other hand, increase the technological and structural unemployment.

Furthermore, the format in check-in processes will also change. The use of face-scanning programs, door-opening feature from mobile phone with Bluetooth technology, and electronic signature, etc. applications will increase. It is foreseen that the food-beverage and travel habits of the people will partially or completely change after this pandemic. The pools, fitness, kids' clubs and SPA areas of the hotels will be disinfected more carefully in terms of health.

Effect on Food-Beverage Industry

The share of the food-beverage industry within the tourism industry is very high. Within the tourism industry, the food and beverage industry, as can be seen in Table 1, is creating added value of $6.7 billion in Turkey. The share of the food and beverage industry in tourism revenues is 19.5%.The tourism industry in Turkey generally basis on All-Inclusive (AI) system.Along with COVID-19, radical changes are also expected in food-beverage trends in tourism. While all-inclusive format exhibits a decrease trend, the presentations will change to give people confidence.As in the aircraft, it is expected that the options such as the determination of the menus in advance, the selection of meals will come to the fore.In other words, the customers will not be able to

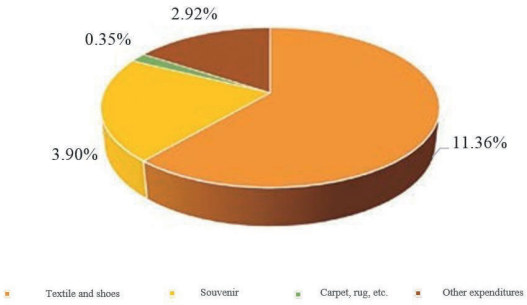
[3] When 60% vacancy rates and the 2020/6 numbered communique of the Ministry of Culture and Tourism are taken into consideration, it is expected that it will be preferred by a certain side.

take their dishes with their own spoons from steam-table food serving places. The cooks will serve the dishes of the customers from the live cooking stations. For disinfection, the hotels will have to go towards chemical cleaning products with a high alcohol content despite the cost increases. The increase in the costs will increase the prices according to the tourism demand model and therefore will decrease the demand for tourism. This means less tourists in the tourism industry. On the other hand, it should be underlined that most of the hotels are cleaner than many public spaces in terms of materials used.

Effect on Other Goods and Services Industry

Other goods and services constitute a very important income item for the tourism industry.Other goods and services item consists of textiles and shoes, souvenirs, carpets, rugs, etc. other expenditure group. It has a very important multiplier effect, particularly due to being ranked in the small- and medium-sized business class in the tourism industry. As it can be seen in Graphic 5, its share in tourism incomes in 2019 is $6.3 billion and it has ashare of 18.5%.

Graphic 5. Other Good and Service Expenditures in Tourism Industry

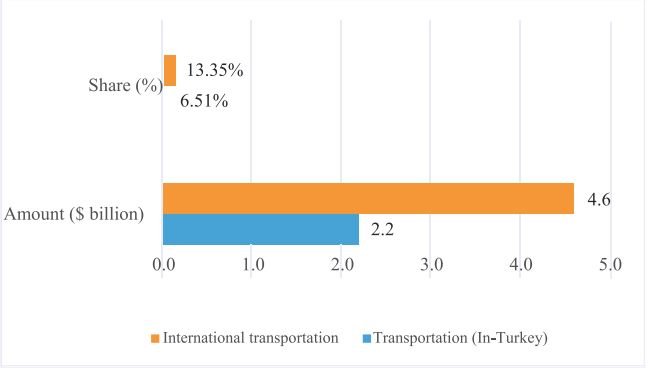


Due to the fact that the enterprises listed in the other goods and services industry are especially small-sized enterprises and their equity capital is insufficient, it is one of the sub-industries that will be most affected both in terms of demand and supply in the crisis caused by the COVID-19 pandemic. Among these industries, the textile and footwear industry with 11.3%, the souvenir industry with 3.9%, the carpet-rug and weaving industries with 2.9% are available.Although the demand of these industries realizes in touristic destinations such as Istanbul, Antalya, İzmir, their supply realizes in Gaziantep (carpet, rug weaving), Konya (footwear), Bursa (textile, towel, socks, etc.) and many cities of Anatolia. And this increases the size of the regional economic effects of COVID-19 or similar pandemics. Therefore, the sub-industries that depend on these industries are naturally added to the rings of the chain affected by the pandemic.

Effect on Transportation Industry

The fourth most important element of the tourism industry is the transportation industry. Transportation has the most important share of the tourism industry. The share of the transportation industry within tourism expenditures is 19.8%. The transportation in tourism is divided into two groups as international and national (In-Turkey). When it is evaluated as an economic size, it reaches a volume of $6.8 billion.

Graphic 6. Place of Transportation in Tourism Industry



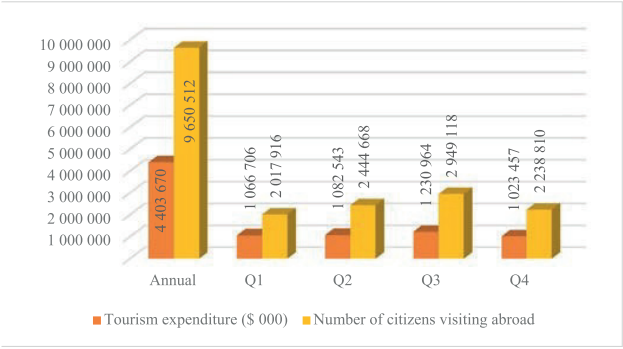
Particularly the airline companies have an important share in tourism transportation.The majority of tourism transportation (72.7%) is carried out by air transportation (Digilli, 2016: 200). Therefore, it is inevitable to take some measures regarding the air transportation. Taking restrictive measures in airline transportation, which is the most important pillar of the tourism industry and transportation industry, will reduce the demand both as cost and psychologically.The protective measures taken by THY at Istanbul airport or at any airport in the world, for example conducting a corona test, will be a deterrent factor for all passengers, both temporally, physically and economically.While the tourists do not tolerate the passport and visa, etc. issues under normal circumstances, such measures will prevent people from travelling for vacation or business.

In addition to this, similar measures taken in the aviation industry, personal trips, ecological trips, healthy life-SPA trips, gourmet trips, slow-city trips, social responsibility trips will create new trends.People will organize their travel plans online, instead of an agency, as well organize their flight, accommodation, transfer and even the private guide who will show the place they want to go. Maybe the important travel bloggers on the internet will appear as special travel planning experts before us and will help people by making personal travel plans. The public transportation vehicles will not be preferred due to fear of pandemic. People will reach the destinations they want to go by renting a car. The number of car rentals will increase at a certain rate (Bahar, 2020).

Effect on Tourism Expenditures

The tourism expenditures, which consist of the expenditures of our citizens who reside in the home-country, but visit other countries, decreased by 25.6% compared to the same quarter of the previous year and actualized as $793 million 491 thousand.

Graphic 7. Tourism Expenditure and Number of Departing Tourists (2019)



The tourism expenditure that was $4.4 billion in 2019 is, as can be seen in Graph 7, expected to decrease significantly in 2020.It is expected that the number of tourists visiting abroad and the tourism expenditure will decrease to very low levels with the change in consumption behaviour of people due to both COVID-19 pandemic and the increasing pressure on the foreign exchange rates.

The number of citizens visiting abroad in the first quarter of 2020 decreased by 13.6 percent compared to the same quarter of the previous year and reached 1 million 743 thousand 660 people. Their average expenditure per capita actualized as 455 dollars.Therefore, when the tourism expenditures are considered as an import item, it can be considered, in terms of Turkish economy, that this will decrease this import. The tourism balance will be balanced at positive side with the foreign exchange earnings obtained from here. However, since Turkey's tourism current account balance has an active tourism balance, the earnings of $4.4 billion will only act as a small buffer to the loss obtained from the tourism income.

Conclusion

Focused on the general economic effects of COVID-19 that has become a pandemic. In the literature, considerable levels of economic analysis are proposed.Since the tourism industry is a multidisciplinary area, it has many areas of effect. Particularly to the public health, sufficient attention should be paid to the environmental, sociological and cultural effects of the pandemic. In these and similar events that pose a global threat and have no medical treatment, acting within the rules set by the authorities minimizes the risks

that may occur. However, it is obvious that the demand particularly for the tourism being a peaceful and luxurious service will be adversely affected.These adversities will create radical changes in consumption and production habits after the pandemic.In addition to this, the depth of the effect of this crisis will vary depending on the process of the pandemic and the time of its end.The need of the people to a confidence environment that is healthy enough to tend to the tourism industry, and the presentation of both psychological and economic policy instruments that will stimulate the holiday impulse will be inevitable to reduce the losses caused by the pandemic in the tourism industry.

When the international mobility feature of the tourism industry is taken into consideration, the policies to be implemented by the economies on the tourism industry after the pandemic should be as to mutually support each other, so that the other countries can simultaneously benefit from the tourism demand that occurs in one country and at the same level of measures. Otherwise, the policies that are implemented only in one destination can be ineffective due to not finding a response.

References

Jafari, J. (2001). *The scientification of tourism. In: Smith V, Brent M, editors. Hosts and guests revisited: tourism issues of the 21st century*. Elmsford: Cognizant Communication Corporation.

Acar, Y. (2020). Yeni Koronavirüs (COVID-19) Salgını ve Turizm Faaliyetlerine Etkisi. *Güncel Turizm Araştırmaları Dergisi, 4*(1), 7-21.

Ayittey, F. K., Ayittey, M. K., Chiwero, N. B., Kamasah, J. S., & Dzuvor, C. (2020). Economic impacts of Wuhan 2019- nCoV on China and the world. *Journal of Medical Virology, 92*(5), 473-475.

Bahar, O., Çelik İlal, N. (2020). Coronavirüsün (COVID-19) turizm sektörü üzerindeki ekonomik etkileri. *International Journal of Social Sciences and Education Research, 6*(1), 108-122..

Avasant LLC (2020). Coronavirus Impact Index by Industry: A RadarView™ Assessment. Retrieved from: https://info.avasant.com/coronavirus-impact-index-by-industry

Bahar, O. (2020). Muğla Sıtkı Koçman Üniversitesi İktisadi ve İdari Bilimler Fakültesi Öğretim Üyesi Prof. Dr. Ozan Bahar ; "Kontrollü ve Sağlıklı Turizm" Retrieved from: https://www.muglayenigun.com/yerel-haberler/mugla-sitki-kocman-universitesi-iktisadi-ve-idari-bilimler-fakultesi-ogretim-uyesi-prof-dr-ozan-bahar-kontrollu-ve-saglikli-turizm/

Bauer, I. (2008). The health impact of tourism on local and indigenous populations in resource-poor countries. *Travel medicine and infectious disease, 6*(5), 276-291.

Gülal, M., Özcan, C.C. ve Özmen, İ. (2018). Terör ve Turizm İlişkisinin Ekonomi Politiği, *Turizmin Ekonomi Politiği*, (ss.129-148). Çanakkale: Paradigma Akademi

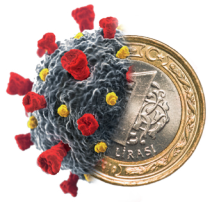
Digilli, M. (2018). Ulaşım ve Turizm İlişkisinin Ekonomi Politiği, *Turizmin Ekonomi Politiği*, (ss.179-214). Çanakkale: Paradigma Akademi.

UNWTO (2020). Impact assessment of the COVID-19 outbreak on international tourism, Retrieved from: https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-03/24-03Coronavirus.pdf

TÜİK, (2020). TÜİK Çıkış Yapan Ziyaretçiler Anketi, Retrieved from: http://tuik.gov.tr/PreTablo.do?alt_id=1072

TÜRSAB (2020). Turizm İstatistikleri. Retrieved from: https://www.tursab.org.tr/istatistikler/turist-sayisi-ve-turizm-geliri

OECD (2020). Tourism Policy Responses. Retrieved from: https://read.oecd-ilibrary.org/view/?ref=124_124984-7uf8nm95se&title=Covid-9_Tourism_Policy_Responses



The Collapse in Tourism during the Pandemic: Expectations and Opportunities for the Health Tourism

Muzaffer Şeker
Mustafa Solak

Prof. Muzaffer Şeker

TÜBA President, Prof. Muzaffer Şeker received his PhD in Human Anatomy at Leicester University, Faculty of Medicine in England. In 2000, he became an associate professor and in 2006, he became a full professor. He worked as an instructor in the United Arab Emirates for two years. He led the Department of Medical Education and Informatics. Dr. Şeker was appointed as founding-rector of Konya Necmettin Erbakan University in 2010, and was appointed as TÜBA President in 2019. He has been a member in many national and international academic organizations and non-governmental organizations such as Turkish Anatomy and Clinical Anatomy Society (TAKAD). He has also degree on Public Administration.

Prof. Mustafa Solak

Prof. Dr. Mustafa Solak was appointed as research assistant for the Anatolian University Medical Faculty Medical Genetics Professorship in 1980 and in 1985 he completed his doctorate. He started as a professor in the Afyon Kocatepe University Medical Faculty in 1999. Dr. Mustafa Solak was appointed as the rector to Afyon Kocatepe University in 2011, and he was elected as TÜBA Principal Member in 2012. Dr. Solak, TÜBA Academy Council member, has a lot of book chapters, articles in national and international journals, presentations various national and international congress and meetings. Dr. Solak currently works as a faculty member at Afyonkarahisar Health Sciences University.

The Collapse in Tourism during the Pandemic: Expectations and Opportunities for the Health Tourism[1]

Muzaffer Şeker
Turkish Academy of Sciences
mseker@tuba.gov.tr

Mustafa Solak
Afyonkarahisar Health Sciences University
msolak@aku.edu.tr

Abstract
Although it is defined within the tourism sector, health tourism, as an important function of the health sector, showing a rising trend for Turkey, indicates a serious economic development in recent years. Steps on legislative arrangements, infrastructural works and strategy determination have been completed in this area and a serious momentum has been shaped within the framework of sectoral incentives. In this study, the expectations, sectoral risks and opportunities of the health sector for health tourism after the pandemic are analyzed.

There are also evaluations on increasing the share of health tourism income and sustainable health tourism policy of Turkey that has strong health education, qualified infrastructure and experienced healthcare staff. Health tourism, in which the insurance system also interacts within the framework of national and international regulations and international agreements, constitutes an important sectoral share in the economy along with the logistics peripheral service areas. At the same time, the effects of the successful fighting process against to COVID-19 on health tourism are analyzed. In this regard, an evaluation on the contributions and shares of state and private sector is also made.

Keywords
health tourism, COVID-19, the future of tourism in the post-pandemic period

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

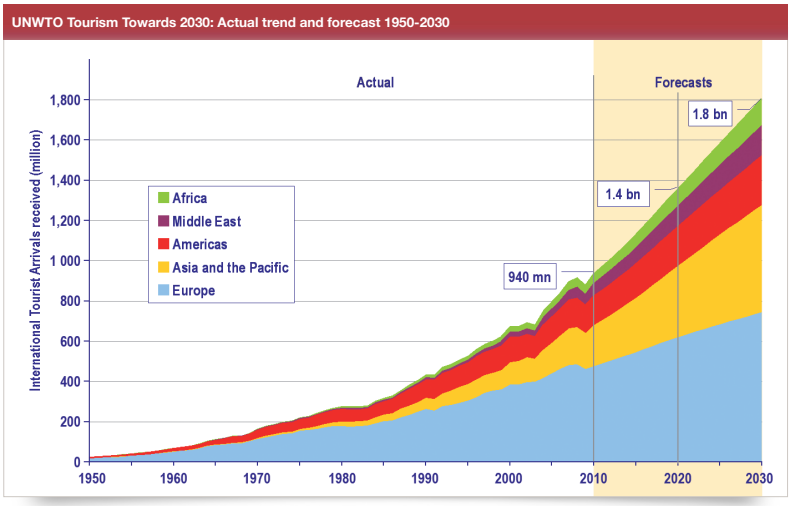
Introduction

Tourism is among the important income sources of Turkey. Having many areas of interaction and fragility due to its nature, the industry is at the top of the industries that have adversely been affected by the COVID-19 pandemic. Following the end of the process of struggling with the pandemic where national and international mobility dropped to a minimum the removal of the restrictions related to travels and the change in the psychological mental perception of the individuals will take time. It is expected that the implementation of the industrial developments and new regulations particularly to meet safe travel and holiday requests of the individuals will form a time-dependent adverse interregnum.

Tourism is a type of an important international interactive trade activity that creates employment in different areas, covers many industries, ensures regional economic potential with a cultural communication language of people by promoting and protecting the environment, nature, and cultural assets and offers a contribution to the minimization of the current deficit. Countries create different tourism destinations with attraction factors capturing the attention of people from different regions of the world, so they can unite their citizens with people from all over the world and they can develop the visions of their citizens.

The tourism, in terms of prioritized countries, can generate an economic potential reaching 9% of the Gross Domestic Product, and in such countries, ensures a share of 10% in employment due to providing flexible employment opportunity. The tourism industry forms 9% of the world's export. Market capacity of $3.2 trillion is mentioned in the global tourism industry. Furthermore, in general, the development and improvements in the world's economy foresee an increase in the number of people attending tourism activities. While the share of the developing countries in the market is 30% today, this share is expected to be around 57% by 2030. In Graphic 1, the projection regarding the increase in international tourist numbers in the world is given per year and regions.

Graphic 1. International tourist number projection per regions

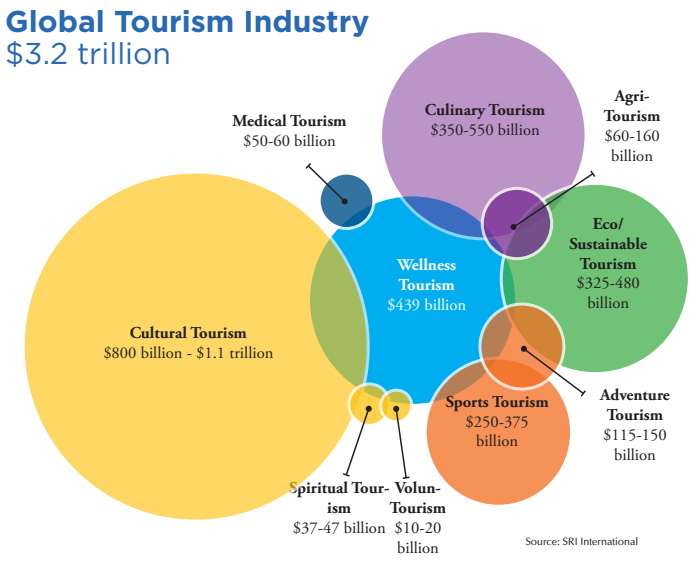


Source: *UNWTO, 2015*

According to the World Tourism Barometer report published by the United Nations World Tourism Organization (UNWTO) in 2020, the number of international tourists increased by 3.8% in 2019 and was actualized as 1.5 billion. International tourism grew by 7% in 2017 and by 6% in 2018. Particularly following the uncertainty caused by Brexit in terms of economic relations for Europe, the deceleration progress in the world's economy affected all industries due to the disappointment experienced by the European Union countries and the increasing geopolitical and commercial tensions all over the world during the COVID-19-related struggling period. It is reported that world tourism will also be negatively affected by this. These incidents caused a growth speed of 3.8% in 2019, which fell behind in comparison to the previous years. When these developments are taken into consideration, it is foreseen that the devastating impact of COVID-19 pandemic in the tourism industry will be greater. Concerning this, it is thought that health tourism and scientific congress tourism, as well as international student-oriented education activity, can serve to revive the tourism industry.

When the distribution of global tourism to sub-industries is considered, cultural tourism takes the first place and health tourism takes second place. As can be seen in Figure 1, health tourism has an important share in the global tourism industry. The size of the healthcare market and the high income it has generated have led to the formation and rapid development of health tourism.

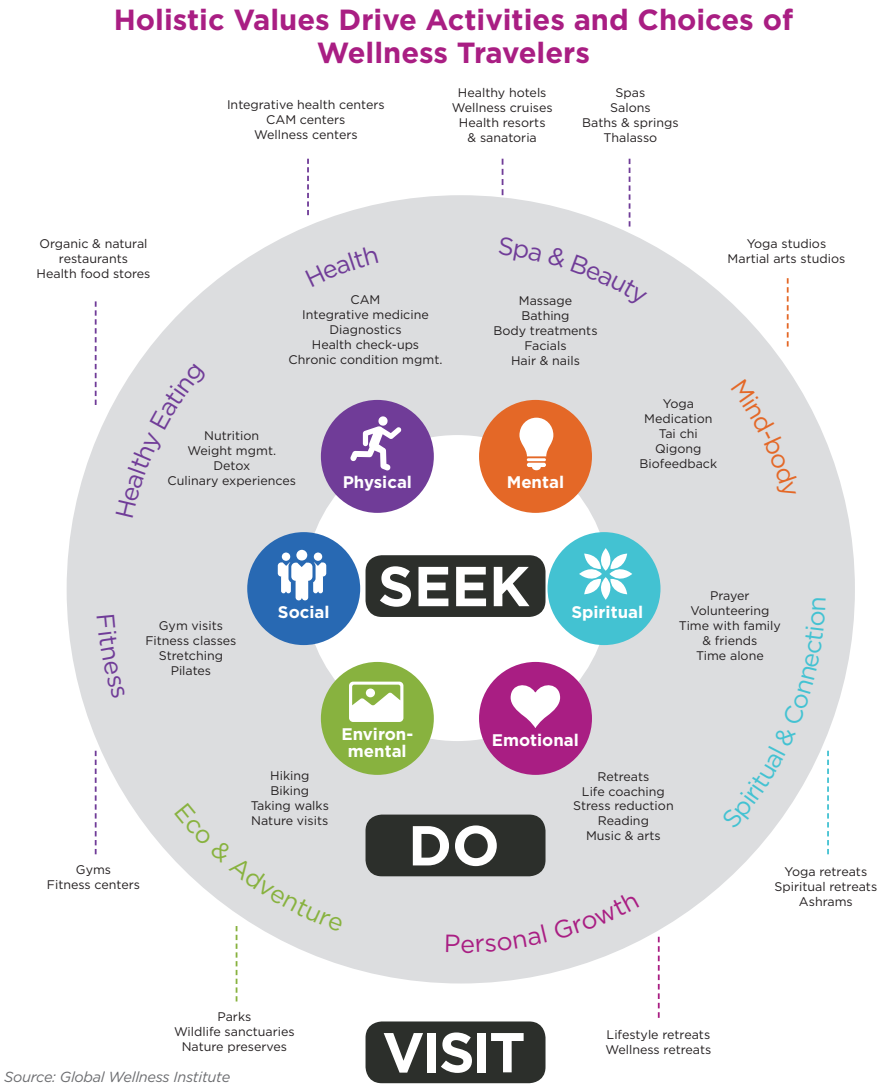
Figure 1. Distribution of Global Tourism per Areas



Source: *Global Wellness Institute (2015)*

Within the health definition of the World Health Organization, it is emphasized that the evaluation of all tourism alternatives that will contribute to the physical, mental, spiritual, social, emotional, the environmental health of the individual within the scope of health tourism is of importance (Global Wellness Institute, 2018). As can be seen in Figure 2, health tourism draws a multidirectional and multidimensional scope.

Figure 2. Scope of health tourism per topics



Source: *Global Welln ess Institute (2018)*

Health Tourism and Potential of Turkey

Throughout history, people tried various methods to be healed. People who couldn't find the change to heal in their own region travelled. For example, Istanbul, Bursa, and Baghdad, etc. cities that were the centres of hospitals and thermal springs captured the attraction of people who come for treatment from far geographies. Today, with the developed technological opportunities, the comfort and speed of travel increased and facilitated the mobility of the people for health purposes. Although all these developments, the health service purposed trips have been the trips to be performed by the non-poor people for long years (Tontuş, 2017a).

Since the studies to be performed in the field of health tourism cannot be achieved individually, independently and alone by the health or tourism industry, it is finally understood that the formation of synergy by both two industries through sharing their knowledge on the human labour via co-planning, strategy determination and infrastructure will be for the benefit of the industry. Accordingly, health tourism policies and legislation have been developed as the common practice area by the health industry and tourism industry.

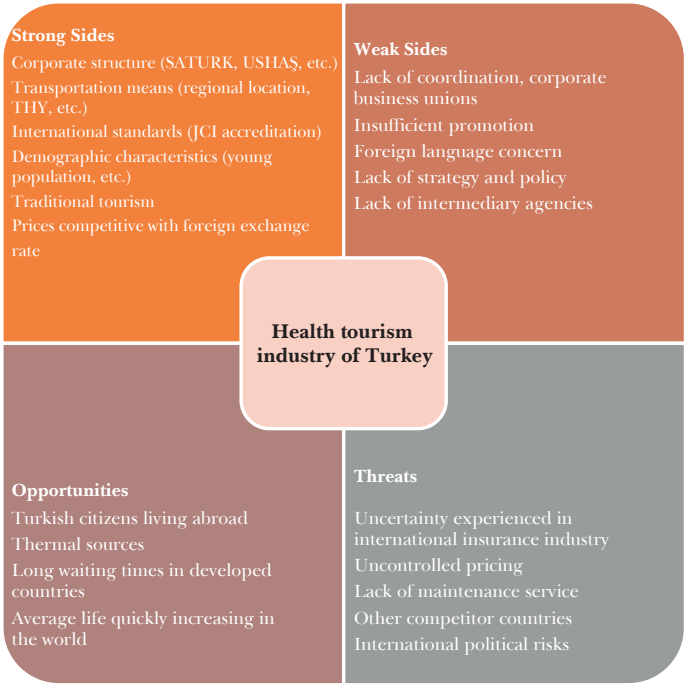
Following the saturation of the domestic tourism of the countries that have a high level of welfare with tourism potential; the international travelling got cheaper and easier, and as a result of the research opportunities offered by the information technologies, alternatives have been found in the international tourism industry and so the good quality and affordable tourism alternatives started to be preferred by the individuals. In terms of health tourism, the patient and patient's relatives had the chance to access information at a level to enable them to make a conscious preference on reaching reliable health service providers and the centres offering good quality and affordable, faster, and qualified health service. The health insurance companies have taken the economic health tourism alternatives into their portfolios to meet the above demands of the patient and patient's relatives, through purchasing services from different countries.

Turkey captures the attraction of the citizens of many countries with its relatively affordable and good quality health services. The closeness of our country to the regions with overpopulation and also high per capita income has contributed in the development of the Thermal Health Tourism by the opening of many five-star thermal hotels, and Medical Tourism through the city hospitals that are fully equipped with advanced technologies of the world, training hospitals, university hospitals, accredited private hospitals and the good quality health services provided by these hospitals.

In the presentation of the health services, Turkey is a candidate to get high shares from the health and thermal health tourism markets with its facilities having very well physical opportunities, full equipment, and advanced technology, as well as healthcare personnel offering good quality health service.

The corporate structure and young labour force, as well as the transportation opportunities, reveal the power of Turkey related to health services (Tontuş, 2017b; 2017d). In Figure 3, the SWOT analysis of Turkey in terms of health tourism is provided. At this point, the price advantages, thermal potential, short pending times, history and cultural heritage richness, customized health service offered over the world standards bring Turkey to the fore in health tourism.

Figure 3. SWOT analysis of health tourism in Turkey



Source: *Tontuş, (2017d)*

Tourism season can continue for 12 months in Turkey, and this allows the patients arriving for health tourism to also participate in other tourism activities. In this respect, health tourism is a type of tourism that should be discussed multidimensionally and for which a strategy should be generated for Turkey.

The framework of Health Tourism

While revealing the general framework of health tourism, it is useful to explain the relevant sub-topic terms. These are; health tourists, health tourism, the health of tourists, and tourism health.

1. **Health Tourist:** *A Health tourist* defines a person who travels to obtain health protection, improvement, and treatment of diseases or to receive health services due to any other reason;

2. **Health Tourism:** *Health tourism* means a scheduled travel or travelling for minimum 24 hours that is performed from the place of residence to another region or country by the health tourist or by the person to assist such person who will receive health service.
3. **Health of Tourist:** *Health of tourist* means the necessity to get urgent or unplanned health service during the travelling of the tourists who go from their place of residence to another country for travelling purposes.
4. **Tourism Health**: The health of the places where the tourists accommodate and visit, maintaining the health of such places, the measures taken for the health-related effect of the tourist on the environment and environment on the tourist are defined as *tourism health*.

The overall benefits of health tourism, which has positive effects on the economy, can be listed as follows. First of all, the income obtained from foreign tourists has an economic contribution to the countries. Furthermore, developing countries can provide some kind of resource transfer from developed countries. Tourism is one of the factors ensuring information sharing and cooperation between countries. Health tourism may create opportunities in other medical trade areas (Özer & Songur, 2012: 73-74). In this sense, health tourism has a wide interaction with the economy.

Increasing the number of old aged people, cost differences, developments in technology and transportation, quality network, increasing health expenditures, legal regulations, accredited health organizations, quality human resources, globalization of health and natural thermal resources are listed as the contributing factors of health tourism (Tontuş, 2017b). These contributing factors brings the advantages of Turkey's health tourism to the forefront. Because the increasing number of old aged persons and the cost advantage resulting from variables such as foreign exchange rate indicate that Turkey has an important potential.

In Turkey, the Ministry of Health established an upper organization for the health tourism and with the relevant attempts, realized legal and economic supporting and standardization studies, and today, organizations have been established with TÜSEB and the companies founded under TÜSEB. Furthermore, the relevant associations and associations, particularly SATURK, Uluslararası Sağlık Hizmetleri A.Ş. (US-HAŞ) work on the development of health tourism with various publications.

In health tourism India, Thailand, Singapore, USA, Malaysia, Germany, Mexico, South Africa, Brazil and Costa Rica, in medical tourism; Panama, Brazil, Malaysia, Costa Rica, India, in thermal tourism; India, Turkey, Malaysia and in SPA tourism; Hungary, Czech Republic, Austria, Bali and Maldives are the pioneer countries in wellness tourism. In particular, India is considered as the centre of medical tourism (Özer and Songur, 2012: 74-75). In this sense, Turkey has the potential to develop in medical tourism, thermal tourism and wellness tourism.

The increase in the world population, the improvement in the quality of life, the proportional increase of the old-age population and the increase in healthcare costs in various countries have directed the individuals to the countries where they can get better quality and relatively cheaper services (BAKA, 2011). In this context, Turkey, in the presentation of health services, has become a real health base in its region with the quality of its human resources, economic value and the use of advanced technology, as well the application of international standards. In recent years, thousands of patients, particularly from neighbouring countries, Central Asia, Middle East, African countries and many European countries, even from the USA, come to our country for the purpose of treatment. With its health tourism, Turkey has a robust country position towards becoming a centre of health.

Reasons of Health Tourism

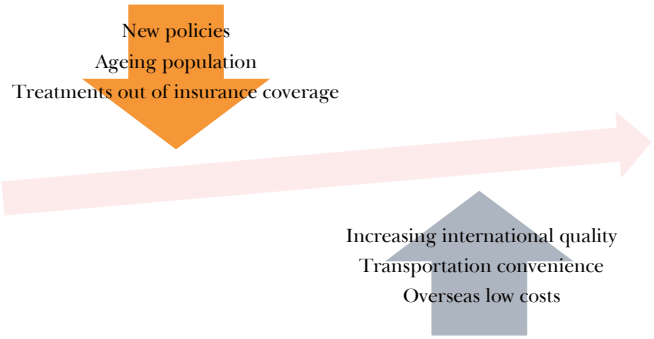
There are many factors that trigger health tourism and determine the need. These are listed by Tontuş (2015) with the following main topics:

- Avoiding long patient waiting lists
- Receiving cheaper health service with better quality in a shorter time
- Accessing to high health technology
- Desire of chronic patients, old-aged or disabled people to go to other places and to get treatment
- The desire of people with drug and different addictions to be in different or more appropriate places
- The desire of being treated, as well as travelling and doing cultural visits
- The desire of the person to attach to life and to live
- Increase in the rate of old-age population and chronic diseases in developed countries
- The patient's difficulty to access service in his own country than the other countries
- Opportunity to receive quality healthcare service for rare diseases with more appropriately in the other country
- The sick individual's need for healthcare during holiday or business trip
- The well-development of communication and transportation, since there are not enough health institutions in their country where they can benefit from health opportunities.

The above listed reasons should be analysed well to enable Turkey develop in health tourism. Following the recent pandemic, the successful health and crisis management of Turkey can be added to this list. The positive image owned by Turkey during this process should be used for being a centre in the health tourism.

When the preference reasons of the persons willing to get service under the scope of health tourism, it is seen that some factors play important role in the selection of country and place in health tourism. These factors can be summarized as new technology, quality of care, payment capacity, accessibility, convenience, safety, tourism element, privacy and surplus opportunities. In terms of preference, Turkey has all these features.

Figure 4. Growth of health tourism with effecting factors



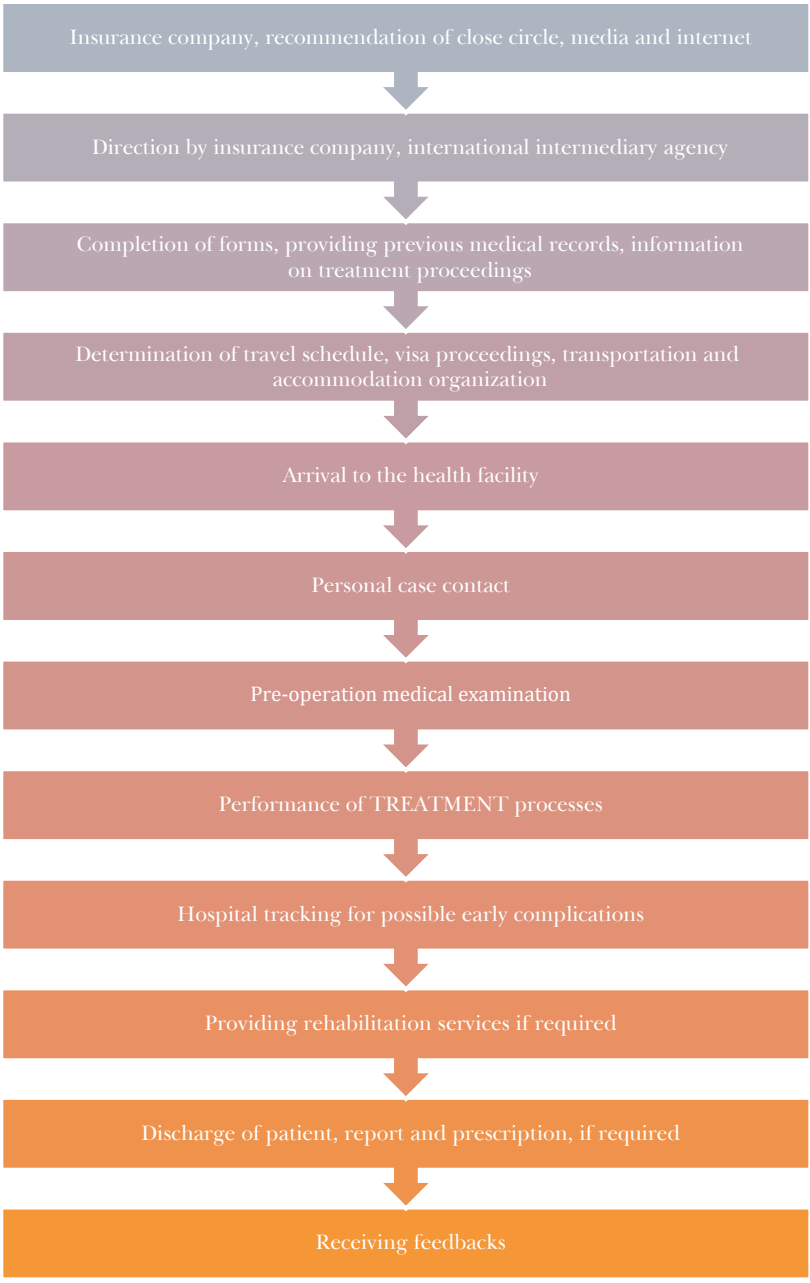
Source: *Tontuş (2017c)*

Although there is an important development potential, we encounter the problem on the cross-border transfer of health insurance rights, the accreditation problem of the professional individuals offering heath service, the problem on the management of the postoperative care and complications, the asymmetry and confusions in the malpractice laws, failure to keep or transfer the patient records digitally in the same standard in everywhere, cross-border travel problems, communication language problems, the problems arising from the cultural differences as the factors that avoid the development of the health tourism (Tontuş, 2017c). However, these problems can be eliminated with correct strategy and policies.

Types of Health Tourism

While some sources related to the health tourism handles the health tourism in two groups as medical tourism and thermal health and SPA & wellness tourism (Pollock & Willliams, 2000; Polat, 2008), some other sources review the health tourism under three topics as medical tourism, elderly and disabled tourism, thermal health and SPA & wellness tourism (Tontuş, 2017b). The general operation process of the health tourism accommodating various forms is summarized in Figure 5. Sometimes the tourism purposed accommodation of the patients can be included in this process.

Figure 5. Process experienced in health tourism



Source: *Tontuş (2017c)*

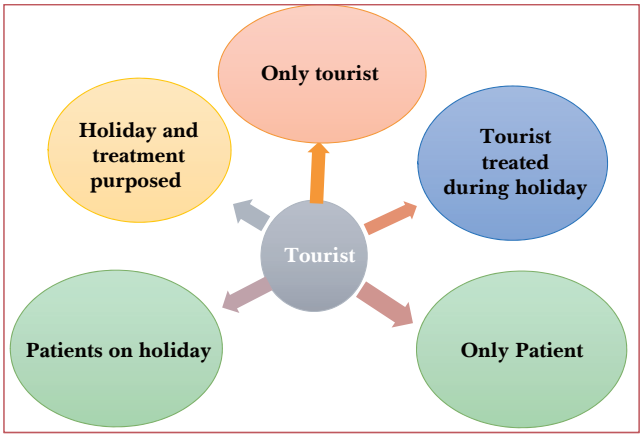
The Ministry of Health defines the health tourism as an alternative tourism type that accommodates medical tourism, elderly and disabled tourism and thermal tourism. In the analysis performed in this study, this classification of the Ministry of Health has been taken as basis. The reason of gathering the health tourism under 3 groups is that the elderly and disabled tourism became a type of tourism that provides important economic income for the countries and that is progressively developing. These tourism types has important economic share within the international tourism industry. Recently the importance paid by the countries to these tourism types increased and they found place within the state policies (Yıldız, 2017).

Medical Tourism

Medical tourism is one of the 3 important types of health tourism and it is defined in various ways. This tourism is a type of health tourism where international patients go to other countries from their own countries for the purpose of treatment, rehabilitation and care, and get service from the health institutions in that countries. It is a type of health tourism that accommodated more advanced treatments (cardiovascular surgery, radiotherapy, etc.), transplantation, infertility, aesthetic surgery, eye, teeth, dialysis treatments, etc. According to another definition, the medical tourism is the type of tourism where the people living in a country travel to another country for medical diagnosis, treatment and care, to get a higher quality service from the health services compared their own country or to benefit from cheaper health services compared their own country (Özsarı & Karatana, 2013). Cohen evaluated the concept of medical tourism over the purpose of tourists. According to Cohen, there are 5 different tourist groups as below per the purpose of the performance of health tourism. These are:

- The *tourist* went on holiday abroad without seeking any medical treatment
- The tourist requiring medical treatment while on holiday abroad
- The tourist who intend to benefit from the medical treatment and touristic activities at the same time abroad
- The tourist who want to benefit from touristic activities during the medical treatment abroad
- The tourist who are abroad only to get medical treatment

Figure 6. Tourism Groups in Health Tourism Activities



In medical tourism, there are significant differences in the treatment fees per the countries. The factors that are affecting the preference in medical tourism are affordable prices, quality health services and specialization. In the countries providing price advantage, India, in the countries providing quality health services, Singapore and Germany, in specialized healthcare services; in aesthetic surgery area Lebanon, and in the treatment of eyes, Turkey comes to the forefront. In order to get a significant share from the health tourism in the coming period by evaluating these data, a good competition environment should be created in favour of our country by determining the current policies in medical practices, diagnosis and treatment, and pricing. In particular, during a period where the pandemic process gives a lesson on the diversification of income sources to the countries, the return of the investments to be made by Turkey on the areas where there is a chance of global competition will be more in the following periods.

Along with the developing health services, Turkey has increased the number of tourist, and also the number of tourists coming for medical tourism. The individuals who receive service from our public and private hospitals within the scope of the health of tourists are the tourists who come to visit our country and receive planned health service or unplanned service whenever they need. This group has an important share in health tourism. Therefore, the health tourism cannot be considered separately from the general tourism and it is within the general tourism. This should be carefully evaluated by the representatives of the industry.

In order to continue the health tourism successfully and efficiently, the international patient registration unit established within the Ministry of Health should be arranged to include all public and private hospitals within the scope of the health tourism. Because, in order to determine the strategies for the next period, it is necessary to collect healthy data and analyse these data. After the pandemic, the evaluation of the data collected at the point of steps to be

taken for the health tourism, making use of them while creating the strategy and policy will increase the efficiency.

By the way, an important matter should be resolved in a shorter time. And it is related to the intermediary institutions, companies and tour operators that will bring health tourists to the universities and other public hospitals. Still no payment can be made since there is no legal regulation concerning the tour companies and tour operators, briefly intermediary companies that organize the bringing of the patients within the scope of international health tourism. This causes disruptions in the transfer of the patients coming from other countries within the scope of health tourism. The elimination of this problem, the issuance of a legal regulation for the payment of a certain service fee to the tour companies, tour operators and intermediary companies to continue the transfer of the patients within a system will have significant contribution to the number of tourists to come.

A New Dimension to Health Services: USHAŞ A.Ş.

Pursuant to the 663 numbered Decree Law paragraph 2 of the Annex 2. article put into enforcement by being published in the Official Gazette dated 03 August 2018 and numbered 30498, Uluslararası Sağlık Hizmetleri A.Ş. (USHAŞ) has been established for the purpose of directing the health tourism in our country, contributing the international relations in this area, granting authorization to the companies acting as intermediary, offering consultancy service, acting as intermediary, performing the promotion of the health system, carrying out and implementing projects, dealing with strategic activities within the scope of nationalization project for drug, medical device and materials, and providing effect to minimize the current deficit (USHAŞ, 2020).

The duties of USHAŞ are explained in five articles. These are:

1. To give license and authority certificate to institutions that act as intermediaries in the field of international health services.
2. To make international advertising and promotion of our country's health services, to coordinate, direct and support the promotion and information activities in this field.
3. To act as an intermediary agency for international health services, to conclude contracts for international health services on behalf of public and private sector organizations within the framework of the authority granted, to support the execution of contracts
4. To respond the applications for information on international health services, to take actions with the relevant authorities to resolve complaints and disputes, to determine the problems that may be faced by the parties and to take preventive measures.
5. To promote the health system of our country, to provide consultancy service to the international people and organizations with regard

to health systems, health financing and public-private cooperation models, to meet international demands, to make and implement projects for the establishment and development of systems in these areas.

Undertaken very important duties in the health tourism, USHAŞ's vision is defined as following:

- To assume a leading position in exportation of health services and public/private sector coordination within the country
- To strengthen the image of the Turkey by ensuring the effective promotion of Turkey's health capacities, opportunities and potential abroad
- To contribute and to develop strategies for increasing the quality and standard of health services provided abroad
- To assume a leading role in the exportation of health system and education

The number of health institutions and the intermediary agencies to which the authorization certificate has been granted by USHAŞ on behalf of the Ministry of Health since its establishment is as following according to 2019 data of the Ministry of Health, General Directorate for Health Services, Department of Health Tourism.

Table 1. Number of health facilities and intermediary agencies authorized by USHAŞ

Organization	**Number**
Number of Intermediary Agencies	57
Public Health Facility	100
Public University Hospital	22
Private Health Facility	533
Foundation University Hospital	20
Total Number of Organizations	**731**

The policies for enabling the certified companies, which will offer service in the health tourism of Turkey, to increase their activities after the pandemic for the purpose of having minimizing effect on the current deficit of the health tourism industry having high added value should be developed. The incomes given per patient vary both in terms of medical tourism and tourist health, as well as in terms of public and private sectors.

Among the reasons of Turkey's recent progress in the medical tourism, offering good quality medical diagnosis and treatment, surgical operation, as well as medical care services to the health tourists at world standards, even beyond the

world standards can be mentioned. In Turkey, of good quality health service is offered to the health tourists at the highest level and affordable price by the well-trained teams specialized in their own fields at the public and private health institutions having very good physical structure and equipment, as well advanced technology used medical devices and tools. Turkey is the leading country in the field of health in the region with this capacity.

Elderly and Disabled Tourism

Elderly and disabled tourism is a kind of health tourism where the care, rehabilitation and medical treatments of the elderly and disabled persons are together. This tourism shows itself as elderly tourism, elderly care services, treatment services in the clinical hotel, special care for disabled people and sightseeing tours. With the improvement of the health conditions and so the extension of the human life along with the developing technology, the rates of the diseases decreased, the rates of the people at an age of 65 and above increased within the community, therefore elderly tourism's customer portfolio expanded. Thus, an active and dynamic elderly population has formed in the world. The individuals in this age group are generally retired, therefore they have much leisure time and this reveals a potential tourism mass. Furthermore, the flexibility concerning the time has created an opportunity to be benefited by the elderly people in affordable tourism alternatives outside the season (Gülen & Demirci, 2011: 80; Soysal, 2017: 171). This opportunity ensures that tourism continues throughout the year. Also, a consistent and continuous tourism income circulation occurs throughout the year. With the increase in the rate of the elderly population, an elderly and disabled tourism requirement has occurred as a result of the demands for the health and care services and also the lack of regulations regarding many activities of disabled individuals, whose share within the total population in many countries is 10%, such as tourism, entertainment, trip, etc.

In the world, it is a known fact that the average age of the population in the developed and developing countries has increased rapidly in the recent years. The average living time has extended and the age average of the population has increased due to the decrease in the birth rates, the treatments found for many diseases along with the advanced technology and the improvement in the life quality standards in Japan and the developed countries located in North Europe (Tontuş, 2017b). Increasing average age creates a great potential for the elderly tourism. High exchange rate and the quality of the health services provides an advantageous position to Turkey in elderly tourism in the world. While the population increase slows down in the world, life expectancy increases, the ageing trend continues, and the elderly population rate, which was 8% in 2015, is expected to be 16% in 2050 (SBB, 2019).

In elderly and disabled tourism; clinical hotels, recreation areas, resorts and nursing homes have an important place. In elderly tourism activities and elderly care services; the rehabilitation services and occupational therapies

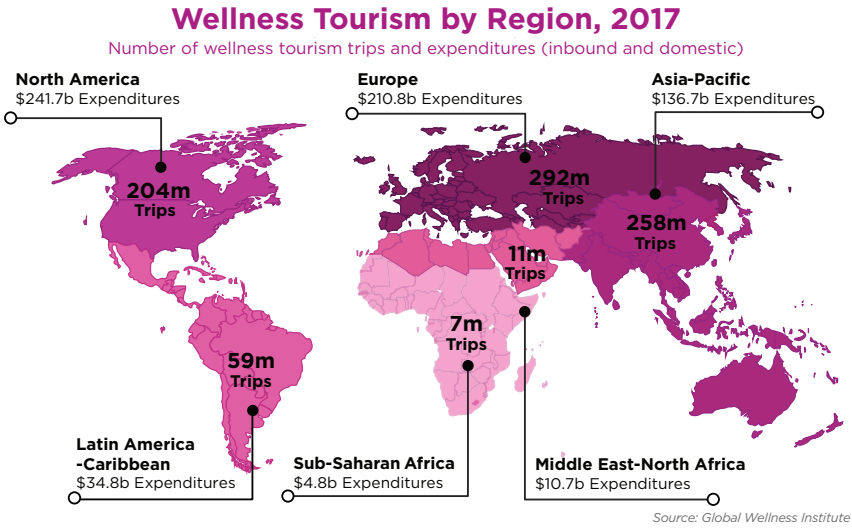
for disabled people and special care and sightseeing tours are held at clinical hotels. The elderly tourism has taken its place among the tourism types as an alternative tourism type that has an importance and potential in terms of diversification of tourism. According to the studies conducted, it is stated that the population above 65 in the EU countries will be more than the population under the age of 20 by 2025. While there are four working population per each old-aged person in the world today, this ratio is expected to fall below two by 2050. In addition to this, the elderly tourism is directly related to the disabled tourism, because disability is generally directly related to the elderly (Tontuş, 2017b).

Thermal Health Tourism and SPA & Wellness

Thermal health tourism and SPA & wellness is defined as a type of health tourism where some complementary medical applications such as medical massage, peloid, etc. are carried out together with thermal springs and/or hotel services. Thermal health tourism, in addition to various methods such as thermo-mineral hot water bath, mud bath, etc., covers the cure treatment applications made by combining climate cure, physical therapy and rehabilitation, exercise, psychotherapy and diet, etc. supportive treatments, as well as the entertainment and recreation purposed use of thermal waters. In general, centres providing health service with water are defined as SPA. According to the World Health Organization, wellness is a method that relieves and heals people physically, mentally and socially as well as treating the disease or weakness. Thermal health tourism and SPA & wellness are performed for the purpose of relaxation physically, mentally and socially, as well as treating some of the diseases. Wellness tourism is the performance of physical and psychological activities in order to promote health and well-being. In this regard, the travels to places that will motivate them in order to improve or protect their health is defined as wellness tourism (Mueller & Kaufmann, 2001; Soysal, 2017: 171).

The total share of the wellness tourism in the world is reported as $639.4 billion under the light of the forecasts of 2017. Europe, including Turkey, is the most visited region/Continent and ranked second with an expenditure of $210.6 billion. Turkey is ranked 8th in Europe for tourism income in this area (Global Wellness Institute, 2018).

Map 1. Wellness tourism per regions



Source: *Global Wellness Institute (2018)*

The health service categories and the characteristics of the persons benefiting from these have been summarized in Table 2 according to the types of health tourism reviewed in 3 main topics.

Table 2. Health services offered in health tourism and characteristics of benefited tourists

	Health improvement oriented services	**Treatment oriented services**	**Rehabilitation services**
Beneficiaries of service	- Medium and upper level income group - Healthy - Low-health risk - All age groups	- Medium and upper level income group - Healthy as to travel - Variable health risk - Medium and Above age group	- Upper level income group - Special requirements - Low to medium-level health risk - Old aged - Drug addicted
Capacity requirements of health services	- A good basic health service - Increasing expectation for hospital services	- Specialized physician - Various requirements from interventions to supportive treatments - High-level technology	- High-level technology - Specialized physician - Basic health services - Therapeutic interventions
Time	- Variable	Foreseeable - Short and traceable	- Long - Variable

Source: *Özsarı & Karatana (2013: 138)*

Opportunities of Turkey

The roadmap listed above will also be a guide for the determination of the strategies for all areas of health tourism. It is obvious that the service industry is one of the most affected industries in the pandemic process where the economies of the countries are ultimately damaged. Tourism is one of the areas that mostly affected by this situation within the service industry. Turkey is pointed out as one of the leading countries in the field of health with its success in the management of COVID-19 pandemic and left very positive influence throughout the world. During a period where the people would like to socialize by avoiding short-term doubts after the pandemic, Turkey may be a pioneer country of the world in the health tourism by merging its corporate success and natural potential. In the economic road map to be followed in the new period, wider place should be given to the health tourism and a consultation should take place with all stakeholders, including public and private sector, in terms of strategy and policy development.

Turkey has significant opportunities to obtain more income from health tourism. These can be listed as new technology, quality health and care service, affordable payment cost, accessibility, safety, tourism element, privacy and new market opportunities. When the quality level of health tourism in Turkey is taken into consideration, it is among the countries that are in the best position in the world. Particularly with the "Health Transformation Program" actualized in 2003, many regulations have been performed to make the presentation of health services in Turkey more effective, efficient and accessible, be at modern level and more qualified. Same level of health service is managed to be offered through the new hospital facilities constructed in all regions of Turkey.

Following the commissioning of Department of Health Tourism established in 2010 and USHAŞ established in 2018, Turkey points out that it has institutionally adapted the health tourism policy. Along with this, under the eleventh development plan, many plans and policies specific to health tourism have been published within the scope of increasing the diversification and qualification of the tourism services within the sustainable development plan. The qualified public hospitals constructed in each city, the physical structure equipped with the advanced technology owned by the private sector, the accredited hospitals having qualified health personnel, five-star hotels in cities convenient for medical tourism offer economic and qualified service to the health tourists. With the employment of trained health personnel speaking foreign language and opportunity to commission foreign physicians, Turkey can be compared with European countries.

When all these investments are taken into consideration, Turkey has new market opportunities in health tourism in the new period. Offering cost advantage, opportunity to travel and qualified technological infrastructure in the world health tourism, Turkey comes at the top of the preferences of international patients. Within 2023 health vision and government program, it is targeted to continue the cooperation with the other countries and international agencies

in the field of health, to make Turkey a centre of attraction in its region and to increase the cross-border health service presentation capacity (Soysal, 2017: 175). Having the advantage of accessibility due to its geographical location, Turkey has direct flights to many regions as a result of the investments made in airways. In particular, there are daily flights to Turkey from neighbouring countries. When this situation is considered, the number of foreign tourists can be increased with the comprehensive packages from health services to flight services. For this, all institutions must be in cooperation and coordination.

Within the scope of health tourism, Turkey has serious superiorities in some areas particularly in the medical tourism. The branches for which Turkey admits frequent international patient are the internal diseases, orthopaedics, eye diseases, gynaecology and obstetrics. In addition to this, it should be emphasized that, compared to the other countries, Turkey is the country that the most eye surgery related foreign patients are admitted. Concerning eye diseases, particularly *(excimer laser* surgery, front camera surgery, retina surgery, squint surgery, etc.) upper specialization branches have been ultimately developed in our country. When it is considered that the tourists who prefer Turkey for eye operation stay in the country averagely for 45 days, how an important economic benefit does the medical tourism provide can be understood. Also, it can be expressed that Turkey has a relatively superior position compared to the other countries in the medical tourism in terms of aesthetic surgery, particularly hair transplantation (Soysal, 2017: 180). Furthermore, with the recent situation of the exchange rate has brought Turkey to a quite advantageous and competitive position in terms of costs in health services.

Conclusion and General Evaluation

We can briefly list below the steps to be taken and the strategy to be followed by Turkey in order to have the deserved share in the world's health tourism market, and within the scope of year 2023 targets, to reach 2 million of health tourists and an income of $20 million in health tourism, 500 thousand beds, 15 million of tourists and an income of $750 million in thermal health tourism, to be the world's most important and Europe's number one thermal tourism destination, to be ranked at the upper levels we deserve in the global wellness tourism, and to have 10.000 beds capacity, 150.000 tourists and an income of $750 million in the elderly tourism. On the other hand, the tourism is the one of the most affected sector with the meaures in pandemic such as physical distance, quarantine, and curfew. The tourism, which has a fragile feature, is a sector that interacts with many different sectors and has a wide spectrum in terms of employment. Tourism is a sector that interacts with many different sectors and has a wide spectrum in terms of employment. For this reason, the process of pandemic in Turkey, as in the whole world also faced a serious crisis and challenge (Şeker et al., 2020). However, the serious measures taken in health and tourism policy and the intense efforts in international level have been made for the sustainability of the sector.

- The tourism industry, Ministry of Health and private health institutions should take steps together, ensure complete coordination and actualize the integrated practices.
- The majority of the patients coming for treatment to Turkey arrives in the summer months. Therefore, health services and tourism are carried out together. In this respect, two types of services should be evaluated together.
- Importance must be paid to the training of the service providers and interpreters in order to understand the international patients correctly and to provide the correct service to these patients.
- The medical practice and care costs are 50% to 60% cheaper in Turkey when compared to other countries. The promotion of this cheap service delivery should be made better all over the world.
- While the average income per patient is between $2-4 thousand within the scope of the health of tourist, this income varies between $9-12 thousand in the medical tourism. According to one general tourist, the average income per patient within the scope of the health of tourist is 3-6 times, and this is 14-19 times in the medical tourism (TÜRSAB, 2014: 4; Aydın, 2014:9).
- As can be seen here, our country should make good use of this industry by performing a good evaluation of the health tourism with high added value.
- 40% of foreign patients pays importance to advanced technology and 32% to of quality care (Ehrbeck et al., 2008:4). At the cost point, when it is considered that Turkey is already advantageous in this regard, the status of having advanced technological equipment and quality in this regard should always be protected.
- Our country, in addition to the compulsory medical practices, is an important destination among some other services such as hair transplantation and aesthetics. These opportunities should be used at the highest level.
- Making payment to the intermediary agencies that bring patients to the official institutions should be clarified and necessary legal regulations should be made in the health services.
- The international cooperation should be increased through the effective promotion and marketing in the field of health tourism.
- The cooperation with the public and private sector should be increased in the field of promotion and marketing.
- It is useful to establish a tourism insurance system for the continuity of different commercial activities that provide an important input in terms of productivity and employment in the tourism sector.

In addition to the articles listed above, bilateral agreements should be well-evaluated with the economic and political relations, the geographical and cultural proximity, long waiting times in the relevant country and inadequacy in health services, and competitive prices. In addition to these, in order to get the desired share from the target market; a robust health tourism portal, advertisement, participation in fairs, congresses, trade and purchasing committees, B2B meetings, digital marketing and health tourism related information stands should also be used in the most effective manner.

The maritime tourism that generally generates a lower income compared to the alternative tourism types is still dominant. Besides the mass tourism with low added value, the development of health tourism with high added value by developing special programs will attract the tourists bringing high income to come to our country. Turkey should evaluate each opportunity in an efficient and effective manner in order to reach the economic targets.

As a result, it is understood once again that tourism, which is a fragile sector and a part of the entertainment sector and cultural relations at the international level, can only survive in such crises with special policies and supports.

References

Aydın, D. (2014). *Türkiye Sağlık Turizmi Cep Kitabı*. Visitturkeyforhealthcare Platformu. Retrieved from: http://www.ipsa.org.tr/upload/kitap/visitturkeyforhealthcare-pocket-book-tr.pdf

Batı Akdeiz Kalkınma Ajansı – BAKA (2011). *Sağlık Turizmi Raporu*. Antalya.

Cohen, E. C. E. (2008). Medical tourism in Thailand. *AU-GSB e-journal, 1*(1). 24-37.

Ehrbeck, T., Guevara, C., & Mango, P. D. (2008). Mapping the market for medical travel. *The McKinsey Quarterly*, 11.

Global Wellness Institute (2015). *The Global Wellness Tourism Economy 2013 & 2014*. Retrieved from: https://globalwellnessinstitute.org/wp-content/uploads/2018/06/GWI_2013_and_2014_Global_Wellness_Tourism_Economy_Report_Final.pdf

Global Wellness Institute (2015). *Global Wellness Tourism Economy November 2018*. Retrieved from: https://globalwellnessinstitute.org/industry-research/global-wellness-tourism-economy

Gülen, K.G. ve Demirci, S. (2011). *Türkiye'de sağlık turizmi sektörü*. İstanbul Ticaret Odası Yayınları. Yayın No: 2011-39. İstanbul.

Kültür ve Turizm Bakanlığı. (2007). Termal Turizm Master Planı (2007-2023). Retrieved from: http://www.ktbyatirimisletmeler.gov.tr/Eklenti/21666,ttmp.pdf?0

Mueller, H., & Kaufmann, E. L. (2001). Wellness tourism: Market analysis of a special health tourism segment and implications for the hotel industry. *Journal of vacation marketing, 7*(1), 5-17.

Özer, Ö., & Sonğur, C. (2012). Türkiye'nin dünya sağlık turizmindeki yeri ve ekonomik boyutu. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 4*(7), 69-81.

Özsarı, S. H., & Karatana, Ö. (2013). Sağlık Turizmi Açısından Türkiye'nin Durumu. *Journal of Kartal Training & Research Hospital / Kartal Eğitim ve Araştırma Hastanesi Tip Dergisi, 24*(2), 136-144.

Polat, D. (2008). *Türkiye'nin Sağlık Turizmi Tanıtımında Perspektifler: Almanya ve Hindistan Örnekleri*. T.C. Kültür ve Turizm Bakanlığı Yayımlanmamış Uzmanlık Tezi.

Pollock, A., & Williams, P. (2000). Health tourism trends: closing the gap between health care and tourism. *Trends in outdoor recreation, leisure and tourism.* CABI Pubslishing. 165-173.

Soysal, A. (2017). Sağlık Turizmi: Tehdit ve Fırsatlar Bağlamında Türkiye Açısından Bir Durum Değerlendirmesi. ÇATALHÖYÜK Uluslararası Turizm ve Sosyal Araştırmalar Dergisi, 2, 169-187.

Strateji ve Bütçe Başkanlığı – SBB (2019). On Birinci Kalkınma Planı (2019-2023). Retrieved from: http://www.sbb.gov.tr/wp-content/uploads/2019/07/OnbirinciKalkinmaPlani.pdf

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). Covid-19 Küresel Salgın Değerlendirme Raporu. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34.

Tontuş, H. Ö. (2015).*Tüm Yönleriyle Sağlık Turizmi Ülkeler*. T.C. Sağlık Bakanlığı Sağlığın Geliştirilmesi Genel Müdürlüğü, Ankara.

Tontuş, H. Ö. (2017a). *Sağlık Turizminin Tarihçesi*. SATURK Yayınları. Retrieved from: http://www.saturk.gov.tr/images/pdf/tyst/01.pdf

Tontuş, H. Ö. (2017b). *Sağlık Turizmi Nedir?*. SATURK Yayınları. Retrieved from: http://www.saturk.gov.tr/images/pdf/tyst/02.pdf

Tontuş, H. Ö. (2017c). *Dünyada Sağlık Turizmi.* SATURK Yayınları. Retrieved from: http://www.saturk.gov.tr/images/pdf/tyst/03.pdf

Tontuş, H. Ö. (2017d). *Türkiye'nin Sağlık Turizmindeki Önemi.* SATURK Yayınları. Retrieved from: http://www.saturk.gov.tr/images/pdf/tyst/06.pdf

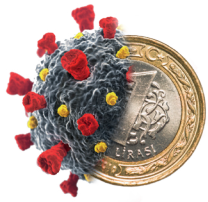
Türkiye Seyahat Acentaları Birliği – TÜRSAB (2014). *Sağlık Turizmi Raporu*.

Uluslararası Sağlık Hizmetleri A.Ş. – USHAŞ (2020). USHAŞ Retrieved from: http://www.ushas.com.tr/

World Tourism Organisation – UNWTO (2015). *International Tourism Highlights 2015 Edition*. İspanya.

World Tourism Organisation – UNWTO (2020). *UNWTO World Tourism Barometer*. İspanya. DOI: https://doi.org/10.18111/wtobarometereng

Yıldız, A. (2017). *Türkiye'de Termal Sağlık ve Spa Wellness Turizminin Geliştirilmesine Yönelik Model Önerisi: Yalova Termal Kaplıcaları*. T.C. Kültür ve Turizm Bakanlığı Yayımlanmamış Uzmanlık Tezi.



The Effects of COVID-19 Outbreak on Supply Chains and Logistics Activities

Gül Senir

Arzum Büyükkeklik

Res. Asst. Gül Senir

Gül Senir graduated from Uludağ University Faculty of Economics and Administrative Sciences, Business Administration in 2010. In 2014, he completed his graduate studies in Niğde Ömer Halisdemir Üniversitesi Production Management and Marketing and started his doctorate education. He has been working as a research assistant in Niğde Ömer Halisdemir University Faculty of Economics and Administrative Sciences, Department of International Trade and Logistics Management since 2016. She has national and international articles and papers published in the fields of marketing and logistics.

Assoc. Prof. Arzum Büyükkeklik

Assoc. Prof. Arzum Büyükkeklik completed her Ph.D. in Production Management and Marketing and was appointed as a lecturer at the Department of International Trade and Logistics Management of Niğde Ömer Halisdemir University. She was promoted to associate professor position at Niğde Ömer Halisdemir University in 2018. Having many national and international articles and papers published in the fields of production management and logistics, she took part in public institutions and organizations' projects and scientific research projects. Dr. Büyükkeklik has been a member of the Executive Committee of the Women Entrepreneurs in Niğde Chamber of Commerce and Industry since 2011. She also fulfilled administrative duties such as being university quality coordinator, assistant director of the Graduate School of Social Sciences, and vice president of the Department of International Trade and Logistics Management.

The Effects of COVID-19 Outbreak on Supply Chains and Logistics Activities[1]

Gül Senir
Niğde Ömer Halisdemir University
gul.senir@ohu.edu.tr

Arzum Büyükkeklik
Niğde Ömer Halisdemir University
aabuyukkeklik@ohu.edu.tr

Abstract
A virus called COVID-19, which emerged in Wuhan, China in December 2019, crossed the country's borders and was on the global agenda in a short period of time. In order to reduce the speed of the spread of the pandemic, the quarantine practices and curfews of countries caused significant breaks both in the countries' economies and in the global economy. The COVID-19 outbreak showed the vital importance of supply chains and logistics as well as the commercial deficiencies of the globalizing world and increased the need for reliable supply chains. During the pandemic process, it has been understood that all supply chains and logistics operations should function flawlessly from supply to production, warehouse operations to transportation, e-commerce to cargo and courier services in order to reach food, health, cleaning and all other basic consumer products easily and quickly.

The aim of this study is to evaluate what happened in the supply chains and logistics operations with the COVID-19 outbreak and to develop predictions about possible changes for these areas after the pandemic. The effects of pandemics on supply chain, logistic sector, and especially logistic activities in Turkey are examined. The measures taken for the logistics sector, the expectations of the sector, and the possible changes in supply chains and logistics activities for post-pandemic period are discussed. It is thought that the localization for the supply chains, easy access to suppliers and customers, flexibility, dynamism and digitization will be areas for improvement after the pandemic. The contactless transport models; multi-location, dynamic, low-cost storage approaches; improving communication in logistics services; digitalization; cargo services adapting quickly to demand fluctuations will come to the fore as the topics to be developed in the logistic sector. It is thought that supply chain in health, humanitarian logistics, reverse logistics, closed-loop supply chain issues and the sustainability of supply chains will be areas to be studied and focused by both practitioners and academicians in the post-pandemic period.

Keywords
COVID-19, supply chain, logistics

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The COVID-19 outbreak that occurred in China in December 2019 and spread all over the world in a short time like 3 months affected all countries with sudden deaths. Implications concerning the absence of a vaccine for the virus as well as the resistance of the virus to treatment processes have forced countries to take measures to reduce the spread of the outbreak and its burden on the health system. The precautions that started with suggestions of not being present in crowded places where people socialize because the virus is transmitted by personal contact and airway have continued with measures such as the closure of these places and the prevention of crowds in closed environments. However, since recommended precautionary measures failed to be adequate and mortality intensified in some cities, regions and countries led authorities to opt for more radical measures.

The most important measures against the outbreak were quarantine and curfews. They were initially implemented in local areas such as neighborhoods and villages, but then expanded to region and nationwide as the epidemic increased in severity (Yu, Sun, Solvang and Zhao, 2020). Citizens all around the world have been forced to stay at home, and as a result, demand for goods and services have dropped suddenly. COVID-19 epidemic brought radical changes in economic and social life, and almost every sector excluding medical products, food and IT sectors, was negatively affected and disrupted by this outbreak. Especially transportation, tourism, automotive, energy, metal, electronics, and non-food retail sectors are the ones that suffered the most (Ivanov and Dolgui, 2020). Due to inter-sectoral interaction and goods/services exchange, setbacks, or standstills in one sector spread rapidly to other businesses and sectors. As a result, an unprecedented type of crisis in which supply and demand shocks occurred at the same time has been developed (Karakaya, 2020).

As the epidemic progressed, the fragility of supply chains has been manifest. The chains suffered from a two-sided damage both due to the decrease in demand in the end customer, where the pull effect is created, and the difficulties in the supply of raw materials and parts. The disruption of the activities of companies in the sectors producing goods/services has been reflected in their supply chains and led to their rupture.

While governments and health institutions are working hard to stop the spread of COVID-19 and treat infected people, manufacturers in many industries are struggling to manage the growing impact of the outbreak on their supply chains (Majid, 2020). In this context, in order to survive through the epidemic process and to recover quickly at the end, the presence or absence of risk-mitigating inventories, subcontractor capacities, alternative suppliers, backup transportation infrastructures, multi-channel distribution systems, flexible production systems, data-oriented and real-time monitoring and visibility systems in supply chains stand out as issues that need to be addressed (Ivanov and Dolgui, 2020).

Due to the epidemic, the disruption of supply chains and the closure of national borders have created a domino effect which in turn affected the logistics sector drastically. Logistics activities, ranging from customs transactions to transportation modes, from cargo and courier services to storage operations, have been affected by the outbreak, but have also become more open to alternative business models and practices.

This study aiming to investigate the effects of the COVID-19 epidemic on supply chains and the logistics sector intends to discuss the circumstances in these areas specific to Turkey, and evaluate the measures taken regarding the logistics sector during the epidemic process, the expectations of the industry, and possible changes for supply chains logistics activities after the end of the epidemic. However, it should be noted that the evaluations here will be limited to highlighting the issues deemed to be important, considering that the outbreak has not yet ended on the date this study was composed.

After this introduction, in the first part of the study, which consists of four main parts, the circumstances in supply chains due to the COVID-19 epidemic are evaluated and projections are made for the post-epidemic period. In the second part, the impact of the epidemic on the logistics sector and its operations, the expectations of the sector and possible changes for the post-epidemic period are discussed. The study is completed with the conclusion part in which areas of supply chains and logistics activities that may be improved and require particular focus are underlined.

Supply Chains in the COVID-19 Epidemic and Projections for the Post-Epidemic Period

Effects of the COVID-19 Epidemic on Supply Chains

Supply chains are structures that encompass the whole process starting from raw material supply up to the end of the delivery of a product/service to the customer, including the transformation into finished product and distribution to retailers or directly to end users. These chains are systems in which a number of business processes are synchronized and integrated between various business units such as suppliers, manufacturers, third party service providers and distribution channel participants (Min and Zhou, 2002). According to this definition, well-planned, synchronized and properly-functioning supply chains are necessary for companies in order to provide customers with goods/services free of problems. Management of supply chains is especially critical for companies operating globally.

In case of being dependent on imports in raw materials and parts supply, emergence of unexpected events that adversely affect these forecasts in terms of planning the supply chain based on sales forecasts, problems in which multiple participants (suppliers, manufacturers, retailers, customers etc.) of the chain are affected, interruptions and disruptions may occur in supply chains. While supply chains are often able to create sufficient inventory to function during these periods when production and supply are at a standstill, in a global and comprehensive outbreak like COVID-19 they have failed to function (Craighead, Ketchen and Darby, 2020). The heavy impact of the economic and social circumstances that emerged with the outbreak not only affected many sectors and businesses but also caught the supply chains off guard. This epidemic underlined the importance of supply chain management and made the shortcomings of supply chains more obvious.

The impact of the COVID-19 epidemic on supply chains is quite different from typical supply chain interruptions experienced in terms of scope, extent and disruptive aspects (Craighead, Ketchen and Darby, 2020). This epidemic did not occur in a particular geographic region or in a certain sector but affected all countries and sectors. Its impact has proceeded from regions to countries and from one sector to another with an effective spread like a domino effect. The disruptive power of the epidemic acting on supply chains is strong enough to force supply and demand to excessively high or low levels. For example, whereas there is excessive demand for medical supplies, hygiene products, foods and home delivery services and e-commerce rises incredibly, the demand in many other sectors (tourism, automotive, furniture, construction, etc.) is low enough to paralyze companies.

Global supply chains were disrupted as a result of decreased production capacity due to the decline in global consumption and the cessation of the operations of production companies in China, the Far East and European countries. Experts indicate that the global supply chain is bilaterally affected by

China's shutdown of intermediate and final goods production activities. First, due to the problems in the supply of final products and intermediate goods, companies whose final products come from China had to close their sales stores. Manufacturing companies that could not procure the necessary raw materials and parts for their production had to either stop their production or find alternative suppliers from different geographical regions. For example, the automaker Hyundai based in South Korea declared on February 5 2020 (within two months of the outbreak), that it was unable to supply intermediate goods from China and that it had to close all automobile factories in the country and remain closed until finding new suppliers (Dağlı, 2020). A similar situation has taken place in luxury products such as Swiss watches, as manufacturers faced problems in the supply of parts. Toy manufacturer Hasbro announced that it had difficulty in providing products to the market since it procures almost 70% of its products from China (Fernandes, 2020). LPP company, a fashion manufacturer in Poland, declared that in case of continued delays in Chinese productions, they would contact factories in Turkey, Bangladesh and Vietnam. It is possible to say that even a simple product like ketchup produced in Sacramento Valley in America is globally dependent on bottle caps from China (Sanders, 2020). In a study by Deloitte, it was reported that global automotive production decreased by 40% in 2020 compared to March 2019, and global maritime traffic by 10% compared to February 2019. In addition, it was indicated that more than 200 of Fortune 500 companies have suppliers in Wuhan which is the early epicenter of the epidemic, the world's largest 1000 supply chains had more than 12,000 plants (factories, warehouses, etc.) in the quarantine areas and about 94% of Fortune 1000 companies experienced disruptions in the supply chain due to the COVID-19 epidemic (Ivanov and Dolgui, 2020).

The second effect of the situation in China was on the consumption side. As China is the second largest market for goods and services in the world, the decrease in production and consumption as well as trade with and touristic trips to other countries became another reflection of the epidemic. The fact that trade was weakened by the closing of borders, and that countries such as China and India, both seen as large consumer markets, were not able to create demand for sectors other than food retail, and that touristic accommodations had to remain vacant due to lack of Chinese tourists are other reflections in that respect.

Projections Regarding Possible Changes in Supply Chains in the Post-Epidemic Period

It is generally assumed that changes will occur at the global scale in supply chains and logistics activities with the passing of the initial shocks created by the COVID-19 epidemic and the commencing of controlled normalization process. These changes for supply chains can be explained under the headings of localization of supply, easy access to suppliers and customers, flexible approaches to product diversity and stock management, dynamism, and digitalization.

In the post-epidemic period, companies will keep in mind that all stakeholders in the supply chain they are involved in are affected by the outbreak, and will try to identify alternative suppliers, logistics service providers and distribution channels. In many sectors ranging from food to textile and to electronics, companies are expected to diversify their resources in supply and engage in efforts to create local alternatives where appropriate. For example, even at the beginning of normalization, some American companies have shifted some of their production activities from China to Vietnam and started to increase local purchases (SAM, 2020). Although it is not possible to think that the dependence on China which achieves nearly 30% of the world production will disappear completely after the epidemic, every decrease in this rate will cause a significant mobility both in search of alternative regions for production and in the domestic production economy of Europe. The manufacturers and the logistics sector in Turkey is also expected to acquire a share from this mobility as well. Especially the companies in global supply chains are expected to spread their supply, production, warehouse and sales activities to different regions and even continents as much as possible, so as to be able to preserve their supply chain in unexpected risk situations such as disasters, epidemics, etc.. Even extreme models such as co-opetition will be among the strategies which companies can implement in these issues such as ensuring supplier diversity (Sanders, 2020).

On the other hand, disruptions in the supply chains experienced during the epidemic showed that shorter and more flexible supply chains are needed. Supply chains or manufacturing facilities worldwide will need both flexible designs and flexible supply chains to have cross-product manufacturing systems that can easily switch to different products (for instance, from cars to ventilators, from electronic products to respiratory devices, from apparels to surgical gloves, protective clothing or masks, etc.). For example, the chemical company DuPont accelerated the production of protective clothing at its Richmond Factory with the COVID-19 Epidemic (Sanders, 2020). Similarly, in the past, when the SARS Epidemic occurred in 2003, a Toronto-based lotion manufacturer quickly switched its production from lotions to hand sanitizers.

In order to create flexible supply chains in extraordinary situations, stocks, demand and supply conditions, production and purchasing schedules must be clearly known and visible throughout the supply chain (Sanders, 2020). In such situations, fast and accurate information flow is paramount (Tanyaş 2020). Supply chains which ensure open and continuous communication with customers about the emergency action plans provide advantages for businesses (Büyüközkan, 2020). Thus, it can be guaranteed that supply chains remain prepared and dynamic so as to reduce negative effects as much as possible in extraordinary setbacks such as epidemics or major disasters, or global economic crises.

Before the world faced the COVID-19 epidemic, especially in the last two decades, supply chains were planned with just-in-time production approaches, where stock levels were kept minimal, and stock costs were aimed to be

minimized throughout the supply chain. However, it has been understood that this approach excessively reduced the flexibility of companies in the epidemic. In the post-epidemic period, it will be almost impossible for companies to maintain managerial approaches requiring minimum stock, such as lean supply chain and just-in-time production system. It is considered that companies paying a heavy price for not being flexible during the epidemic will review their strategies after the epidemic and re-evaluate their stock levels in terms of quantity and warehouse location (Brakman, Garretsen and Witteloostuijn, 2020). Companies that keep their stock levels minimal by producing with just-in-time approach, especially in assembly products such as automotive and electronics, may switch to new stock-keeping models after the epidemic so as to be able to adapt to unexpected demand changes. In this regard, companies may be suggested to create diverse models related to stocks, to evaluate and classify their stock items in terms of criteria such as the limited alternative sources of supply and the length of lead times, and to formulate policies accordingly (Sanders, 2020).

Although the disruptions in supply chains are similar to the situation across the whole economy, there has been a two-way disruption in the supply chain. The disruption on the consumer side affects both the general economic situation and the supply chains as a whole. Intensified use of digital media by consumers who could not leave their homes due to the epidemic led to an increase in the volume of e-commerce and the retail sector to gain importance. On the other hand, the necessity of increased digitalization has led to consumer's increased information requirements regarding both purchasing (information/decision processes) and supply processes. This rapid digitalization process concerning consumers will also require the entire supply chain to adapt to it. In the post-epidemic period, it will be inevitable to increase automation and artificial intelligence investments in supply chains, to use information and communication technologies more intensively and to increase relevant technological capabilities. However, cyber security investments are likely to increase as cyber risks increase with digitalization.

Logistics in the COVID-19 Epidemic and Projections for the Post-Epidemic Period

Effects of COVID-19 Outbreak on Logistics Sector

Like all sectors operating at global level, the logistics sector is also under the influence of the COVID-19 epidemic. The setbacks in the commercial activities of all countries brought the logistics sector, which acts as a sort of bridge between manufacturers and consumers, face with uncertainties and risks. Although the effects of the epidemic on the logistics sector are multifaceted, they become manifest in the form of disruptions and blockages especially in freight transportation activities and in cargo services (the lack of capacity, inability to meet the demand and a decrease in service quality).

Like in all countries in the world, the negative impact of the epidemic on trade has emerged more evidently in March 2020 in Turkey. According to the Turkish Ministry of Commerce data presented in Table 1, there is a serious decline in exports in March. This is mainly due to the quarantine measures implemented in the customs of Turkey's neighbours (Iraq and Iran) and decreasing demand in Europe which is affected a lot by the epidemic. This decrease led to a negative growth of exports as of the 3-month period, which initially increased by 4.1% in the first 2 months of the year. Exports in March decreased by 17.81% compared to March 2019, while imports increased by 3.13%. In addition, foreign trade volume decreased by 6.76% compared to the previous year and reached 32 billion 247 million dollars.

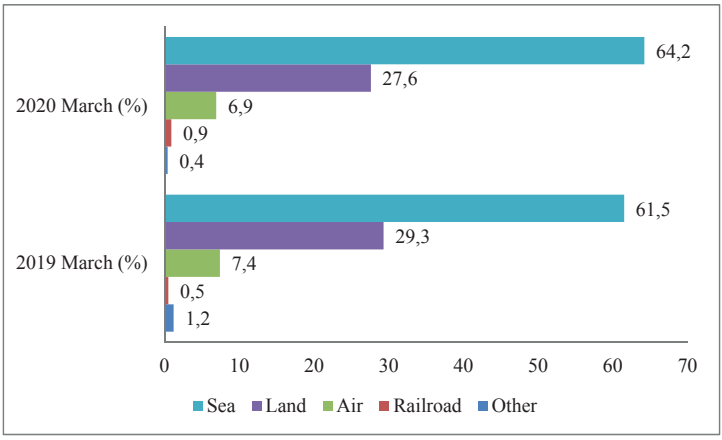
Table 1. Turkish Trade Ministry Foreign Trade Data (Million Dollars)

Foreign trade	March			January- March		
	2019	2020	Change (%)	2019	2020	Change (%)
Export	16.336	13.426	-17,81	44.534	42.783	-3,93
Imports	18.250	18.821	3,13	50.472	55.662	10,28
Foreign Trade Volume	34.586	32.247	-6,76	95.006	98.446	3,62
Foreign Trade Balance	-1.915	-5.395	181,79	-5.938	-12.879	116,89
Export/Import Coverage Ratio (%)	89,5	71,3		88,2	76,9	

Source: *T. C. Ministry of Commerce March 2020 Data Bulletin.*

Considering the export data presented in Chart 1 according to transportation modes, the most heavily used mode in Turkish foreign trade in March 2020 was sea transport. While most exports were made by sea (8 billion 620 million dollars), this mode is followed by land (3 billion 702 million dollars) and air (929 million dollars).

Chart 1. Exports by Transportation Modes (%)

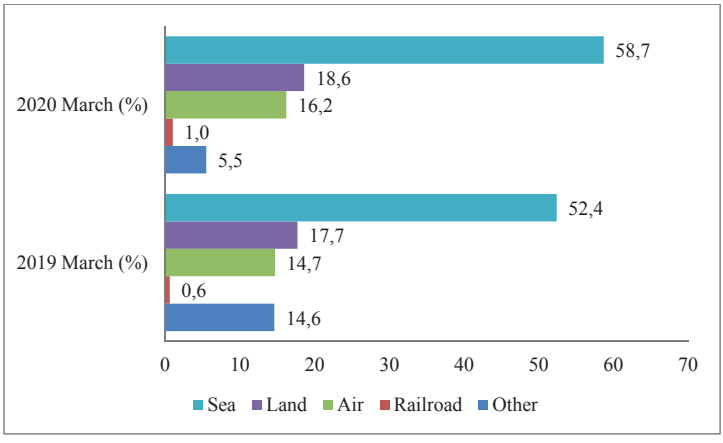


Source: *T. C. Ministry of Commerce March 2020 Data Bulletin.*

(Note: *"Other" includes self-propelled vehicles, pipeline and mailing.)*

Considering the import data presented in Chart 2 according to the transportation modes, exports were mostly made by sea (11 billion 44 million dollars), followed by land (3 billion 500 million dollars) and air (3 billion 50 million dollars).

Chart 2. Imports by Transportation Modes (%)



Source: *T. C. Ministry of Commerce March 2020 Data Bulletin.*

(Note: *"Other" includes self-propelled vehicles, pipeline and mailing.)*

In land transport, the freight costs increased by approximately 15% due to COVID-19 as a result of the delays in export loads due to closed border gates, and trailers and containers not returning due to truck queues at the border gates. The Association of International Freight Forwarding (UTIKAD), an association representing the logistics industry in Turkey, reported that problems emerged in Ro-Ro navigation as drivers in land transport could

not be transported by plane from Turkey to Europe, and vice versa. The fact that the drivers returning to Turkey are quarantined for 14 days and that the public institutions in the European countries applied for visa extension are being closed created a bottleneck in the availability of drivers, and these factors have caused serious shortcomings and blockages in land transportation (UTİKAD, 2020). On the other hand, due to the epidemic, a high demand for food products have occured in Turkey as elsewhere in the world. Especially, the use of trucks with prices above the market average by chain stores has brought an increase in land freight transportation costs.

Considering that approximately 80% of the world trade is carried by sea, all kinds of delays or interruptions in sea transportation negatively affect the flows of goods and therefore supply chains. Sea transportation has been disrupted as the COVID-19 epidemic has created restrictions on crew and ships in many ports around the world. Container transportation costs, which increased due to the cleaner fuel application in 2019, are estimated to have increased even more due to the epidemic (Tanyaş, 2020). In addition, the epidemic has caused consumers concerns against goods from China and the Far East countries, and due to the decrease in the number of cargo and containers from the Far East to Turkey, the problem of finding the empty containers for export has become a current issue. Due to the accumulated loads waiting on the ports, there is also a shortage of space in export ships. The fact that cargoes to China and Italy cannot cleared on time leads to the problem of not being able to deliver the goods to their final destinations.

Due to the restrictions and prohibitions imposed on airlines, commercial flights were canceled and global air passenger traffic decreased by 28.2% in the first three months of 2020 with a loss of 620 million passengers (Akca, 2020). When the cargo volume that can be transported by commercial aircrafts is withdrawn from market, the demand for cargo aircraft has increased the shipping costs significantly. Another reason for the increase in demand of air transport is the shifting of the orders, that cannot be delivered on time by sea due to the disruptions mentioned above, from sea to air transportation.

Since physical contact is less in rail transport compared to other modes, the negative impact of COVID-19 epidemic on rail has been relatively low, and the importance of rail transport has been better understood. Especially due to problems in the transition of land vehicles from Turkey to Iran, demand for railway has increased in the region. Wagons are not drawn to the buffer zone between Iran and Turkey by locomotive, but are pushed, so only the cars are passing to the Iranian side without driver and staff. Empty wagons that return are disinfected in the designated waiting area, and thereafter drawn to Turkey. These waits also increase the duration of these trips. In addition, the number of wagons is not sufficient due to high demand.

Because of these challenges during the COVID-19 epidemic, the logistics sector has various expectations from government. Within the scope of the Economic Stability Shield Package, the withholding tax and VAT return payments for the

logistics-transportation sector were postponed for 6 months (Tanyaş, 2020). Sector representatives state that they support incentives, but new economic measures should be implemented to prevent the logistics sector from having problems. In this regard, the foremost expectations of the sector can be listed as SCT-free fuel subsidies, freight subsidies related to the cargo carried, the regulation of measures to be implemented by the customs administrations against the epidemic so as not to prevent logistics flow, the resolution of demurrage and warehouse problems for cargoes waiting at the ports in a way not handicapping relevant parties, and introducing discounts on airport tariffs of fares.

The Measures Implemented Regarding the Logistics Sector in the COVID-19 Epidemic

The measures the government has taken to mitigate the impact of the epidemic concerning the logistics sector in Turkey can be summarized as follows (https:// www. covid19.ticaret.gov.tr):

- *Employees working in the warehouses are given masks and gloves, the health checks of the drivers are made, the offices and the interiors of the vehicles are disinfected.*
- *No-touch packaging, clean packaging materials, daily cleaned delivery tools and protective measures such as the use of masks and gloves help responding to the hygiene concerns of customers.*
- *Hygiene and health rules for the epidemic are applied at customs, and employees are provided with masks and protective clothing.*
- *Border gates are disinfected.*
- *In the trade with Iraq, the practice of driver exchange was implemented in the buffer zone. According to that, the driver returns by leaving his vehicle in the buffer zone, and another driver from the other side comes to take the truck. Thus, there is no human contact, and entry and exit is managed by disinfecting the front part of the vehicle.*
- *Preparations are in progress to develop the practice of delivering full containers in exchange for empty ones. For example, rail shipments at the Kapıköy Border Gate with Iran are pushed by locomotive from the Turkish side without human contact and drawn by towing locomotive from the Iranian side.*
- *Work has been going on to increase the expeditions via the Baku-Tbilisi-Kars railway from 2500 tons to 6000 tons per day.*
- *Vehicles traveling to Italy and France by Ro-Ro are shipped without human contact by tow trucks in these countries.*
- *Risk assessments are made regarding ships and marine vessels arriving at the ports.*

Projections Regarding Logistics Sector in the Post-Epidemic Period

In the normalization process of the COVID-19 epidemic, it is likely that some changes will take place in logistics activities both due to circumstances in supply chains and related to the sector itself. These can be discussed under the headings such as transportation models that will enable no-contact practices in foreign trade; multi-location, dynamic but low-cost approaches to meet the increasing demand on storage; logistics services providers that are better interwoven into supply chains and open to communication; digitalization; and development of models that will adapt quickly to demand fluctuations in cargo services.

It is anticipated that the changes envisaged and explained above for supply chains, especially the new approaches to the stock policies of manufacturers, will increase the demand for storage space and the overall demand for logistics services. It is probable that some sectors will increase their raw material or finished product stocks, while some others will start keeping safety stocks, and the increase in stocks hence will require capacity increase in storage areas and create the need for new storage areas. Also, in order to be close to the customers and to reduce the risks in extraordinary periods, the necessity to keep stock in different cities or countries may arise for companies. In this regard, multi-locational warehouse models, which enable dynamic planning but are low-cost at the same time will need to be developed. In addition, alongside with these changes in the stock policies of the producers on the supply side, there has also been shocks on the demand side during the epidemic. Since cities, states and/or regions were quarantined and mobility restrictions were applied, citizens had to stockpile the products they would need to manage their lives during the quarantine processes. For this reason, some products that are not supplied sufficiently have caused crises (Acar, 2020). Therefore, we can say that the stock approaches of retailers, which are contact points with the customer, will also change and this will lead to capacity increases on the transportation side of logistics.

As a result of the COVID-19 epidemic, physical trade has come to a halt due to reasons such as avoiding physical contact, unsafety of going outside, quarantines and prohibitions. However, continuing consumer needs and advanced internet technologies have ensured the continuity of trade online and the epidemic has even created a catalyst effect in e-commerce. It is known that the number of consumers in e-commerce has increased and new consumer masses have formed worldwide due to the epidemic. There is no physical interaction other than cargo acceptance in e-commerce. In the epidemic period, 37.4% of consumers have been first-time shoppers. It is estimated that millions of new consumers will have experienced online shopping by the end of the epidemic period (Javed, 2020). According to a study of the research company Nielsen, e-commerce growth has exceeded its growth in the first two months of 2020, reached to three-digit values as 171% in the first 5 weeks after the announcement of the first COVID-19 case in Turkey.

One of the most important stakeholders in e-commerce is cargo services. In this respect, it can be claimed that with the increase in the number of e-commerce orders, the need for logistic services will increase, and the necessity to increase the capacities of existing e-commerce operation centers and establish new e-commerce order preparation centers will emerge. New alternatives such as delivery on the same day, or online ordering in return for delivery of products from retailers like shopping malls, supermarkets or other locations will develop. Delivery on the same day will lead land vehicle fleets to grow and new e-commerce logistics service providers to enter the sector.

Conclusion

The COVID-19 outbreak has demonstrated the commercial shortcomings of the globalizing world on one hand, and the vital importance of supply chains and logistics as well as the need for reliable supply chains on the other hand. During the epidemic process, it has been understood that all supply chain and logistics operations should function flawlessly from supply to production, from warehouse operations to transportation, from e-commerce to cargo and courier services in order to ensure easy and swift access to food, health, cleaning and all other basic consumer products. This epidemic not only underlined the importance of supply chain management and logistics but also made the shortcomings and vulnerabilities more obvious.

The significant impact of the epidemic not only affected various sectors and businesses but also caught the supply chains off guard. Since the impact of the COVID-19 epidemic seems likely to be long-term and similar virus outbreaks are expected to be on the global agenda due to increasing population, urbanization, international travel, commercial integration in the coming years, a questioning and self-assessment process is inevitable in the post-epidemic period in supply chains and logistics activities. In the business world, as crises can also bring great opportunities with the awareness, planners and those in management levels in the supply chains and logistics fields should strive to turn the crisis into an opportunity and create management approaches that will keep extraordinary global risks at an optimum level.

The self-assessment process for supply chains in the post-epidemic period will take place under the headings of localization, easy access to suppliers and customers, flexibility, dynamism, and digitalization. In the logistics sector, issues such as no-contact transportation models, multi-location, dynamic and low-cost storage approaches, open-to-communication logistics services providers, digitalization, and development of cargo services that will adapt quickly to demand fluctuations will become paramount.

On the other hand, during the epidemic process, the whole world understood the negative effects of globalization on natural resources and environmental pollution better and that these effects pave the way for the occurrence of global epidemics and disasters such as COVID-19. In this regard, the expectations

of states and individuals from the business world will now be reducing environmental impacts and prioritizing human health. The same will apply to supply chains and logistics operations.

The estimation that the effect of the COVID-19 epidemic will be long-lasting and that similar outbreaks will always be on the global agenda makes issues such as disease control, epidemic prevention planning, humanitarian logistics, and reverse logistics concerning the recycling of medical supplies and plastics more prominent than ever. In the epidemic, the great difficulties have been experienced in the provision and delivery of medical supplies to the points of need such as test kits, masks, gloves, which are critical for human health and the prevention of the spread of the disease. This implies that there were setbacks and ruptures in the health supply chains. In addition, the intensive use of disposable plastic products and increased medical wastes to reduce contact and prevent infection during the epidemic have made reverse logistics and closed loop supply chain practices more important. In this context, it is envisaged that health supply chain, humanitarian logistics, reverse-logistics, closed-loop supply chain and sustainability of supply chains will be areas to be studied and focused by both practitioners and academicians.

References

Acar, Y. (2020). Yeni Koronavirüs Salgını ve Turizm Faaliyetlerine Etkisi. *Güncel Turizm Araştırmaları Dergisi, 4*(1), 7-21.

Akca, M. (2020). COVID-19'un Havacılık Sektörüne Etkisi. *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi (ASEAD),* 7(5), 45-64.

Brakman S., Garretsen H. and van Witteloostuijn A. (2020). The Turn from Just-in-Time to Justin-Case Globalization in and After Times of COVID-19 An Essay On The Risk Re-Appraisal of Borders and Buffers. *Social Sciences & Humanities Open, 2*(1), DOI: https://doi.org/10.1016/j.ssaho.2020.100034. (16.06.2020)

Büyüközkan, G. (2020). COVID-19 Salgını ile Mücadelede Dirençli Tedarik Zincirleri. LODER Bülteni 2020-1, 18-23, Retrieved from: https://www.loder.org.tr. (16.06.2020)

Craighead C.W., Ketchen D.J. and Darby J.L. (2020). Pandemics and Supply Chain Management Research: Toward a Theoretical Toolbox, Decision Sciences. DOI: https://doi.org/10.1111/deci.12468.

Dağlı, O. (2020). Koronavirüs Salgını ve Çin-Afrika İlişkilerine Olası Etkileri. AFAM Rapor 7. Retrieved from: https://www.afam.org.tr/wp-content/uploads/2020/03/Koronavir%C3%BCs-ve-%-C3%87in-Afrika-%C4%B0li%C5%9Fkilerine-Olas%C4%B1-Etkileri.pdf (16.06.2020)

Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. SSRN 3557504. Retrieved from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3557504. (16.06.2020)

Ivanov D. and Dolgui, A. (2020). Viability of Intertwined Supply Networks: Extending The Supply Chain Resilience Angles Towards Survivability. A Position Paper Motivated By COVID-19 Outbreak. *International Journal of Production Research, 58*(10), 2904–2915. DOI: https://doi.org/10.1080/00207543.2020.1750727.

Javed A. (2020). Economic Impact of Coronavirus and Revival Measures: Way Forward for Pakistan. Sustainable Development Policy Institute. Retrieved from: https://www.jstor.org/stable/pdf/resrep24351.pdf. (16.06.2020)

Karakaya, E. (2020). COVID-19 Krizinin Ekonomi, Enerji ve Emisyonlara Etkileri: Mevcut Durum ve Olası Post-Corona Senaryoları. Retrieved from: https://www.iklimhaber.org/covid-19-krizinin-ekonomi-enerji-ve-emisyonlara-etkileri-mevcut-durum-ve-olasi-post-corona-senaryolari/. (16.06.2020)

Majid, A. (2020). Pakistan's Supply Chain Resilience Impact of Corona Virus. Retrieved from: https://hcommons.org/deposits/item/hc:29269/. (16.06.2020)

Min, H. and G. Zhou (2002). Supply Chain Modelling: Past, Present and Future, *Computers and Industrial Engineering, 43*(1-2), 231-249.

Sanders Nada R. (2020). COVID-19 Supply-Chain Disruption, Treasury &Risk, Retrieved from: https://www.treasuryandrisk.com/2020/03/19/covid-19-supply-chain-disruption/?slreturn=20200428142138.

Stratejik Araştırmalar Merkezi – SAM (2020). COVID-19 Sonrası Küresel Sistem: Eski Sorunlar, Yeni Trendler. Retrieved from: http://sam.gov.tr/tr/wp-content/uploads/2020/04/sam-covid-kitap.pdf (16.06.2020)

Tanyaş, M. (2020). Koronavirüs Salgını Tedarik Zincirlerini Kırdı. LODER Bülteni 2020-1, 15-17. Retrieved from: https://www.loder.org.tr. (16.06.2020)

T.C. Ticaret Bakanlığı (2020). 2020 Yılı Mart Ayı Veri Bülteni, Retrieved from: https://ticaret.gov.tr/data/5e8590ec13b87651d4e6d66f/2020%20Y%C4%B1l%C4%B1%20Mart%20Ay%C4%B1%20D%C4%B1%C5%9F%20Ticaret%20Veri%20B%C3%BClteni.pdf (16.06.2020)

T.C. Ticaret Bakanlığı (2020). Koronavirüs (COVID-19) Kapsamında Dış Ticarette Alınan Önlemler. Retrieved from: https://www.covid19.ticaret.gov.tr. (16.06.2020)

Uluslararası Taşımacılık ve Lojistik Hizmet Üretenleri Derneği – UTİKAD (2020). Koronavirüs'ün Lojistik Faaliyetlere Etkisi Sürüyor. Retrieved from: https://www.utikad.org.tr/Detay/Sektor-Haberleri/28822/koronavirus-un-lojistik-faaliyetlere-etkisi-suruyor. (16.06.2020)

Yu, H., Sun, X., Solvang, W. D., and Zhao, X. (2020). Reverse Logistics Network Design for Effective Management of Medical Waste in Epidemic Outbreaks: Insights from the Coronavirus Disease 2019 (COVID-19) Outbreak in Wuhan (China). *International Journal of Environmental Research and Public Health, 17*(5), 1770.



The Future of Cryptocurrency After the Pandemic

Mürsel Doğrul
Cem Korkut

Academic Instructor Mürsel Doğrul

Graduated from Bolu Abant İzzet Baysal University, Department of International Relations in 2014. He completed his undergraduate education by staying in Romania for 6 a months term with the Erasmus Program. He has completed internships at the Ministry of EU of Turkey and the Ministry of Foreign Affairs of Turkey for one-month in 2013. He started his master's degree at both Abant Izzet Baysal University (Political Science) and Necmettin Erbakan University (International Relations) in 2015. He has worked as an English teacher in Barcelona for three months in 2016. He graduated from the International Relations M.Sc. program at Necmettin Erbakan University and started his Ph.D. at National Defense University, Atatürk Strategic Research Institute) in 2017. Currently, he is a teaching assistant at Necmettin Erbakan University and researcher at the Turkey Academy of Sciences (TUBA) at the same time. He has published many academic works and articles which are mostly upon Japanese foreign policy and security policy. In addition to advanced English, he has an intermediate level of Japanese proficiency.

Dr. Cem Korkut

Cem Korkut, Ph.D. is Assistant Professor at the Department of Economics of Ankara Yildirim Beyazit University (AYBU). He is also the advisor to the President at the Turkish Academy of Sciences (TUBA). He graduated from TOBB University of Economics and Technology, where he entered with a full scholarship, as a high honor student in 2011. He completed his MA in Economics at AYBU in 2014. He studied Ottoman cash waqfs (pioneer of current Islamic/interest-free financial institutions) in his MA thesis. He completed his Ph.D. at Istanbul Sabahattin Zaim University (IZU) with a thesis on capital formation, accumulation, and structure in Islamic economics in 2018. Having national and international papers and book chapters on topics such as Islamic economics, Islamic banking and finance, and cash waqfs, Dr. Korkut is an active member of the Ankara Center for Thought and Research (ADAM) and executive of Islamic Economics School. His main academic interests are Islamic Economics, Islamic Banking and Finance, Macroeconomic Policies, World Economy in the Longue Durée, Ottoman Economic History and Economic Development Paradigms of Different Societies.

The Future of Cryptocurrency After the Pandemic[1]

Mürsel Doğrul
Necmettin Erbakan University
mursel.dogrul@tuba.gov.tr

Cem Korkut
Ankara Yıldırım Beyazıt University
ckorkut@ybu.edu.tr

Abstract
The definition of money is one of the most fundamental discussions of economics. Regardless of banknote or coin, many studies have been done on what money means. In the second half of the 20th century, with the spread of the banking system, a global monetary system based on the dematerialized money system was established. Especially in times of financial crisis, the reliability of this system is questioned. However, the global financial system, in which the whole world is integrated, makes a total change very difficult. The widespread use of cryptocurrencies has brought new discussions with recent technological developments.

It is thought that the COVID-19 pandemic will increase because of the transmission of the virus due to the exchange of money. It is seen that these developments are defined as a period in which shopping has shifted to the internet environment and cryptocurrencies are valued. On the other hand, the crisis environment in the world has produced a completely different result. People moved away from uncertainty and turned to investments such as gold and silver. The post-pandemic period is pregnant with new developments in this respect. In this paper, the integration process of cryptocurrencies for the post-pandemic period will be questioned.

Keywords
Cryptocurrencies, Bitcoin, COVID-19 pandemic, future of monetary system

[1] This study is a translation and updated version of the paper previously published in the book titled "Bilişim Teknolojileri ve İletişim: Birey ve Toplum Güvenliği" by TÜBA in July 2020.

Introduction

Cryptocurrencies are a topical issue with the global pandemic and the recent developments and the transformation in digital technologies in recent years. With the United States indisputably establishing its authority in the aftermath of the Second World War, a financial and commercial system was also established in the world based on the US dollar. However, with the spread of technology to all areas and the impact of the Fourth Industrial Revolution 4.0 expanding into all sectors, the new cryptocurrency is the subject of a new debate whether it will replace the established system. This study examines the potential compatibility of the cryptocurrency system with the existing system or the conflicts therewith. Fluctuations and unstable changes in the value of cryptocurrencies brought with it the discussion on their integration to the system. From this perspective, the ability of cryptocurrencies to integrate into the international financial system is worthy of examination with a particular focus on the structure of Bitcoin, the most commonly used among cryptocurrencies. It is clear that Bitcoin, which offers the global economic ecosystem brand-new forms of payment, will not be able to integrate into the established system without compromising on its mechanism and structure. These structural changes and compromises should not mean that cryptocurrencies do not have a future. The static structure of the existing monetary system and the dynamism of cryptocurrency indicate that a hybrid payment system awaits the world. In this process, developing countries like Turkey should follow more proactive monetary policies. It is also evident that projects to combine the cryptocurrency, financial technologies and the informatics infrastructure are also needed in alternative areas with the potential to develop such as Islamic finance.

Bitcoin is a new cryptocurrency designed by Satoshi Nakamoto (Craig Wright) in 2009 as it said in many works (Nakamoto/Wright, 2008; Velde, 2013; Hern, 2017). Cryptocurrency is defined as a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify

the transfer of funds, operating independently of a central bank (Lexico, 2020). Bitcoin is still a hot topic within the context of the transformative effect of the cryptocurrency and the opportunities it provides.

In this system of virtual currencies such as Bitcoin (the *blockchain* system), money transfers are made without third-party intermediaries or banks (Swan, 2015). Therefore, there is no transaction fee or a real sender's name in the system. Also, it is an object of curiosity whether the new virtual currency will be integrated into the international financial system. Actively used since 2009, Bitcoin has made a distinguished name for itself with the increase in its value that has happened recently (Golumbia, 2016). Indeed, Bitcoin's price rose to 19000 US dollars and it became the most valuable cryptocurrency of the world. While it experienced a sharp decline in value in 2018, Bitcoin opened the way for discussions that do not appear to go away soon. A decentralised system allowing transactions without a third-party intermediary, Bitcoin is open-source and cryptographic (Candan & Yaşlak, 2020). This is one reason why it is claimed to be safe. However, there has been some dispute on the trust in this safety along with the issue of its ability to integrate into the financial system due to it being not strong enough. Bitcoin, which stayed a hot topic after the considerable increase in its value, has been discussed within the context of the financial sector. Also, the academic circles (Hileman & Rauchs, 2017) have conducted studies in the context of Bitcoin's usability (Naughton, 2015), reliability (Vyas & Lunagaria, 2014) and its future (D'Alfonso, 2016). A review of a significant part of the studies on Bitcoin revealed that studies that emphasise concerns on Bitcoin's integration into the international financial system (Bonneau, 2015) come to the forefront. However, these studies have been found to be rather disconnected from each other, which pointed to the need for a comparative study in order to finally answer the question of whether such integration is possible. This study makes use of the findings made up of the present data we have and aims at making estimations through a comparative analysis of the view that this new medium of exchange and investment tool, Bitcoin, (Baur et al. 2016) will probably integrate into the international financial market as well as the view that such integration is not possible. Thus, it aims at checking the validity of assumptions and concerns regarding Bitcoin's integration in light of the advancement in the information technologies.

The Cryptocurrency and the Future of the Financial System

Although there are many dimensions to Bitcoin's integration from legal, political and financial perspectives (Shcherbak, 2014), this study mainly deals with the financial system with reference to the functionality made possible by the rapid advances in technology. Bitcoin is a cryptocurrency and these currencies can be used with specific passwords via the virtual wallets in which they are stored also using passwords (Frisby, 2014). People can use this currency for their payments or receive money in this currency as in real life. The difference is that this system involves virtual wallets and the absence of

an institution that keeps track and record of transactions is an innovation for individuals and the financial system (Yellin et al., 2017). Certain suggestions are being made regarding the compatibility of this new system with the old (conventional) system that runs on bank records (Scherbak, 2014). The fact that the cryptocurrency can be used as a medium of exchange is one of the fundamental factors of compatibility with the global financial system. On the other hand, the most significant issue of integration must be dealt with in light of the advances in information technologies.

From the perspective of data storage, the new system saves the data throughout the entire network under specific codes rather than at a single point. This transaction increases the security of the saved data (Ivan, 2016). Indeed today, the conventional banks utilising advanced financial technologies follow a similar method and keep backups of user information on different servers. In terms of ways to record information, this signifies existing technological compatibility (Arnold, 2017). The reason is that the blockchain technology is not only used in cryptocurrency but also many other areas, notably banking, as a high-security system (Forbes, 2017). It is clear that the blockchain system will help reduce transaction costs in banking transactions around the world (Masters, 2017). It is also understandable why existing banks and financial institutions are not willing to adopt this blockchain system as they profit from these fees calculated over the costs of the money transfer processes. Also, this system in which all user information is collected and access is achieved via multi-factor authentication not only allows the account holders to share as much data as they prefer but also maintains privacy more effectively than contemporary systems. With this in mind, globally known corporations including VMware, Intel, Oracle, IBM, Amazon and Microsoft have initiated projects to achieve compatibility with this technology (Evans, 2017). Multinational and corporate firms around the world have also started receiving payments in Bitcoin (Masters, 2017). All of these developments give important clues to Bitcoin's integration into the existing system.

Cryptocurrencies have no affiliation with the central bank of any particular country. Therefore they are less severely affected by the financial and political instability in a country than other currencies. Although the fact that there is limited control over the trading of cryptocurrencies causes undesired volatility in the financial system most of the time, there are areas where it is preferred since it does not belong to a single entity, nor is it monitored or controlled by a central authority. Also, it is not possible to freeze or seize a cryptocurrency account. Its flexible and independent structure takes the cryptocurrency one step ahead of the traditional system (Hernandez, 2014). The flexibility of the cryptocurrency has allowed it to be adopted as a payment method in many areas including the labour market (Agence France-Presse, 2017). Its use as a payment method and the limited control over it has not only created advantages but also certain risks.

The fact that Bitcoin is used in illegal transactions and unlawfully allows money laundering and the use of laundered money as in the Silk Road case in the US (BBC, 2013) brought with it some serious concerns. At this point, the views that advocate that governments should take their position in the cryptocurrency system in order to benefit from the system and not to lose control by missing the opportunities offered by the rapidly advancing/transforming financial technologies are now being voiced more frequently. However, there is the risk of the cost of the work to be carried out for the regulations on the cryptocurrency, which owes its advantages mostly to its flexibility, being higher than the revenue that will generate out of these regulations. Therefore, it will be a proactive move for the institutions and policymakers to develop strategies specific to this sort of virtual currencies and make their current financial systems compatible with them. These will allow the cryptocurrencies to involve in and adapt themselves to the legal process. This way, it will be ensured that the strengths of both systems are preserved rather than one system fully conforming to the other.

Another feature that makes the integration of the cryptocurrency possible is that the transactions on the blockchain system are traceable. What is to be done here is to get acquainted with this technology and train qualified specialists. This feature of the cryptocurrency which is often overlooked amidst the concerns on money laundering and abuse, in fact, makes it possible to keep track of even the smallest account activity. Through this diligent surveillance, the governments will be able to track down and arrest the offenders based on these transaction documents that serve as proof of even the smallest offence (Doguet, 2013). It would be wiser for the governments to integrate it into their systems instead of banning or avoiding its use. In addition to this, the cryptocurrency allows countries with very limited financial activity or weaker banking systems to easily benefit from the facilities used by developed countries (Barbirato, 2016). The cryptocurrency, which will enable the active use of financial technologies around the world thanks to these advantages, will not be the medium of uncontrolled money flow, as commonly believed, rather it will help create a payment system that will detect even the simplest irregularities under a properly established control mechanism. The governments will, therefore, work closely with the cryptocurrency in order to establish a control mechanism which will make money laundering impossible (Para Analiz, 2017a). In other words, the cryptocurrency can be integrated into the current system only by losing its essence. In this case, the cryptocurrency will become the international currency used for money transfers and payments under control. It will also become a currency to which each government can adjust its currency in the international markets.

Economic Confidence After the Pandemic

Confidence is one of the fundamental factors in the traditional economic theory (Aysan, 2020). In this context, the discussion on how confidence could be built in the cryptocurrency gives important clues to its integration. In

the cryptocurrency system, there is no physical contact with money and the payments are made online. This is rather different from the forms of payment that people are accustomed to. However, the types of money and payment methods are shaped by the needs of societies. Certain precious metals and paper have been used by people as money through history (Korkut, 2020). Changes can take place in the reliability and the form of money as happened in history. One reason is that pieces of paper, plastic cards or electronic data are not essentially money. What has allowed them to be regarded as money is that they have been released into the market by a reliable authority. In other words, both paper and plastic can be used commercially and have been considered money from the moment they become reliable tools (Singh, 2005). Therefore an environment of confidence must be established primarily in a payment system. The financial system established in this way will have a profound influence on the future of the new currency. Adequately and properly calculated regulations are significant in that they facilitate the adoption of the new currency system by the consumers. These are pioneer systems such as online banking applications and bank payment systems (Bollen, 2013). The integration of the cryptocurrency into the conventional system also depends on the enhancement of these pioneer ventures and the introduction of new applications to consumers. Once the consumer payment system has become reliable, practices will also be replaced by the new ones because it is money itself (its use, circulation, form, etc.) that largely shapes the markets and when money changes, the markets will follow (Nishibe, 2014). Therefore it would be wrong to assume that changes will happen only in the money system. We can now speak of a transformation to such an extent that will influence consumer behaviour.

On the other hand, the current value of Bitcoin stems from the fact that the users still accept it as a medium of exchange or see it as a commodity. As in other currencies or commodities, Bitcoin's value is determined by instantaneous supply and demand conditions in the market (Lo & Wang, 2014). Therefore, its acceptance as a commodity or a medium of exchange turns it into a standard currency. This is already gaining worldwide acceptance (Rizzo, 2015; Kawa, 2015). Therefore this kind of support paves the way for the integration of the cryptocurrency into the system. One of the most important issues at this point is the fact that the cryptocurrency systems are centered around Bitcoin. Among over two thousand cryptocurrencies, there are those released by certain authorities. This means that arguments for illegitimacy and lack of control are not valid for all cryptocurrencies (Doğan, 2020). And this shows that the integration process could be established on the basis of confidence. In addition to all of the above, there are some that interpret the future of the cryptocurrency after the pandemic from the health perspective. These studies underline the fact that paper money will help the spread of the virus, therefore people will turn to the options including contactless payment systems, online shopping and cryptocurrency transactions.

The Cryptocurrency and Its Risks

The first criticism of the integration of the cryptocurrency into the current system (Hileman & Rauchs, 2017) argues that cryptocurrencies do not have any real metal value like precious metals nor any government-backed value like paper money. Therefore, it is not estimated that, without a guarantee from an authority, the cryptocurrency will replace physical money any time soon (Reuters Business, 2017). Also the nonhomogeneous use of information technologies around the world is one of the biggest obstacles standing in the way of the cryptocurrency replacing the physical money. With the face value of even the physical money called into question especially after the recent crises and the COVID-19 global pandemic in particular, the cryptocurrency will face even a bigger challenge. The studies show that the cryptocurrencies are not considered as safe havens, but amplifiers of contagions (Conlon & McGee, 2020; Corbet, Larkin, & Lucey, 2020: 7).

The sudden fluctuations in the value of cryptocurrencies bring to mind the Dutch Tulip mania of the 16th century and other speculative frenzies in general (Taskinsoy, 2019; Moosa, 2020) For instance, Bitcoin had five corrections amounting to 30% throughout 2017 but the first four corrections were followed by an upward trend within 38 days on average. The fluctuations in Bitcoin's value continued in the following years. The loss of value was over 50% in 2018. As can be seen in Chart 1, Bitcoin follows a fluctuating course in general and recovers its losses afterwards.

Chart 1. Bitcoin's price against USD



Source: *(TradingView, 2020)*

Sharp falls and rises as shown in Chart 1 shakes the confidence in Bitcoin, which causes it to be regarded as merely an investment tool within the context of certain doubts. Bitcoin's main advantage that needs to be emphasized for integration is that it is medium of exchange although it has mostly been used as an investment tool. As the options for payment in the cryptocurrency

are not well-developed trading via cryptocurrencies is limited and they are used for speculative purposes in the form of savings/investment due to the challenges in spending them. However, since they are very open to speculative operations and more volatile than other stores of value, cryptocurrencies are not suitable for long-term investment. Although it offers a good degree of functionality based on its concept, cryptocurrencies have not yet reached the required trading volume as they are not real currencies and due to the negative effects of speculations (Para Analiz, 2017b). In this context, the risks associated with the cryptocurrency can be classified into three main groups: (i) economic, (ii) legal and (iii) infrastructural and technological risks (Candan & Yaşlak, 2020). Alongside these risks, the sociological impact of the spread of the cryptocurrencies must also be analysed well.

According to the US Federal Reserve as well as to the US Securities and Exchange Commission, the cryptocurrency and Bitcoin, in particular, are the biggest danger facing the American financial system. One reason is that international money transfers are possible via Bitcoin uncontrolled by government authorities. Also, there is the risk of the Federal Reserve's centralised structure falling apart (Financial Times, 2017). These risks associated with the cryptocurrency have primarily led to the restrictions imposed on its operation in many countries (Hill, 2014). Therefore, it would not be realistic to assume that the cryptocurrency will soon replace the dollar which is the main currency used in the payment systems nor that it will revolutionize the dollar system (Wessel, 2016). There are, however, other views that Bitcoin, which the most commonly used among cryptocurrencies, will be used as the common currency thanks to the rapid advancements in information technologies (Frean, 2018). Therefore, it would not be wise for countries to direct all investment and orientation in financial technology towards the cryptocurrency. Also, it should not be ignored that developments in financial technologies have features that can potentially recover the failures of the global financial system.

Conclusion

The integration of the cryptocurrency into the financial system is a process signifying a harmonisation that extends over time. This harmonisation process will be possible with the financial system becoming more dynamic while at the same time maintaining its stability and with the cryptocurrencies integrating into the financial system under heightened security and control. In other words, a stable but flexible financial system must be built on the basis of strengths rather than weaknesses. In order to achieve this, the cryptocurrency must be isolated from the speculative investment operations that surround it and regarded merely as a medium of exchange that makes shopping easier. Otherwise, all of the financial problems created by the fiduciary monetary system will eventually result in the widespread use of the cryptocurrency. Similarly, security is another important issue to be emphasized in this process of transformation and integration. The reason is that the cryptocurrency can be integrated into the international financial system only by making it

controllable. Controllability will allow the governments to play an important role in the widespread adoption of the cryptocurrency. As a payment system where the governments are not involved will not last long, the government involvement is especially important to create a sound and long-lasting currency. This will provoke new discussions when the governments start issuing their own cryptocurrencies.

While the rapid advancements in technology force all sectors to adapt, economy and finance are in no different condition. Furthermore, the developments in security systems as well as the fact that new information technologies are needed to track international monetary activity as a result of globalisation and increased trade volume led to the formation of new concepts for new circumstances. One of these concepts, the widespread adoption of the cryptocurrency is not only foreseeable but also points to the fact that the governments should be prepared for the potential problems that may arise. For this purpose, the institutional infrastructure should be prepared proactively for a planned transition instead of taking action in the process. All legislative/regulatory arrangements should be done in collaboration and mutual understanding with all the stakeholders in order to deal with all potential inconveniences in the future. Furthermore, the common trend of investing in commodities such as gold and silver, considered by people to be more reliable in times of crisis such as the global pandemic is another challenge facing the cryptocurrency in the future.

References

Agence France-Presse. (2017). Japanese company to start paying employees in bitcoin. *The Guardian*: https://www.theguardian.com/technology/2017/dec/15/japanese-company-paying-employees-bitcoin [03.06.2020].

Arnold, M. (2017). Five ways banks are using blockchain. *Financial Times*: https://www.ft.com/content/615b3bd8-97a9-11e7-a652-cde3f882dd7b [03.06.2020].

Aysan, A.F. (2020). COVID-19 Salgınının Dünya Ekonomisini Etkilemesinde Belirsizlik ve Güven Kavramsallaştırması. *Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği* (ss. 521-541). Ankara: Türkiye Bilimler Akademisi Yayınları.

Bambrough, B. (2020). John McAfee Thinks He's Solved Bitcoin's Greatest Mystery—Who Is Satoshi Nakamoto?. *Forbes*: https://www.forbes.com/sites/billybambrough/2020/05/05/john-mcafee-thinks-hes-solved-bitcoins-greatest-mystery-who-is-satoshi-nakamoto/#145df5b956d4 [01.06.2020].

Barbirato, B. B. (2014). *Bitcoin: A Political Analysis*. King's College London. Yüksek Lisans Tezi.

Baur, D. G., Hong, K. J., & Lee, A. D. (2016). Bitcoin–Currency or Asset?. *Melbourne Business School, 2016 Financial Institutions, Regulation & Corporate Governance (FIRCG) Conference*: https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID2736020_code2513688.pdf?abstractid=2736020&mirid=1 [03.06.2020].

BBC. (2013). *FBI arrests Silk Road drugs site suspect*: https://www.bbc.com/news/technology-24373759 [03.06.2020].

Bollen, R. (2013). The legal status of online currencies: are Bitcoins the future?. *Journal of Banking and Finance Law and Practice, 24*(4), 272-293.

Bonneau, J., Miller, A., Clark, J., Narayanan, A., Kroll, J. A., & Felten, E. W. (2015, May). Sok: Research perspectives and challenges for bitcoin and cryptocurrencies. In *2015 IEEE*

symposium on security and privacy (pp. 104-121). IEEE: https://ieeexplore.ieee.org/abstract/document/7163021?casa_token=LtEphkTcWFYAAAAA:uz1XVmrZ-XBxev9vs3eXDD9-zdl2uCZOAWXrSUE-nEXAzce9DkWOtUBlGV5wCISNLXTvlTPurj4 [02.06.2020].

Brito, J., Shadab, H., & Castillo, A. (2014). Bitcoin financial regulation: Securities, derivatives, prediction markets, and gambling. *Columbia Science and Technology Law Review*, 16, 144-221.

Candan, A., & Yaşlak H. İ. (2020). Bitcoin Örneği Üzerinden Fıkhın Kripto Paralara Bakış Açısı. *İslam İktisadında Para – Bakırdan Dijitale* (ss. 257-292). Ankara: Türkiye Diyanet Vakfı Yayınları.

Conlon, T., & McGee, R. (2020). Safe haven or risky hazard? Bitcoin during the COVID-19 bear market. *Finance Research Letters,* 101607.

Corbet, S., Larkin, C., & Lucey, B. (2020). The contagion effects of the covid-19 pandemic: Evidence from gold and cryptocurrencies. Finance Research Letters, 101554.

D'Alfonso, A., Langer, P., & Vandelis, Z. (2016). *The Future of Cryptocurrency An Investor's Comparison of Bitcoin and Ethereum*. Ryerson University, 1-16.

Doguet, J. J. (2013). The Nature of the Form: Legal and Regulatory issues surrounding the Bitcoin digital currency system. *Louisiana Law Review, 73*(4), 1119-1153.

Doğan, H. (2020). İslâm Hukuku Bakımından Kripto Para Uygulamaları. *İslam İktisadında Para – Bakırdan Dijitale* (ss. 229-256). Ankara: Türkiye Diyanet Vakfı Yayınları.

Evans, B. (2017). Microsoft, Oracle Jump Into Blockchain On Same Day -- And Microsoft Is Clear Leader. *Forbes*: https://www.forbes.com/sites/bobevans1/2017/08/22/microsoft-oracle-jump-into-blockchain-on-same-day-and-microsoft-is-clear-leader/#3ea2f1f14b04 [01.06.2020].

Financial Times. (2017). *Regulators say bitcoin poses 'financial stability risks'*: https://www.ft.com/content/e0880cf6-3800-11e6-9a05-82a9b15a8ee7 [01.06.2020].

Forbes. (2017). *What Is Blockchain Used For Besides Bitcoin?*: https://www.forbes.com/sites/quora/2017/11/17/what-is-blockchain-used-for-besides-bitcoin/#2e70646b446e [02.06.2020].

Frean, A. (2018). Bitcoin will become the world's single currency. *The Times*: https://www.thetimes.co.uk/article/bitcoin-will-become-the-worlds-single-currency-tech-chief-says-66slm0p6b [02.06.2020].

Frisby, D. (2014). *Bitcoin: the future of money?*. Unbound Publishing.

Golumbia, D. (2016). *The politics of Bitcoin: software as right-wing extremism*. U of Minnesota Press.

Hern, A. (2017). Everything you wanted to know about bitcoin but were afraid to ask. *The Guardian*: https://www.theguardian.com/technology/2017/nov/11/everything-you-ever-wanted-to-know-about-bitcoin-but-were-to-afraid-to-ask-cryptocurrencies [01.06.2020].

Hernandez, W. (2014). Bitcoin has advantages over traditional banking services. *Mobilepayments Today*: https://www.mobilepaymentstoday.com/articles/futureofpayments-bitcoin-has-advantages-over-traditional-banking-services/ [01.06.2020].

Hileman, G., & Rauchs, M. (2017). Global cryptocurrency benchmarking study. *Cambridge Centre for Alternative Finance*, 33, 33-113.

Hill, K. (2014). Bitcoin's Legality Around The World. *Forbes*: https://www.forbes.com/sites/kashmirhill/2014/01/31/bitcoins-legality-around-the-world/#1dd51a893ccd [04.06.2020].

Ivan, D. (2016). Moving toward a blockchain-based method for the secure storage of patient records. In *ONC/NIST Use of Blockchain for Healthcare and Research Workshop*. Gaithersburg, Maryland, United States: ONC/NIST (pp. 1-11). https://www.healthit.gov/sites/default/files/9-16-drew_ivan_20160804_blockchain_for_healthcare_final.pdf [03.06.2020].

Kawa, L. (2015). Bitcoin Is Officially a Commodity, According to U.S. Regulator. *Bloomberg*: https://www.bloomberg.com/news/articles/2015-09-17/bitcoin-is-officially-a-commodity-according-to-u-s-regulator [02.06.2020].

Korkut, C. (2020). İslâm İktisadında Para ve Para Politikası Uygulaması. *İslam İktisadında Para – Bakırdan Dijitale* (ss. 1-28). Ankara: Türkiye Diyanet Vakfı Yayınları.

Lexico. (2020). *Cryptocurrency*: https://www.lexico.com/definition/cryptocurrency [01.06.2020].

Lo, S., & Wang, J. C. (2014). Bitcoin as Money?. *Current Policy Perspectives*. Federal Reserve Bank of Boston. No. 14-4: https://cryptochainuni.com/wp-content/uploads/Fedral-Reserve-Bank-of-Boston-Current-Policy-Persepctives.pdf [04.06.2020].

Masters, B. (2017). Can Blockchain Become the Infrastructure of Financial Services?. *Yale Insights*: https://insights.som.yale.edu/insights/can-blockchain-become-the-infrastructure-of-financial-services [01.06.2020].

Moosa, I. A. (2020). The bitcoin: a sparkling bubble or price discovery?. *Journal of Industrial and Business Economics, 47*(1), 93-113.

Nakamoto, S. (Wright, C.). (2008). Bitcoin: A Peer-to-Peer Electronic Cash System: https://bitcoin.org/bitcoin.pdf [01.06.2020] https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3440802_code2682943.pdf?abstractid=3440802&mirid=1 [01.06.2020].

Naughton, J. (2015). Bitcoin really is useful. Just not in the way you think. *The Guardian*: https://www.theguardian.com/commentisfree/2015/may/23/bitcoin-really-useful-not-in-way-you-think [02.06.2020].

Nishibe, M. (2016). *The Enigma of Money: Gold, Central Banknotes, and Bitcoin*. Springer.

Para Analiz. (2017a). *Bitcoin "Bitik"coin oldu*: https://www.paraanaliz.com/2017/piyasalar/bitcoin-bitikcoin-oldu-19468/ [02.06.2020].

Para Analiz. (2017b). *Bitcoin diğer tüm balonların sonunu getirecek bir balon mu?*: https://www.paraanaliz.com/2017/guncel/bitcoin-diger-tum-balonlarin-sonunu-getirecek-buyuklukte-bir-balon-mu-19289/ [02.06.2020].

Reuters Business. (2017). *Digital currencies will not replace physical money soon: Bank of Japan official*: https://www.reuters.com/article/us-japan-economy-boj-fintech/digital-currencies-will-not-replace-physical-money-soon-bank-of-japan-official-idUSKBN1DM1D8 [02.06.2020].

Rizzo, P. (2015). CFTC Ruling Defines Bitcoin and Digital Currencies as Commodities. *Coindesk*: https://www.coindesk.com/cftc-ruling-defines-bitcoin-and-digital-currencies-as-commodities [01.06.2020].

Shcherbak, S. (2014). How should Bitcoin be regulated. *European Journal of Legal Studies,* 7, 41-83.

Singh, S. (2005). Designing for money across borders. *Proceedings of HCI International* (Las Vegas, Nevada, USA, 2005).

Swan, M. (2015). *Blockchain: Blueprint for a new economy*. Sebastopol: O'Reilly Media, Inc.

Taskinsoy, J. (2019). Bitcoin: The Longest Running Mania–Tulips of the 21st Century?. *SSRN*: https://papers.ssrn.com/sol3/Delivery.cfm/SSRN_ID3505953_code3200906.pdf?abstractid=3505953&mirid=1 [05.06.2020].

TradingView. (2020). *Bitcoin/Dolar*: https://tr.tradingview.com/symbols/BTCUSD/ [02.07.2020].

Velde, F. R. (2013). Bitcoin: A primer, *The Federal Reserve Bank of Chicago. Chicago Fed Letter.* No: 317: https://www.chicagofed.org/digital_assets/publications/chicago_fed_letter/2013/cfldecember2013_317.pdf [01.06.2020].

Vyas, C. A., & Lunagaria, M. (2014). Security concerns and issues for bitcoin. *International Journal of Computer Applications*, 10-12.

Wessel, D. (2016). The Hutchins Center Explains: How blockchain could change the financial system (part 1). *Brookings*: https://www.brookings.edu/blog/up-front/2016/01/11/the-hutchins-center-explains-how-blockchain-could-change-the-financial-system-part-1/ [01.06.2020].

Yellin, T., Aratari, D., & Pagliery, J. (2017). What is bitcoin?. *CNN Money*: https://money.cnn.com/infographic/technology/what-is-bitcoin/ [03.06.2020].



Sociological Remaining of Outbreak and Globalization between Evocation and Oblivion

Yasin Aktay

Prof. Yasin Aktay

Graduating from the Middle East Technical University (METU) Sociology Department, Prof. Yasin Aktay completed his master's and doctorate at the same university. He made researches and gave lectures in different universities of the USA. Dr. Aktay has many scientific books, articles and papers. Being also TÜBA member, Dr. Aktay is a columnist. He is still working as a faculty member at Ankara Yıldırım Beyazıt University Faculty of Humanities and Social Sciences, Department of Sociology.

Sociological Remaining of Outbreak and Globalization between Evocation and Oblivion[1]

Yasin Aktay
Ankara Yıldırım Beyazıt University
yaktay@yahoo.com

Abstract
COVID-19 pandemic, which the world has faced since the end of 1919, has been an event that uniquely influenced the whole world at the same time, unlike other epidemics and social and natural disasters in the past. This epidemic was felt on a global scale because it is a consequence of the risks involved or produced by globalization. Without an environment called globalization, it would not be possible for this epidemic to spread to the whole sphere so quickly. However, this epidemic also has a dimension that tests all the possibilities of globalization and the risks involved. It is said that the world will no longer be what it used to be after the closure experience in the world in the face of this epidemic that does not distinguish any color, language, poverty, richness or country. How will the world be after the corona? Will everything change drastically? Will we witness radical changes in the nature of our social relationships, international relationships, and even forms of religiousness? We are faced with a serious memory phenomenon when these questions are compared to similar outbreaks like Spanish Flu, in the past. How much does one keep in mind and what are the dynamics that make up the social memory? This article seeks to answer all these questions.

Keywords
COVID-19, post corona, epidemic sociology, globalization, social memory, evocation, oblivion

Introduction

There is no doubt that the world is going through a very difficult process due to the corona virus. It is a unique process with many aspects. We see that this virus catches all nations and races of the world without discriminating between the rich-poor, employer-employee, religious-irreligious, and black-white and equally treat everyone, therefore plays a role of a very serious actor. It seems that this virus, which makes no difference, has even hit richer countries before and more. Indeed, particularly the most developed countries in the world are suffering more than all the problems caused by the coronavirus pandemic. Due to the effect of the virus that emerged in China and caused serious losses to both health and economy, it caused the death of approximately 120 thousand people in the USA as of the middle of June. It exhibited the same effect in countries such as England, France, Italy, and Spain that have the characteristics of being the most developed countries of the world. For sure, the pandemic, despite different sizes; exhibits its effect also in Turkey along with Iran, Russia, and all European countries.

In fact, as long as the problem is global, definitions, diagnoses, and statements about the problem immediately gain global prevalence. Everyone has something to say about the problem because the experience of everyone can provide data that are useful for everyone across the globe. Because, there is still no definite information about the nature of the problem that can enable people to see the future, and nobody can talk about the ending of the problem unless the virus is eliminated from the world. This condition stipulates that all countries of the world should be in communication and solidarity with each other. This causes the necessity to act in a shared sensitivity and responsibility.

In addition to this, while the problem itself is still unclear and there is no exit map from a clear problem, everyone is focused on predicting post-corona situations and providing relevant suggestions. The most important agenda of

all social scientists, academics, and politicians all over the world is the post-corona situation. Naturally, every country is looking for ways to take advantage of this situation or to cover its losses.

How will the world be after the COVID-19? Will everything change drastically? Will we witness radical changes in the nature of our social relationships, international relationships, and even forms of religiousness? For example, will some countries, which have a great competition, end their hostility with the alliance they exhibit against the common enemy coronavirus? Will the Friday prayers, which have not been canceled in any period of history, the great interruption of church rituals due to corona-virus, be a reflection of continuing prayers with a congregation? While all these questions appeal to everyone's curiosity about the future, there is an expression that everyone agrees on: Nothing will, can be the same again. Is it really so? No matter how large and radical is the difference we live in, will it radically change the next part of human history in proportion to what is happening today? Will people who locked themselves home because of coronavirus make some habits they have acquired during this period inevitable routines in their future lives? Will people leave conventional forms of communication, behavior, and socialization to a large extent on this occasion?

In fact, while living the impact of the pandemic with all its vitality, we can understand how unhealthy it is to make such predictions about the future by looking up our social memory about some of the major, traumatic events that have occurred in the past. There have been many similar events throughout history, after which people have returned to the routine of their lives after a certain period of time and forgotten what happened. However, many events have been an important lesson to take certain measures and to make a series of new arrangements in the life of mankind in order not to be hit again from a similar place. For example, consecutive earthquakes experienced have been serious alerts on the earthquake statics of the buildings built and this has seriously affected the building quality or style. However, we must not forget that the August 17th, 1999 earthquake was erased sometime after from the memory of the society, even though it had a traumatic effect during its occurrence. It can be said that the wars of religion consequently occurred in Europe are a kind of social disaster, the fact that it almost paralyzed life over time pushed the society to a social peace quest that will hold them together. As a solution, this quest has led to a compromise in Europe over the secularism of the state. Likewise, after the two world wars that took place in Europe and devastated Europe, the idea of the European Union developed to not experience such a thing again. Although the world war may have been less prevalent than the global impact and prevalence of the pandemic that we are experiencing today, it has resulted in a major revolution that have an effect on the world economy, trade, politics, and even lifestyle.

The famous *Civilization Process* published by Norbert Elias in 1939 tries to reveal the development of the modern bourgeois lifestyle in Europe, particularly

through the spread of dinner table habits and individual hygiene habits, over their spread across the community (Elias, 1990; 2002). Concerning the individual lifestyles in pre-modern periods, there was an environment in which no hygiene rule was being observed, common plates and commonplaces of the break were used, and every type of diseases was easily transmitted to each other in the undifferentiated living spaces. It is necessary to trace the transition from a period when the behaviors that are disgusting for the modern people, such as eating by hand instead of using fork and spoon, spitting and blowing nose during a meal, etc., were considered as normal to a period of palace-like living style. Without any doubt, what Elias emphasized more in this was the formation of new bourgeois society and the socialization of the palace etiquette, even though this was related to individualization, the effects of the great pandemics, infectious diseases and plague occurred in certain periods in Europe have not been considered well. However, such infectious diseases and pandemics certainly have a very important effect on the transformation of hygiene sensitivity to a lifestyle over time.

The pandemic that we are currently experiencing will certainly have important effects on shaping the future world, but to predict what this effect will be, we need to both make some evaluations about the nature of this event and remember some sociological effects of comparable past events.

Test of our Global World with Coronavirus

It can be said that the entry of the coronavirus into our life and the way it is spread enabled us to recognize many aspects of life we are living at the "modern" level, but which we missed or forgotten, or couldn't see although we were well-get used to. The global quality of the world we live in is actually a reality that we have adopted at a global level. In our daily life, we are experiencing a lot that makes us feel it at any moment. We feel this sufficiently with the possibilities and mobilities accessible by us whether we use or not in every moment. Each part of the world is widely and intensely connected with each other. This is a situation that manifests itself in the form of communication and transportation orders, or the circulation order of people, information and goods, services, and products. However, although all of this enormous know-how, commodity, and labor presented by the globalization to the mankind offered the same opportunities as provided by the speed of circulation, communication, and transportation, the recent pandemic experience reminded us with a great warning that although the globalization offers these opportunities, the mankind is weak against the dimensions of the risks being accommodated.

In fact, it has been seen that the opportunities and conveniences offered by globalization increase the risks by geometrically folding them. The fact that a virus emerging in a city of China has become a pandemic that has spread to the whole world in a short time was possible due to the circulation speed and opportunities provided by globalization.

The world has always been a place accommodating risks and dangers. Earthquakes, storms, floods, natural disasters, and wars. Against all these, people tried to take measures throughout history. They tried to construct the strongest structures against earthquake risks, and take measures that would not bring destruction and death even if the earthquake occurred. Modern people take the process a little further in taking measures against such natural disasters that often remain within regional borders. They have focused on building a safe world without earthquakes, floods, natural disasters without ignoring any possibility. Buildings that are not affected by the earthquake, city plans that are not affected by floods, treatments that will leave diseases at the boundaries were the greatest success of modernity.

In the modern world, it was assumed that the scientific mind will be self-sufficient in creating a safe world within the chain of causality. However, regardless of the measures taken, efforts spent on creating all kinds of secure conditions by calculating all possibilities within the framework of science, the size of some risks and dangers were great proportionally to the possibilities and opportunities generated by the modern world. Essentially, although the first sociologists of the modern world have portrayed modernity as a story of progress, at the same time, they all pointed to the great dangers posed by modernity. For example, Max Weber, despite all of his rationality, even just with the institutions and lifestyle generated by this rationality, pointed out the size of the modern world that locks the modern world in an iron cage for people. While Marx pointed out the uncannyness of a world where everything that was already solid evaporated, Durkheim drew attention to the dimensions of organic society that also generated norm and *anomie*. All of these were different versions of the modernist project that designed modernity as a mechanism that functions as a clock or machine. According to this design, there would be no problem that the mind and science could not overcome. Finally, even there was something wrong in the machine, the "insurance" system has been developed to avoid incalculable possible developments have an effect on a whole structure and to prevent a local disruption collapse of the entire system. Eventually, even if there was a local development, it would be ensured that this would not damage the system.

As we have mentioned above, we felt and are feeling the reality of globalization, which started to take place in the advanced stage of modernity, day by day through the possibilities offered by the circulation of goods, money, and labor and by the possibilities of communication and transportation. However, in fact, there have been disasters that have reminded and caused us to feel the globalization reality, which has become routine in our daily lives and so we forgot, and that had an effect beyond national borders. For this reason, for example, Chernobyl and AIDS have been the most important examples. The effect of an explosion happened in the Chernobyl nuclear reactor not only remained within the borders of Russia, but it also had a different effect on the neighboring countries over the years and so globalization has been recognized differently. Likewise, the spread of AIDS disease across national borders made

the presence of globalization felt at the same time with the great risks involved. As a matter of fact, the analyses concerning the risks of globalization were carried out in the eightieth years just in the threshold of these two cases but related to AIDS disease due to its contamination and potential to turn into a pandemic. Ulric Beck, one of the famous German sociologists, described the world as a "risk society" with an analysis centering on this incident. Risks were the results of modernization, urbanization, and the opportunities it brings, and the risks that increase with globalization are also the results generated by globalization. Again, according to Beck, the risks that result from globalization are democratic to the utmost, because there is usually a disposition to be transmitted to everyone, regardless of the rich or poor (Beck, 1992: 36). Nevertheless, although Chernobyl and AIDS disease, as the risks marked together with the globalization by Anthony Giddens, who handled *Consequences of Modernity* by acting from both Beck and the analyses of Beck, have foreseen a pandemic risk such as coronavirus, it was hard to assume a case that may have such simultaneous effect throughout the world and also on many things (Giddens, 1994: 133; Turner, 2011: 253). As a result, an insurance system, which was able to foresee AIDS and other pandemic risks, was actualized and kept them at a local scale. However, the coronavirus probably made the first warning on this scale about the limits of the risks that globalization may involve. It is no longer a frightful science-fiction to say that the aftershocks of this pandemic, which simultaneously terminated all transportation systems and socialization environments around the world and locked all people to their homes, even the emergence of new ones. In this case, it is obvious that we have entered a new period in which the world order and our social lifestyles will have to adjust themselves to such risks. Meanwhile, globalization does not only occur with its possibilities and its aspect that facilitates our social life. It also realizes itself with the development of an increasing amount of consumer culture so that this culture seems to pose a serious threat to nature. While the consumption culture seriously consumes natural resources and beauties, it creates a serious environmental threat to nature with its harmful emissions. No one can predict when the threat that has become an obvious truth in terms of atmosphere, ozone layer with the carbon fuels emitted only, or other gases will bring great disaster against all of us. Meanwhile, global warming is now measurable and accommodates a similar threat that will sooner or later break out to humanity and affect the entire globe. Of course, we do not even count the threats of nuclear energy and armament. While counting all these risks, Beck states that although the people are indeed aware of these threats, none of them take an effective measure against these before they experience them, and foresees that unfortunately, they won't. Unless experienced, yes, just like we do now as we are encountering a coronavirus pandemic.

As a matter of fact, as the human being exceeds the boundary of being proud of the systems provided, falls into a deep heedlessness against the risks that these systems may contain. The statements about the activity, power, mind, and abilities displayed by the people in the world we live in today consequently knit the cover of a heedlessness that completely ignores the possibility of

impotence that he may encounter against a virus. Therefore, the coronavirus that gradually captures the whole world has an effect that reminds people of their place in this world.

Whether it is produced in the laboratory or developed naturally, the coronavirus points out the limits of civilization generated by the people. How mankind can consume all resources of the world without any responsibility and in an unproficient manner by trusting that the clouds over us will not collapse on us? Or how did he try to pretend to dominate against other people, living creatures, and nature by trusting that the mountains will not walk and come over us or the ground will not crack and swallow us? A little further, indeed this pandemic reminded us that the bread, water, the comfort we begrudged from the poor, refugees who knocked our door, and what we think we own did not belong to us. Even for a couple of months, this pandemic suddenly put an inaccessible distance between the people and terminated all assets of them. And this has, inevitably, caused an effect that transferred people to interrogate the meaning of life, however, we should not expect that everyone doing this interrogation in the same manner and as to have the same results. Because a fact revealed by the nature of humans realized up to today is that all people do not give the same reaction against an incident. As a matter of fact, people's reactions may not be the same even when experiencing such an incident that does not distinguish the rich-poor, eastern-western, southern-northern, controller-controlled, briefly no one, possibly in a manner to have an effect all over the globe in the history of humanity. As some of them continue to make calculations for the after of this incident while they experience the incident, some experience a serious interrogation process on the meaning of the life due to the effect of this incident. The data determined by some sociological researches that are immediately carried out about this subject reveal the weakness of both this diversification and the behavior changes arising from this over time, in other words, the disabled as a result of oblivion. While one of the results that are derived from the research by Veysel Bozkurt during the first days staying at home due to coronavirus reveals that "the presence of strong communal connections of people reduces their fear and worries", for example, he determines that the strong family life in Turkey has a significant contribution to deal with this problem, and adds that such types of "crises move from the fact that the increases in life-related existential anxieties weaken the calm/analytic thinking skills of the people" (Uzun & Bozkurt, 2020). In fact, this calm/analytical thinking often emerges as the famous computational rationalist mind of modern people that can often be seen as the return of people to a simpler, more basic human reality.

Without any doubt, this pandemic will have significant effects on human life from now on, but it is worth noting what's happening as an experience without saying certain things about how much of the effect, which was in question during the experience, will be permanent. As a result, the unknown enemy coronavirus has established an unprecedented power in the life of humankind with its invisible, inaudible, teeny-tiny creature with still unknown specifications.

He did what no power could ever do. It has united all the world states that have been in conflict, compete, and fight with each other on the basis of a common problem. It suspended all institutions, which have become inevitable of the global life culture and considered as may interrupt the whole life even stop for one hour, until an unforeseeable future, changed the living habits, and put a brake on the life that was continuing at full speed. Almost killed before dying, and raised hell before the hell broke loose. Without any doubt, people with different beliefs also had different feelings and experiences, but it is useful to mention an expression of a citizen from a Muslim perspective in one of the dialogues took place at that moment: "Believers experience dying periodically with Hajj, fasting, and prayer. Experiencing this is a religious duty. Accepting the call that invites us to the experience that discriminates, divides, conflicts, detracts from, incorporates again routine, merges, and commonizes the life along with a group of believers causes us to experience that experience of dying from the death, teaches us who we are. Of course, people voluntarily accept that experience. This experience teaches that life is constituted of a game and fun. However, knowing that life is constituted of a game and fun does not encourage not to take life seriously, but rather to take it more seriously, and over its true meaning. In this way, it leads to the consciousness and willpower to not violate the law of the people, whom we are created from the same essence by being caught in the magic of a world that we cannot dominate, to not torture people, to not knuckle under oppressors, to promise not serving slavishly. We understand that nothing we think we have won in this world is permanent for us, nothing we think is ours belongs to us, and that all our existence belongs to Him" As we said before, everyone does not perceive and experience this process in the same way. However, it is worth saying that this experience is also noteworthy. Otherwise, everyone understands with their humane states and humane interpretation differences. And of course, this experience does not end with the same effect for everyone who experiences this process. As a matter of fact, now a virus is obliging people to live such an experience in another manner. It can be expected that an experience that instantly reset all the distances that the entire humanity has made in the name of science, technology, and development, will remind a bit of humility in the name of humanity to humankind. Because no matter what level of knowledge these kinds of experiences reach, it strikingly reminds us that what people do not know is still very little besides what they know.

Meanwhile, although the pandemic reminded us the size of the risk which globalization is under and our limits on the distances we have covered as humanity in the name of science, it also allowed us to demonstrate how actively the scientific acquis could be put in place to deal with such a crisis. While the coronavirus united the whole world against the common enemy in an interesting manner, we also had a remarkable experience of how all data of medical practice compiled from the whole world were evaluated in a common science and mind pool. The globalization of information also ensures the transfer of the health data of every individual around the world into a common knowledge pool. Moreover, this common pool does not even have a center and

this also has an impact on shaking the centricity of the West as applicable since the beginning of Modernity. This pool is not in the West, it is everywhere, even pointed out in this process that with the successful performances of non-Western countries, such as Turkey and South Korea, this information data more intensely flown here, and also evaluated as faster and more effectively as solution-oriented.

The most striking situation that emerged at this point is the situation of the countries that had performances very contrary to the images they represented so far and that are in a central position in the global order. The collapse of the health systems of the developed countries of the world that has become a legend in the world in terms of the development in the science, technical, and health industries have been experienced as a kind of scandal. It seems that the helplessness of countries such as the USA, England, France, and Italy that attract tourists from all over the world to provide healthcare to their citizens will actually bring more interrogation of the current world order after corona. Let's pass this topic to return later. When it is considered regardless of who is more prominent in this process, it is necessary to note that the cooperation developed between all the countries of the world on the basis of struggling with virus partnership is also an exception. This virus obliged this partnership, because if the virus cannot be destroyed in every region of the world at the same time, then the sole success of only one country does not save that country. The famous rule in sociology is thereby realized. A common enemy reinforces group loyalty and creates a new group consciousness (Coser, 1956). Indeed, due to the coronavirus, today very important traffic of solidarity and collaboration has occurred among many countries. However, again without any doubt, this solidarity is not at a level to eliminate all the conflicts or disagreements that are in question among all countries since the past. However, the aids particularly delivered by Turkey in this process to more than 70 countries, including the most developed ones, have created a type of ground for coronavirus diplomacy.

Pandemic as a Social Actor

If it was possible to attribute a mind to this virus by looking at these new patterns of solidarity and collaboration, it would be thought that it entered our lives to play such a role. Like it came for explaining our, as the humanity, status to us, to teach ourselves, the status of our humanity to us. Interestingly, it's like such a mind and target have been loaded into this virus. If we solve its biological genetics, we may not be able to read this message, but this effect is read obviously in its spiritual genetics.

In a sense, it gives the most painful experience of the integrity, fusion, and unity of a globalized, integrated, fused, embedded world. A virus that runs through the world's troubles, comes out of the agendas that seem like the most important and most vital ones and places itself at the center of the whole world's agenda. What kind of an actor, with what kind of influence and

penetration had an impact on all over the world's system as never had before in history? It has created a brand new experience with an unpredictable effect so far and continues to have this experience lived. Leave our recent history besides, there is no such incident in the history of humanity we know that transferred the whole world into some standard practices, merged the world at the same time at the same practices, and stopped an operating system completely. Of course, human history has experienced many wars, pandemics, natural or social disasters, and even world wars in the past. However, none of these events led to a simultaneous lifestyle effect across the globe exhibited against the COVID-19 pandemic.

Of course, the coronavirus had an impact not only on the dramas, panics, deaths, and diseases caused by it but also the impact shedding light on the nature, weaknesses, and meaning of our world that we have established so far. The famous Indian proverb saying; "When the last tree has been cut down, the last fish caught, the last river poisoned, only then will we realize that one cannot eat money." is now expressed not only for the white man who occupied the American continent but also for the effects of the coronavirus pandemic with its actuality buzzing in the ears of the world. The besotted state of humanity in reproduction, growth, rapid movement, production and consumption, and the money, goods, values, technologies, tools that are produced during this time were exposed to a shock of meaning that may not make any sense against coronavirus pandemic.

An important experience has been lived on the possible consequences of this pandemic, which caused the initiation of an important questioning on the priorities of defense, space research, health, technology and education by the governments all over the world, as well as transferring some areas such as textiles to the developing countries as a part of the international collaboration. On the other hand, we all saw how relatively mitigating were some global organizations against the people who had to lock themselves into their homes throughout the world and the global effects of a pandemic. As a result, the maintenance of life taken to home has been achieved with internet technology having a global network.

It is obvious that an exceptional case at the coronavirus scale will have a serious impact on our theoretical approaches that interpret the world, globalization, and international relations. While we were in the middle of the incident, we need to find a meaningful statement initially about what happened to us in these days when everyone is also focused on the post-corona agenda.

Between Remembrance and Oblivion
Will Nothing Really Be Like Before?

It is a reality that globalization as a sociological situation or globalization as an international order has facilitated the daily life but also made inequality

and injustice an unavoidable element of the order to the same degree. Globalization, which provided great opportunities for the fortunate segments of our global world, brought occupation, persecution, colonization, and wars for other segments. Moreover, when the conflicts between the central powers of the global world turned into wars, they took this war out of their territories to certain geographies of the globe. Afghanistan, Syria, Yemen, Libya, Iraq, Egypt are important areas of these wars, all of them are part of the Islamic World and Muslims are fighting and dying on behalf of all who fight. One of the characteristics of the global world in question is the insensitivity that the West, which is selling incredible sensitivity to genocides, human rights violations, and democracy, exhibits against the blood flowing in the Islamic geography. Instead of solving the Syrian crisis that is continuing for 9 years, the attitude exhibited by the West does not go beyond the measures to be taken against the waves of refugees arising from this crisis.

While the borders closed against the refugee influx bring about the globalization's denial of itself in a way, the new type coronavirus with COVID-19 code, which we encounter today, has already issued a serious invoice for this denial together with the results it caused. The most ambitious order that humankind can establish with his science, technology, transportation, and communication networks and comfort is being destroyed today with a threat that nobody predicts.

We are of course not at the end of the consequences caused by the COVID-19 virus, but what is foreseen now is that this pandemic will lead to very radical changes, developments in our lives. It is always said that nothing will be the same again as before. But what exactly will change? This incident has come up suddenly as to remove all other agendas and occupations from our lives, but what will happen when a vaccine against this virus is found and life returns to normal? Certainly, it will not continue in our lives with the same effect, but how much will be remembered and how much will be forgotten? Moreover, how permanent will some arrangements made due to the effect of this incident be in our lives?

When we look at the history of particularly epidemics and natural disasters in the world, we can easily say that what is suitable for human nature is forgetting rather than remembering or keeping in mind. In fact, we have countless examples of how many incidents that have taken place for a period in our lives because of being experienced intensively and then got out of our lives as if they had never been. Those who remember will surely remember, for example, the USA, which took action upon the invasion of Saddam Hussein in 1990, launched an attack against Iraq that was watched almost alive from the television screens of the whole world. Many words, phrases such as Patriot, Sortie that were expressed during that attack lasted for weeks and particularly gas masks and shelters that were brought to the agenda due to the terror and fear felt particularly by the countries near Iraq against the possibility that Saddam may use chemical weapons occupied the country for months.

A sociological research conducted by Edibe Sözen just a few years after this incident revealed that the people kept very little in their memory related to that incident (Sözen, 1997). Human memory is disabled with oblivion, but this disability has a dimension of being a defense mechanism created by human psychology possibly to deal with some traumas. As we mentioned above, the earthquake of August 17, 1999, did not fall from the agenda of the country for months or even years, but as a result, there is little left to remember from that earthquake today, and the country is still at the same risk of an earthquake that can repeat at any moment.

In addition to this, it should be noted that social memory is selective. We can also see that the experiences of the countries arising from conflicts with other communities, the collective enemies encountered or the cases occurred within the frame of defense are constituting a more permanent, long-term memory in them. The Spanish Flu, which emerged in 1918, for example, has cost the lives of two and a half times of 20 million people who died in the First World War, which has been experienced in the same period, in other words, 50 million people according to the records that are hardly accessible now. In fact, it is said that this flu is the cause of the war to end (Koçak, 2020). Spanish Flu transmitted to one-third of the world's population at that time. Even Max Weber, one of the great names of sociology, died in 1920 due to this flu. However, it is the indicator of this selectivity of the memory that nobody remembers anything, even after a short while, about such an incident that killed two and a half times of the people died in the world war, infected one-third of the world's population. In the study in which he carried out sociology, Faruk Karaaslan analyzes how and why particularly the identity establishing events found their places in the social memory even no death occurred (Karaaslan, 2019). Accordingly, we have many examples of the conflicts and tensions that we experience, particularly at the point where our friend-enemy relations are established, have more permanent places in the memory. Wars are the establisher cases that determine our sharing and law with other people today. It is the final version of the power fight that has enabled us to be we and by remembering them, we position our current situation. We do not have a chance to forget it. However, how this recall is, of course, about whether we won the last fight or not, whether we are defeated or what trauma we suffered if we were defeated. In any case, memory about relations with other people is not erased that easily. However, no matter how it was experienced with deaths or even in a traumatic manner, there is no enemy to be accused or confronted with deaths arising from natural disasters, so there is no enemy to establish himself and identity. Whatever has happened, there is no equivalent opponent to keep responsible for all. Maybe belief or acceptance that there is nothing to do against what comes from God. In fact, even now, we can watch the effects of this pandemic through the behaviors of people who want to overcome it and return to their normal life as soon as possible. Despite all the risks in China, Iran and even in European countries, when the extreme desire of the people to return to their normal lives as soon as possible and the behaviors exhibited after a slight normalization point out that this incident will not have a deep

impact on the memory of the majority of people. Even at the time of the incident, rather than the question, "how we will overcome this coronavirus?" many journalists, bureaucrats, academics, and social scientists who have locked themselves in their homes have focused on the question, "what kind of a place we will have as a country, society or company or group in the world after coronavirus?"

However, we should not forget the fact that such cases have other effects. As reminded by Koçak, the plague pandemic in Europe was an incident that has brought an end to feudalism (Koçak, 2020). It seems obvious that there will be new relations, level of consciousness, and behavioral patterns that this pandemic brings into our lives at the moment of its occurrence. These new or renewed behavioral styles are as follows:

1. In the world, particularly the trust to the international health institutions, we can expect the functions of the other international unions to be interrogated due to their impotency exhibited in this incident, the obligation of such unions, and institutions to renew themselves and maybe the emergence of new institutions. Even at the beginning of the incident, the USA announced the World Health Organization as guilty due to its failure in foreseeing this pandemic or taking the necessary measures and declared in the following phases that it is withdrawing its membership and so stopping its support. However, as the world's superpower, the USA has pointed out that its health system is incapable of providing the most basic human services to its citizens. The complete transfer of the health to the market, regardless of how advanced are the medical and health technologies are, revealed that it is left at a service level that is not equally reflected to the citizens and only accessible by the people who have a certain level of wealth. In fact, the signs of this were likely to be given not less than a hundred years, and that is why the biggest dream of most US presidents over the past century was to carry out health reform. However, even Obama, who has reached the closest point to this project, has not succeeded in taking the final step. The most decisive story behind the millions of homeless people in the USA today is the story of people who have to sell their houses to pay their big debts to health insurance. The USA may have very advanced research power and possibilities in medicine with its highly developed and high-budget universities. However, it is not possible to deliver all these science and medicines equally to all people as a service, because everything works according to the rules of the market economy and health is a service that only those who can pay benefit from. The coronavirus was a very important test that hit the USA just from this point and highlighted the USA as a very typical example in terms of the criteria of development. While Turkey provided free service for all its citizens for coronavirus from the tests to the treatments, the USA failed the test as a result of offering even the most basic services against money and until today, around 110 thousand people lost their lives, and it is ranked at the top in all classes about this in the world. The same has happened for many of the EU countries. England, Italy, France, Netherlands, Sweden, and Spain were the leading countries in this regard. In

fact, while the health systems of all other EU countries except Germany were paralyzed by the pandemic, more importantly, the EU countries were unable to exhibit solidarity with each other. Even Germany, which is relatively self-sufficient and considered as the capital of the EU, could not help the other countries. In Italy and Spain, which suffered most from this case, the reactions exhibited against the EU flags notifies that will be entered into a process where the EU's function will be thoroughly questioned. It seems that how EU, which is already in decline due to Brexit, will continue its path from now on and what it will give priority to will be a subject of a serious decision.

2. Interrogating the state functions of developed countries and rediscovering the importance of social state policies abandoned in favor of liberal or neoliberal policies. Recently, Turkey has become a country that has developed its model in this regard. Due to the privatization and free-market policies that it has implemented, although neoliberal imputations are made according to some classifications, it has been exposed to a unique mixed model due to the implemented intense social policies that cannot be found in any liberal model. "Let the man live so that the state lives" slogan that has a deep place in the traditions and customs of Turkey is processed like a philosophy deeply directing these policies. With this slogan, the state tries to actualize physical politics to keep all organs forming the community together as the organs of its physical integrity. In fact, this physical politics, in other words, to focus on the health and integrity of the political structure, will find more place in the agenda in the future due to the things to be experienced during the corona days in world politics. In fact, the most powerful tool of physical politics is nothing else than justice, and it is considered that the most important function of a state is to achieve this justice. Meanwhile, even if the justice in health has become one of the most important agendas of the world after the Cold War, no arrangements have been made to meet the demand for justice, particularly in the USA. On the contrary, this is the point that health policies brought in the direction of "no longer interfering with society and the economy under the influence of a new right-wing economic doctrine that defenses to leave the responsibilities entirely to the domination of the market, not to be intervened and to enable the state to give up its powers in this regard" (Turner, 254). Without any doubt, we can expect a strong reflection realization on these functions of the state in the post-corona world. Together, we will see the extent to which this will take us to reform.

3. The reality that the priorities in the production and consumption frenzy that is revealed, cared, and valued as a development index again by the developed countries will be under the pressure of change. Rather than the investments made in arm and technology, there will be more emphasis on human health and the delivery of this health to citizens fairly or equally. Concerning this, we can say that Turkey, Germany, and South Korean model will come to the forefront. As of the announcement of COVID-19 as a pandemic by the World Health Organization, Turkey immediately activated the measures and this pointed out how the health systems and policies developed in Turkey are

right. Indeed, although there is serious privatization and the presence of the private sector in the health system, there is also a structure that connects the entire system to the responsibility and supervision of the state. In such cases, it becomes obvious that the ability of the state to take decisions and implement them is very important. It is obvious that some of the liberal political regimes, which are difficult for the institutions to establish communication between each other when necessary due to their relative autonomy levels, cannot exhibit generosity despite all their economic sizes. The state has grown but started to exhibit spastic features as a political body. Organs can become unable to intervene when and where needed. It will be focused on that the most important feature of the system that enables the quick decision-making and intervention in Turkey is the newly implemented presidency system. The thesis, which was put into circulation in the first days of the pandemic on that more authoritarian regimes make and implement decisions on this issue in a faster manner, was abandoned due to the fact that the dictator regimes of Russia, China, Iran, and the Middle East started to be affected more by this process. By this way, it has been seen that not only the USA, but also the countries such as Russia and Iran do not pay the importance that they attach to imperial expansion and penetration among their policy priorities to the health of their citizens, and this will lead to a serious questioning on the function of their state, particularly among their citizens.

4. In the social sense, the demand and pressure towards ensuring information flow throughout the world, particularly in the field of medicine, and the globalization of the information at the global level, rather than taking the information under the monopoly of some private pharmaceutical companies. In fact, from the beginning of the pandemic, there was an expectation that this was a conspiracy of pharmaceutical companies that would benefit from the pandemic, and that they would come up with the vaccine immediately and make the whole world depends on them. Such conspiracy theories and expectations have been expressed in TVs, newspapers, and social media. However, it was observed that no central mechanism runs for the development of remedies against the disease, on the contrary, it was observed that the information produced in every part of the globe with a decentralized mechanism was presented to the benefit of the globe again by taking the best-organized parties into consideration. In the meanwhile, it was seen that Turkey, although it is not the world's largest and most centralized country, almost took the lead in the entire performance and did not convert this into a simple daily interest. Probably a spiritual pressure will occur for the development of a common benefit and conscious in the whole world when there is any responsibility for the health and particularly pandemic in question. The question of which motivation will lead to the development of such medicines and technologies in the absence of interests and income assumes that the motivation that directs all scientific developments is capitalism, and this is not wrong. However, this time, it can be said that the solution strategies exhibited against the current pandemic at this point indicate the desire to exclude this subject from the market.

5. We can anticipate that international information sharing and collaboration established against the coronavirus will continue, however, during this, the quick completion and development of a registration system that does not exclude any people at the point of monitoring the individual health data of citizens of all countries of the world will be realized. In fact, this would be an arrangement that the citizens had to request from their states due to a disaster foreseen as a scaring information and supervision privilege of authoritarian regimes in the 1984 novel (Orwell, 1984) that is one of the famous ones of reverse-utopia literature of George Orwell. To all outward appearances, this follow-up that was initiated to observe the health status of each individual during the struggle with coronavirus provides an extreme realization of a utopia foreseen with globalization. In other words, this picture that is the subject of films and science fiction novels has come true today, but not as a nightmare or disaster scenario as in those films and novels. The control practice, which has been realized for this matter and converted into a system, has generated a high level of satisfaction for the citizens. Citizens voluntarily participate in this control and supervision system considered as established by the state in favor of the citizens and does not cause serious discomfort. Indeed, this project, which has already been implemented majorly through the smartphones that communication technology has placed in each of our pockets will now be realized as to cover everyone.

6. The two-three months period during when people locked themselves into their homes has also generated an interesting opportunity for the promotion and adoption of many possibilities and convenience brought to our lives by communication technologies that are considered as a manifestation of globalization. People with the opportunity to work from home probably adopted to have their work performed from home, to follow the world's agenda. In fact, digital technologies have provided all the necessary opportunities for this for a long time. It is increasingly possible and easy, cheap, and even attractive to attend meetings with the tele-conference system in the comfort of your place, to organize conferences, lessons, business meetings, to carry out the business from home and to transfer it to the information and decision pool over the network. However, these facilities provided by technology had not reached such a widespread use until the great locking at home during the corona days. Though, these possibilities were like discovered during the corona days and became a subject of intense use as a possible and wide place for meetings of academic, scientific, media, or business world. Of course, the opinions of many users are that such meetings do not supersede face-to-face lessons, meetings, interviews, or conferences, but those who say the opposite are not less than this. It can be assumed that this method can be used more intensely at least from now on as it is seen that many routine meetings that were held after international tiring travels can be realized more cost-effective, efficiently, and well with the same results in this way.

7. If we read the biggest message of the coronavirus as "responsibility", we would not make a mistake. Individual, social and international responsibility. A trainer side of the coronavirus has also emerged in this way. It seems that one of the first lessons it taught was the possibility of that the irresponsible behaviors of others may endanger our lives, as well our irresponsible behaviors may endanger the lives of others. Organizing our social behavior on this principle that is also the basis of ethics is essentially a primary measure of civilization. We also had to think about the consequences of every behavior we exhibit in the social environment may have an effect on others. We were in heedlessness, now this warning must have enabled us to recover. Thus, we have to remember or question the limits of individual freedoms. How much of our behavior remains within our individual or personal limits? We are encountering a big consciousness shock that everyone should be able to primp within the framework of social responsibility in this regard.

Of course, besides urban life, this situation brings new responsibilities in international relations at a global level. The countries will have to give up the luxury of saying, "everything that happens within my country is only my concern." While the world affects each other at the point of burden, it is inevitable for the countries to become more open to the control of the world within themselves.

We are talking about openness and supervision at the basic human rights level. Nowadays, it is said that China, the source of coronavirus, has recorded enough progress in struggling with the virus by leaving all countries behind. However, there is no possibility for us to know this. The reason for this problem is the non-transparent attitude of China towards the world for this matter. Since it hides something present in its country but not ending there, the cost of the experienced delay to the world is obvious. Even today, no one can predict how true or false the things they say. Even so, it is no longer possible to avoid a responsibility such as not hiding information and sharing data against the rest of the world and struggling with this common disease in collaboration. It is obvious that those who failed to undertake responsibility in this matter will cause a serious threat not only to themselves but also to the rest of the world.

The Irony of Virus without Boundaries

On one hand, while the international solidarity exhibited to the common enemy approaches the countries to each other and merges them in a common problem, various practices and sensitivity by developing a common responsibility, on the other hand, the realization of these common behaviors by putting physical distances between the people is like the irony of the virus. Now all people are united by getting far from each other, detaching and isolation against the virus without boundaries. This is the awesome irony of the virus. By separating all of us from each other, developing a common consciousness, a common language, and a common sensitivity in us. The people who got used to dissociate, conflict and bicker by closing the distances through speaking, standing close to each other and closing the distances are now merging and uniting by moving away

from each other due to a virus. Even this image gives the impression that the virus is a smart virus that does a very meaningful, consistent, and planned job. We are all in the same world and we are all responsible for each other. In so much that we can all be in disaster because of the irresponsible persons among us. Therefore, we do not have the luxury of saying "this is only my concern" about dangerous things. We have to be more sensitive and responsible for where our freedoms touch the freedom of others, moreover where it calls the disaster of others.

Maybe we are all exposed to the same test on this scale for the first time, a test that hits us at the same place and unites us although our differences and distances. But we do not hesitate to be separated from the answers we give against this test. We do not hesitate to turn this incident into an opportunity for our political gains. However, we are in a situation where we need to open our eyes and ear and understand what this virus is telling us. The discussions on coronavirus even became an area for competing over Friday prayers, Umrah or nightclubs, European travels, and match competitions.

However, we saw in practice that this virus did not distinguish any of them. It did not work for anyone who tried to put this virus on his side for his political gains. This does not seem like a virus to be deceived and drawn to own side. On the contrary, indeed by taking us apart, it even gave us a lot of opportunities to rethink the meaning, value, and validity of our social distances. How it unites us while taking us apart, we could set off just from this point. Every day, indeed this invitation comes to us on an occasion, but for the first time, came that much precisely, that much decisively and that much effectively. Certainly, there were people who opened their eyes and listened.

Turkey is not exempted from Rules of Sociology

Nobody has any doubt about the ultimately successful execution of the process in struggling with coronavirus by Turkey. It was seen that 18 years of health policies and investments really gave the advantage to make a difference to the whole world in the management of the process. Although the number of infected cases can be considered as relatively high in the world rankings, the services received by these patients and the coverage of these services by the government possibly took Turkey to the forefront as one of the most successful two or three countries of the process in terms of the low ratio of the deaths among the infected cases. Since the process was ongoing when this article was being written, there are changes in the number of infected cases and deaths day by day, however, it is obviously seen that this is an ultimately successful picture for Turkey. Without any doubt, the success of health policies in struggling with a disease does not always mean that the society is recording the same success in this regard. There is a society that is in a dynamic interaction with the diseases and like all other societies, Turkish society is also not exempted from the rules of sociology. We can say that not only the medical struggle with the disease but the attitude of the society in Turkey against such a pandemic and the measures taken against this pandemic were very important for the

success of the struggle. Different behaviors exhibited in different districts of Istanbul when the implementation of a lockdown is announced during the first days of the pandemic proved that it would not be sufficient to implement some policies by heart. The same surprising and unexpected, unforeseen reaction is a chaotic situation experienced in the society against the implementation of a lockdown during the weekend that is announced just two hours before. In general, this was not symmetrical with such successful struggling performance, it was a reality that such case was not in compliance with the general appearance of Turkey until that time and indeed could be considered as an injustice in the general outlook of Turkey. Because Turkey was not really that. But this provided an important example precisely showing that Turkey is not a society that is exempted from the general rules of sociology.

When it comes to the rules of sociology, it is necessary to immediately remember that it is not possible to make precise predictions. Various modelings have been carried out by sociologists about how individuals will behave when they stay in such situations in society. All modelings come and go between that the people may drag the society to disasters with mathematical calculations or acting selfishly or the fact that the disaster of society may be the disaster.

There are such examples:

1. There is a shortage of water and citizens are directed to reduce water consumption. If every citizen responds to this request with his interest, then no one will stock up on water. Obviously, the accumulation made by each person has an insignificant effect on the supply of the city, but it is a fact that there will be an impertinence. On the other hand, if everyone behaves for his benefit, then the results will be a disaster for everyone.
2. If everyone does not pay their taxes, the functioning of the state may collapse. Likewise, if everybody, including himself, chooses to pay his tax, then there will be no non-payer person. Of course, the best thing for the person is the payment of the tax by everyone except him. But when everyone thinks in this way, a disaster situation arises again.
3. After many years of surplus production, farmers voluntarily decide to reduce their crops to raise prices. But no farmer makes production to influence the price, so each begins to produce what he can produce and to sell whatever he brings, and so a surplus of production occurs again (Poloma, 1993: 179).

Conclusion

In the light of all the above evaluations and data, could the reactions of the society to the measures taken for coronavirus be predicted? What makes mathematics difficult in sociology is the cultural differences in this regard and that people do not always act rationally. When fears and anxieties start

to guide behavior, sociology does not stop, of course, takes an appropriate approach for this.

In the meanwhile, despite the idea that everything is under control with the unprecedented technological developments, the human behavior works with a messy paradoxical logic. If we include mathematics into this, all the possibilities of human behavior cannot be exhausted beforehand. In addition to the examples we have given above, let's write the following example extracted from the same source here:

"Two unfriendly countries are preparing their military budgets. Each country wants to establish a stronger army and seize the military advantage over the other, and each spends accordingly. Eventually, they both have the same strength and become more impoverished" (Poloma, 1993: 178).

Today, it is revealing that states that produce weapons technologies capable of destroying each other in the most creative way and for thousands of times have not thought of anything to let their people live honorably. A high price is paid for the most basic health services in the USA, relatives are forced to give up all their assets to bury the dead ones. In one aspect, this is the picture of a person who has put a ladder to space, and with another aspect, the picture of leaf cast of the expression vitality.

References

Beck, U. (1992). *Risk Society, Towards a New Modernity,* London: Sage.

Coser, E. L. (1957). *The Functions of Social Conflict,* New York: The Free Press.

Elias, N. (2000). *Uygarlık Süreci Sosyo-Oluşumsal ve Psiko-Oluşumsal İncelemeler,* Cilt 1, *Batılı Dünyevi Üst Tabakaların Davranışlarındaki Değişmeler*, Ender Ateşman, İstanbul: İletişim Yayınları.

Elias, N. (2002). *Uygarlık Süreci Sosyo-Oluşumsal ve Psiko-Oluşumsal İncelemeler*, Cilt 2, Toplumun Değişimleri bir Uygarlaşma Teorisi için Taslak, çev. Erol Özbek, İstanbul: İletişim Yayınları.

Giddens, A. (2004). *Modernliğin Sonuçları*, çev. Osman Akınhay, İstanbul: Ayrıntı Yayınları.

Karaarslan, F. (2019). *Toplumsal Hafıza: Hatırlamanın ve Unutmanın Sosyolojisi,* İstanbul: Ketebe Yayınları.

Koçak, O. (2020). Salgın ve Bellek. *Birikim Dergisi*. Retrieved from: https://www.birikimdergisi.com/haftalik/10100/salgin-ve-bellek (01.06.2020)

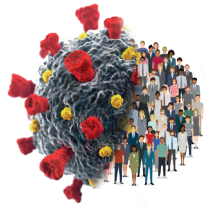
Orwell, G. (1984). *1984*, çev. Celal Türker (69. Baskı, 2020), İstanbul: Can Yayınları.

Poloma, M. M. (1993) *Çağdaş Sosyoloji Teorileri,* çev. Hayriye Erbaş, Ankara: Gündoğan Yayınları.

Sözen, E. (1997). *Medyatik Hafıza,* İstanbul: Timaş Yayınları.

Turner, B. S. (2011). *Tıbbi Güç ve Toplumsal Bilgi,* çev. Ümit Tatlıcan, Bursa: Sentez Yayınları.

Yağcı Uzun, S. (2020). Veysel Bozkurt ile mülakat. *Hürriyet*. Retrieved from: https://www.hurriyet.com.tr/yazarlar/sibel-bagci-uzun/salginin-belirsizligi-huzursuzlugu-artirdi-41501744 (01.06.2020).



Rethinking the Welfare State: Social Policies during the COVID-19 Pandemic and in the Post-pandemic Period

Mehmet Fatih Aysan

Assoc. Prof. Mehmet Fatih Aysan

Mehmet Fatih Aysan is Associate Professor of Sociology at Marmara University. He earned his Ph.D. from the University of Western Ontario (2011) and thought Sociology in the same university (2010-2012). His sociological interests are rooted at the intersection of demography, family, sociology of work, and social policy. His study centers on how labour markets and social policies combine to influence the welfare of societies. His research projects were supported by the TUBA, EU, IDRC, and TUBITAK. Dr. Aysan's work has appeared in edited books and peer-reviewed journals such as Routledge, Palgrave, Springer, Population & Development Review, Canadian Journal of Sociology, Emerging Markets & Finance.

Rethinking the Welfare State: Social Policies in COVID-19 Pandemic and the Post-pandemic Period[1]

Mehmet Fatih Aysan
Marmara University
maysan@marmara.edu.tr

Abstract
This study will examine the possible effects of COVID-19 on social policies. Welfare states have long faced economic, social, demographic, and environmental problems. The intense pressure of the COVID-19 pandemic on social policies -particularly healthcare and employment- is a major challenge for welfare states that are established through nation state formation and financed through social security premiums and economic growth. In this context, it is inevitable for the welfare regimes to be re-structured and for the state to collaborate more closely with other actors (the family, civil society, and the market) in the distribution of social welfare. In addition to the transformation on a national scale, there are regulations to be made regarding the distribution of social welfare on a global scale. The current COVID-19 pandemic requires considering the possibilities of a global welfare regime, which aims to reduce income inequalities and to achieve an equitable and democratic regime shaped by comprehensive regulations, and where global welfare is again distributed on a global scale.

Keywords
Welfare State, Social Policies, Pandemic, COVID-19, Risks

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

COVID-19 that first appeared in China as a local problem, gained a global magnitude after it spread to the neighboring countries and Europe. The spread of the virus to America and Africa in combination with the rapid increase in death rates no comma triggered governments to take significant precautions. The economic burdens of the pandemic on the healthcare systems and the precautions taken by the governments during this period caused the reassessment of the welfare state and social policies. Healthcare systems, employment regulations, and precautions taken for the most vulnerable groups are the most prominent social policy implementations. Even though the measures taken against COVID-19 continues to improve and differ during this process, there is enough data to understand the reactions of the welfare states during the first stages of the pandemic.

This study aims to discuss the future of social policies in regard to social, economic, and political circumstances after the pandemic. The main claim of this study is that the welfare regimes are path dependent and they will develop social policies that are specific to their institutional and historical characteristics. In addition to this, it can be claimed that the pandemic will accelerate the ongoing restructuration of the welfare regime. There is a need for fair, inclusive, and sustainable regulations on a global scale for social policies.

This study examines the effects of the COVID-19 pandemic on social policies and welfare states and how these social policies will evolve post-pandemic. This study includes four sections. The first section will provide a brief description on the institutionalization of social policies in different welfare states. The second section will cover the first responses of countries to COVID-19 and social policy practices. The third section will provide details on the risks welfare states have been facing for a long time. The fourth section will address

the post-pandemic evolution of social policies based on former experiences. Conclusion will provide a brief discussion on the evolution of Turkish social policies post-pandemic.

Development of Social Policies

Even though the formation of the welfare state and modern understanding of social policy can be traced back to the 19th century Bismarck's Germany, it was institutionalized and widened in Europe during the second half of the 20th century due to the Great Depression of 1929 and heavy destruction caused by the immediate outbreak of World War II. According to Mullard and Spciker's (1998) approach, the modern welfare state formation differs based on various ideologies; nonetheless, it has become a key player in welfare distribution in the 20th century.

The welfare state can be viewed as a deep form of protective state (Rosanvallon, 2004). The welfare state state, on the one hand, protects individual gains such as civil and political rights, on the other, undertakes social developments such as improving social services and redistribution of wealth (Rosanvallon, 2004: 22). Issues that were previously viewed as individual or family problems such as unemployment, disability, seniority, were now recognized as social problems and managed by social policies (Esping-Andersen, 1999: 33). Although social risks vary in different periods and societies, nation state and capitalism are preconditions of a welfare state (Pierson, 2007: 106). To ensure the preservation of these preconditions, for the first time in human history, state took active role in the distribution of social welfare and sought to decline social inequalities. While examining the social citizenship, Marshall (1964) makes a distinction of civil, political, and social rights when emphasizing the importance of social rights on welfare state formation and legitimation of the economic system. Social citizenship causes the revision of the capitalist class system while also preventing persistent economic inequalities (Marshall, 1964: 122). Referring to the protective role of the state, it can be argued that welfare states have three fundamental functions: ensuring minimum wage for individuals and families regardless of property and occupation; declining of mistrust due to family and individuals' protection against sudden loss of income; ensuring for all citizens the best quality social services, regardless of class and status (Briggs, 1961: 228). Five policies come forward within this framework: work and unemployment, pension system, healthcare services, shelter, and family aid (Beland, 2010: 28).

Management of social risks and distribution of welfare falls to four integral welfare actors, namely state, market, family, and civil society in varying proportions (Aysan, 2018). Similar categorizations such as welfare mix and welfare plurality are discussed taking into account functions of varying different actors such as occupations and religious institutions (Gilbert & Terrel, 2013; Ozdemir, 2004).

It is impossible to suggest a monolithic welfare state in all industrial countries with similar features and social policies. Based on Titmuss's (1974) studies, Esping-Andersen (1990) analyses social policies in liberal, social democratic, and corporatist threefold "welfare state regime". This classification was further developed in the following years with different welfare regime groups. (Castles & Mitchell, 1993; Fenger, 2007; Gough, 2001; Korpi & Palme, 1998). Various classifications were made, such as Southern European (Mediterranean), East Asian or Confucian, Latin American, and Post-Soviet welfare states.

Four different welfare states come forward when we examine the welfare regimes and social policies. Social Democratic welfare regimes, such as Sweden and Norway that prioritize universal social rights, differ from other states with state centered welfare distribution and operation. In addition, Continental European corporatist welfare regimes, such as Germany and France, distribute social welfare based on occupational social status. This group is also categorized as Conservative welfare regime since it prioritizes class differences and hierarchy. Civil society and market in Liberal welfare regimes including Anglo-Saxon countries such as the US and the UK, with highly identified social inequalities, play more active roles in managing social risks than the state and the family. welfare regimes that institutionalized after the first two welfare regime groups, differ from other welfare regimes since it prioritizes family rather than distribution of welfare and use populism and patronage as a tool for welfare distribution.

In various countries, social policies are generally financed by social security contributions of employees and tax. State played a dominant role in economic life when Keynesian microeconomic policies came forward after World War II. Specifically, the welfare state which has government provided economic growth, supported national production with high tariff rates, closed off to foreign competition and based on Fordist production structure has successfully endured for a long time. Key to this success was the implicit social contract among employee, employer, and the state.

However, criticism towards welfare states increased after the oil crises of 1970s. These criticisms are suggested to be based on two political approaches. The first criticism by the leftists claimed a lack of social inequality that legitimatized the capitalist system thus delaying the revolution (Offe, 1984). Liberal Economists, particularly Hayek (1960) and Friedman (1962), argued that the welfare state is massive in size, cumbersome, reduces the freedom of venture and negatively affects the individual and the social welfare. The report published by OECD (1981) claimed that the welfare state was in crises due to public expenditure and budget problems. There were several reforms in the last forty years that aimed to reduce public expenditure, address the changing social needs, and sometimes led to neo-liberalization. However, since the OECD declaration of welfare state crises, there was not a serious drop in social spending of OECD countries. As shown in Table 1, while there is a stagnation in the last ten years, social spending remained high due to an increase in senior population.

The OECD average in public expenditure for gross domestic product (GDP) medium was 14% in 1980s; it was up to 20% in 2018. Turkey has one of the highest increases from 2% to 13% in social expenditure amongst these countries.

Table 1. Public Social Expenditures GDP Ratio in Selected OECD Countries (1980-2018)

	1980	1985	1990	1995	2000	2005	2010	2015	2018
Australia	10.3	12.1	13.1	16.9	18.3	16.7	16.6	18.5	17.8
Belgium	23.1	25.6	24.4	25.2	23.5	25.2	28.3	29.2	28.9
Canada	13.3	16.4	17.5	18.4	15.8	16.1	17.5	17.6	17.3
France	20.1	25.2	24.3	28.3	27.6	28.7	31.0	32.0	31.2
Germany	21.8	22.2	21.4	25.2	25.4	26.2	25.9	24.9	25.1
Italy	17.4	20.1	20.7	21.1	22.7	24.2	27.1	28.5	27.9
Japan	10.0	10.8	10.9	13.3	15.4	17.2	21.3	21.9	21.9
Mexico	-	1.9	3.1	3.7	4.4	6.1	7.4	7.7	7.5
Norway	16.1	17.2	21.6	22.5	20.4	20.7	22.0	24.7	25.0
Netherlands	23.3	23.8	24.0	22.4	18.8	20.2	17.8	17.7	16.7
Portugal	9.5	9.8	12.2	16.0	18.5	22.3	24.5	24.0	22.6
South Korea	-	-	2.7	3.1	4.5	6.1	8.2	10.2	11.1
Spain	15.0	17.1	19.2	20.7	19.5	20.4	24.7	24.7	23.7
Sweden	24.8	27.0	27.2	30.6	26.8	27.3	26.3	26.3	26.1
Turkey	2.2	2.0	3.8	3.4	7.5	10.1	12.3	11.6	12.5
UK	15.6	18.2	14.9	16.7	16.2	18.3	22.4	21.6	20.6
US	12.8	12.6	13.2	15.1	14.3	15.6	19.4	18.8	18.7
OECD Average	14.4	16.1	16.4	18.0	17.4	18.2	20.6	19.0	20.1

Source: *OECD, 2020a.*

Not: There is no 2018 data on Australia, Japan, Canada, Mexico and Turkey. Closest date is used for 2018 data.

Responses to the Pandemic

A comprehensive examination reveals countries' political response to the pandemic varied. COVID-19 first appeared in Wuhan, China, and within a couple of weeks, it was detected in Thailand and South Korea. Cases and deaths were reported from France, Italy, and Spain at the end of January. On March 11, 2020, The World Health Organization (henceforth WHO) announced COVID-19 as a pandemic. Turkey had its first COVID-19 case on the same day. Even though it was relatively slow to spread to North America, it become the new centre of the pandemic in May.

The WHO's failure to effectively and widely warn about the severity of COVID-19 and the initial assumption that it would only effect a region much like SARS or MERS caused several countries to be caught unprepared. In addition to this, countries such as the UK, Sweden, and Netherlands' decision to impose herd immunity caused the virus to spread much rapidly. Although countries' first reaction to the pandemic was diverse, subsequently many countries adopted similar responses. Table 2 shows selected countries' social policy responses to the pandemic. Large gathering areas in countries, such as schools, malls, restaurants, cafes, gyms, and prayer centres performed under some restrictions or were in time closed down to prevent the spread of the virus. Mandatory closure of numerous workplaces or transitioning towards flexible working hours made employees reconsider their work hours. In order for employees to maintain their work status, countries considered in this study except Mexico all developed new regulations. During this period, income support was available for self-employed people as well as those that were unemployed during this period. However, there were no long-term regulations for employees who were laid off during this period. In addition to this, in several countries, healthcare workers and their families were provided various income supports as well. Employment regulations and income aids varied according to each country, however, they were based on similar policies.

Countries differed in healthcare and care policies. For instance, America, Brazil, South Korea, Netherlands, Spain, Italy, and Norway did not necessarily reserve additional resources to fund their healthcare system; other countries formed additional resources to lessen the burden of the pandemic on the healthcare system. In addition to this, the demand for basic needs such as diagnostic tests, protective gear, and ventilators. Some countries such as Turkey quickly produced these essentials in the country and distributed to others. Basic needs and care services were not effectively provided for the elderly in most of the countries.

Table 2. Social Policies on the Pandemic of Selected Countries

	Confinement Measures	Income support to sick workers and their families	Income support to persons losing their jobs or self-employment income	Helping firms to adjust working time and preserve jobs	Regulations concerning layoffs	Increase supplies of diagnostic tests, protective equipment, ventilators, essential medicines	Protection of the elderly	Additional funding/ financing for the health system
Australia	√		√	√		√	√	√
Belgium	√	√	√	√		√	√	√
Brazil	√	√	√	√		√		
China	√	√	√	√	√	√		
Canada	√	√	√	√		√		√
France	√	√	√	√	√	√	√	√
Germany	√		√	√		√	√	√
Italy	√	√	√	√	√	√		
Japan	√	√	√	√		√	√	√
Mexico	√				√	√	√	√
Netherlands	√		√	√		√	√	
North Korea	√	√	√	√		√		
Norway	√		√	√		√		
Portugal	√	√	√	√		√	√	√
Russia	√	√	√	√		√	√	√
Spain	√	√	√	√	√	√	√	
Sweden	√	√	√	√		√		√
Turkey	√	√	√	√	√	√	√	√
UK	√	√	√	√		√	√	√
US	√	√	√	√		√		

Source: *OECD, 2020b; The Health System Response Monitor (HSRM), 2020.*

Periodic global economic crises are inevitable due to the nature of the capitalist system. The COVID-19 pandemic has shown shown that this is not just a temporary health issue, but rather brings with it serious social and economic threats. Beyond these conditions, the pandemic indicates a profound systematic global crisis that deeply upsets the fundamentals of the welfare state. Even though this period brought with it entwined problems, three are the most prominent. First of these is that most countries have not made accurate and on time responses since the beginning of the pandemic. Failure of the politicians to grasp the significance of the situation and their attempts to control the rapid spread of the virus with palliative precautions caused rapid rise in deaths in countries, such as the UK, the US and Brazil. Healthcare system crisis is, however, based on its long-term structural problems. While aging of the population and increasing life standards added to the burden on healthcare system, countries' failure to develop new policies on systems financial sustainability made these malfunctions noticeable. As can be seen in Table 2, many countries for this reason had to make extra financial contributions to their healthcare. Lastly, rapid rise in unemployment and economic constraints caused by the pandemic will have long lasting effects. Data on employment and commerce can provide detail on the extent of economic problems. For instance, China's export in the first quarter of 2020 dropped 13% compared to the first quarter of 2019 (OECD, 2020b). The US employment in April decreased 20 million, while unemployment rose to 15% (Bureau of Labor Statistics, 2020).

Risks for Welfare States Ahead

The pandemic period intensely engaged the public agenda with variously questioned and criticized social policies, and caused great discussions on the welfare state as we know. There are four fundamental dynamics that challenge the welfare state as we know: expanding economic issues, demographic shift, social change, and environmental problems.

Intensifying economic problems

The economic growth that did not yield employment has been widely discussed since 1990s (UNDP, 1993). During this period, even with the economic growth, post-war employment could not be attained. Rifkin (1995) declared "the end of work" by associating this development with the 3rd industrial revolution and market centred policy. Even though there were new job opportunities for white collar workers in service sectors, when compared to the security and full-time work Fordist period entailed, these unstandardized jobs were short term and insecure and brought less income.

With globalization, production shifted towards developing countries and Asia, especially after 1980s. Welfare states, which were financially dependent on premiums and tax, had immense economic loss. Slower economic growth made it difficult to comply with the growing social equality demand and increase in social spending. Furthermore, the recent technological developments, robotization of production caused reduced long-term and secure employment

and decline of income. Even though some claim that developing sectors, such as information technology, finance, and logistics have increased employment, its effects on total employment ratio is still low. These new sectors somewhat increased employment rates; however, whether these are stable and offer good income is debatable. Moreover, the changing employment conditions that bring hardship on individual's economic circumstances and add psychological pressure are some of the problem areas (Ehrenreich, 2001; Sennett, 1998). These economic fluctuations and growing insecurity increased over the years. The financial crises of 2008 that began in the US and spread around the world disrupted employment structures and pension systems, especially in industrialized countries. This economic crises raised the question on financial sustainability of the welfare state, yet also caused increasing numbers of unemployed, poor, and homeless to feel insecure (Hemerijck vd., 2012).

Demographic transformation

The world population has rapidly aged, especially within the last 30 years. Today, 65 and older population constitute up to 28% in Japan, near 23% in Italy and about 9% in the world (United Nations, 2019). Even though this demographic change especially affected Southern Europe and Japan, for the first time in its history, the whole world is aging. When generally studied the aging of the population is due to aging at the bottom and aging at the top. Aging at the bottom is the rapid decline in fertility rates leading to an overall decrease in youth in the population. Aging at the top is defined as the slowing of the mortality rates, longevity and overall increase of elderly in the population.

In the last 70 years, Western Europe's life expectancy at birth increased from 68 to 82 and 47 to 72 worldwide (UN, 2019). Social and economic risks produced by aging caused the discussion on demographic shift and its effects on social policies. Discussions on ageing issues in welfare states are mostly based on retirement pension systems, ongoing reforms, and its implications (Taşçı, 2010; Aysan, 2012a, Aysan, 2019). The most important factors that threaten the sustainability of the welfare state, which is based on post-war premiums, is the aging populations' increasing needs in health care and the increasing burden on the pension system that is based on negative and positive balance. When these expenses are examined, the OECD's health spending as a share of GDP went from 4.1% in 1980 to over 5.3% in 2015; however, elderly spending went from 4.8% to 7.0% (OECD, 2020a).

Aging population is the result of both the success and the failure of the welfare state. Its success because the developing healthcare system and services rapidly increased the life expectancy rate at birth. Its failure since individuals who are affected by economic and social changes were not provided necessary social policies to ensure the formation of a solid family to raise children. Industrialized countries drop in fertility rate reveal the insufficient policies, especially family regulations, employment and child policies. Current fertility rate in Italy and Japan is 1.3; while it is 2.2 in Turkey and 2.5 globally (UN, 2019).

Social changes

While there was a more consistent social structure during the institutionalization of the welfare state, social change rapidly increased, specifically in 2000s. General changes with the use of communication technologies and consequently increase in interaction, secularization, and individualization deeply affected the welfare state that was shaped by a more consistent society. Within the last 70 years, increase in women's education and participation in paid labor has led to a change in the structure of the family and gender based domestic work. Change in the family structure such as delayed marriage, decrease in fertility rates, increasing divorces, brought with it new social risks. Risks (i.e. child and elder care, unemployment, and disability) alongside rapid structural changes could not be sustained by family and women who traditionally provided unpaid care. During this period of social change, the state and the market took more of an active role as social welfare providers, with institutional long-term care support and various insurance services during this period.

In addition, starting from 2000, conflicts in Western Europe and Northern Africa brought with it mass waves of migration. Globally, there were 174 million immigrants in 2000; this number reached 221 million in 2010 and 272 million in 2019 (UN, 2019). About 11% of these immigrants were refugees or asylum seekers. Today, more than half of the immigrants live in European countries with strong social policy practices (82 million) and Northern America with significant job opportunities (59 million). Even though immigration enriches the host nation's society and culture and brings new economic opportunities to; nevertheless, it increases social policy expenses and creates new financial burdens for the welfare state. On the other hand, for low paying jobs that require no qualification or certificate, citizens may view immigrants as threats to them and their jobs thus it can cause increasing ethnic chaos and discrimination. In order to solve these problems, increase in multi-cultural practices, enrichment of adjustment policies, and a re-evaluation of employment policies are needed. However, all these increase the burden on welfare states.

Changing social structure in terms of ethnicity, religion, and culture poses new risks for welfare states that protect their citizens' social rights within the boundaries of the nation state. New risks brought on social change if not managed right threatens the future of the welfare state and social harmony. Under these circumstances, the reason for populist discourse and the rise of the racist parties can be attributed to the reactions of the blue collar workers to an increasing hardship while facing decreased social support supplied by family and close friends and a competitive job environment created by mass immigration.

Environmental problems

Social policies in welfare states tried to ease the social risks and market failures, and at the same time legitimized the capitalist accumulation and economic growth paradigm. However, capital accumulation and economic growth are based on intensive use of the fossil fuel energy source, constant

increase in consumption, and growing discrepancy between the rich and the poor countries. Natural disasters and environmental problems, such as global warming, food shortages, floods, earthquakes, and epidemics pose a threat to the welfare states that are established upon stable society structure and economic progress. Increasing number of studies show that global warming and other environmental factors affect well-being. Welfare states are sometimes analyzed with concepts such as "ecosocial welfare" (Fitzpatrick & Caldwell, 2001) "sustainable welfare" (Gough, 2015) "ecosocial policy" (Hirvilammi & Helne, 2014). However, inevitable natural disasters and their effects on human life stressed the re-evaluation of policies that only targeted economic growth and worked hard to achieve sustainable and eco-friendly social policies.

The COVID-19 pandemic caused mass unemployment in short time and widened the economic crises. The ongoing environmental problems, such as drought, air pollution, excessive use of natural resources caused economic crises, migration waves and social dissatisfaction that welfare states are unable to tackle on their own and require global regulations.

Post-Pandemic Social Policies

The pandemic revealed that rich European countries, that can barely meet their healthcare needs, are unable to overcome the challenges posed by the virus, illegal immigrants, and contraband products by closing their borders. Thus, the virus reminded us the interconnected fate of the world through financial systems, production chains and societies. Due to abovementioned risks, it is unavoidable for welfare states to question the very foundation of the welfare state against the increasing social welfare needs post- COVID-19. The role of the welfare state, which is one of the four fundamental components in social welfare distribution along with family, civil society and market, increased after World War II. In other words, welfare regime began to apply state centered distribution of social welfare; and for the first time in history, the state came forward with institutions such as social security, education, social services, and health for social welfare distribution. However, under today's circumstances, in social welfare distribution state needs to form a better collaboration with other social welfare distribution actors (family, civil society, and market). Signs of what we can call the restructuration of the welfare state began to appear (Aysan, 2012b). For instance, in Scandinavian countries that are recognized for their generous social policy practices, the state collaborates with family and civil society in social welfare distribution. However, we cannot forget that every welfare regime with its own features will have to continue their social policies as path dependent. Hence, it can be claimed that in the post-COVID-19 period, states would follow three main routes: persistence of the ongoing social policies and welfare distribution with small reforms, reducing the financial pressure of the pandemic on the welfare state with neo-liberal policies, and forming a sustainable welfare regime in a global and national level in light of new conditions.

The first option, based on the burden placed on health and employment due to COVID-19, does not seem feasible. This pandemic displays that social welfare distribution, that challenge global problems, cannot be sustained by the current welfare system which is based on social security contribution and constant economic growth. Demographic aging not only causes a proportionate decrease in financing and financial difficulties in pension system that is supported by premium payments, but also brings additional burdens on health, long-term care, and pension system. In addition to this neo-liberal policies, which resulted in part-time jobs, less pay, and insecurity with outsourcing of jobs to other countries, cause insufficient collection of income tax and insurance premiums, which are the main source of finance for social policies. Changes in the social structure causes welfare states, which are based on gender division of labor and a stable social structure, to undertake many unpaid domestic services, which were previously performed by women. Hence, the welfare state does not appear to be sustainable for countries that do not have the capability to finance this increased cost through simple reforms such as those made after 1980s.

Secondly, some might argue neo-liberal policies as an effective means to solve financial problems of welfare states and provide practices that are more effective. The convergence approach in literature suggests that neo-liberal policies will result in different welfare state models to resemble that of the US and decrease the role of the state in social welfare distribution (Häusermann, 2010). However, analysis of financial reforms after 1980 suggests that gains of the welfare state tend to be overlooked from time to time, contrary to some claims not all welfare states adopted neo-liberal policies. In other words, different welfare states carried out appropriate reforms based on their particular historical and institutional structure (Myles & Pierson, 2001). Furthermore, the post-COVID-19 period have shown the central role of the state in delivering and maintaining the social welfare, and underlined the vital importance of broadening social welfare programs for the public. Due to current climate of citizens affected by the economic problems with increasing unemployment rates, as well as the grasp on the importance of universal healthcare, makes it unlikely that a move to neo-liberal policies will be a welcome change by the masses.

The emergence of the COVID-19 pandemic and related risks reminded us the global inter-dependence of nations. Third path in the post-pandemic social policies argue the adoption of a global welfare policy approach against global risks. Some important features of this new global social policy approach are global redistribution, social regulation, and social rights (Deacon, 2007). Nevertheless, global social policies do not just naively depend on international actors, but take into consideration local dynamics, politics, and ideologies while maintaining a global governance perspective (Yeates, 1999). In fact, this approach, although not fully, is applied in certain regions and in limited fashion for many years. The International Labor Organization (henceforth ILO) regulations enacted regarding employment, social policy guidelines the

EU imposed on the member states are some examples of such global measures already in effect. However, these measures as in the case of the EU can remain local and create problems in decision-making. Furthermore, the EU's power in enforcing such measures is the subject of constant debate. Despite their global reach, organizations such as ILO are very restricted in enforcing their mandate.

This pandemic has shown that the model of national welfare state, that is based on social security contributions and continuous economic growth, is not sustainable; nor is the distribution model for welfare viable any longer as it has been fundamentally challenged by the many global problems. Thus, beyond national welfare, there is a clear need for global welfare regime in a global scale. Global welfare regime, besides ensuring each and every individual welfare regime's economic, cultural and institutional properties, prioritizes global welfare distribution rather than national. It is a welfare regime that aims to, globally and locally, reduce inequality in income distribution, promote an egalitarian atmosphere in which different members can voice their concerns, and is shaped by extensive regulations with the aim to distribute global welfare in a global scale.

The main issue here, which perhaps, to some people, seems to make this impossible to implement, is how a global regime such as this can be established in an international environment with dominant populist and nationalistic discourse, and where every nation prioritizes its own interests. Though this certainly may seem as a challenge, without deviating from the target and with a strong and confident approach a novel economic approach and political system can be built. Otherwise, it is impossible to solve the above mentioned global post-pandemic risks with the means of a national welfare state and without global social policies.

While COVID-19 disturbs the dynamics of global production, the multi-national companies that are globally entwined and dominate the global supply chain, can be reconsidered with new focus placed on local production. However, the inherent desire for corporations to grow and increase their profit margins, regulations of the World Trade Organization (WTO) regarding free trade, and the added cost of local production, all reveal that the protective and exclusive approaches to production is not sustainable in the long run. The reality is that global crises such as the current pandemic, migration, inequality, environmental disasters all need solutions at a global scale. Global welfare regime's regulations regarding equal distribution will benefit both developing countries and developed countries that face low economic growth, immigration, and aging population. Global welfare distribution and the formation of necessary institutions that will sustain this distribution is inevitable in an environment where financial markets are entwined with blockchain technology, and in the age of social media that sustain constant communication with every person and nation; and in an atmosphere where humanity is threatened with environmental disasters and pandemic.

Conclusion

While COVID-19 pandemic questioned the long debate on welfare state and its political promises in a period with increasing economic fluctuations, rapid social changes, global environmental problems, and quickly aging population; it also emphasized the importance of social policies, especially healthcare and income support. Even though crises of welfare states are usually affected by global fluctuations, up until COVID-19 these effects were mostly national. Many countries searched for national solutions to the global pandemic that brought with it health and economic problems. Liberal welfare states such as the US and the UK are accused of not being able to protect their citizens against the virus, negligence of the disadvantaged groups such as elderly, poor, and minorities resulting in loss of life. Countries such as Japan and South Korea, with active healthcare services, relentless treatment programs, and adherence to social distancing, achieved low death rates despite their dense population. Even though welfare states have developed path dependent solutions in their battle against the pandemic, it is necessary to develop global solutions for global problems. Environmental problems, economic fluctuations, immigration waves, and fast progressive social change all highlight the need for a better, fair and more sustainable welfare regime with global as well as national implications.

There are lessons to be learned from the pandemic for the Turkish welfare state. In the near future, Turkey is very likely to face the economic, social, and demographic challenges the European nations are facing now. Turkish policy makers can benefit from analyzing the mistakes these welfare states made in order to construct better approaches and develop solutions. Some lessons to be taken from this is to develop sustainable social policies that are transparent, free from populism and clientalism, and to build on its strength, and improve weaknesses to ensure a fair social welfare distribution.

References

Aysan, M. F. (2018). Between Risks and Opportunities: Social Policies in Contemporary Turkey. Turkish Economy: Between Middle Income Trap and High Income Status (pg. 101-120). Palgrave Macmillan, Cham.

Aysan, M. F. (2012a). Pension Regimes, Gender and Generational Inequalities: The Persistence of Institutional Differences in Aging Postindustrial Democracies. Ageing Populations in Post-Industrial Democracies, (pg. 106-126). London: Routledge.

Aysan, M. F. (2012b). Küreselleşme, Kriz ve Refah Devleti. Küreyel Dönüşümler: Küreselleşme, Zihniyet, Siyaset, (pg. 107-128). İstanbul: Küre Yayınları.

Aysan, Ü. (2019). Avrupa Refah Rejimleri ve Türkiye'de Öznel İyi Oluş. Sosyoloji Dergisi, 39(1), 191-214.

Beland, D. (2010). What is Social Policy: Understanding the Welfare State. Polity Press.

Briggs, A. (1961). The welfare state in historical perspective. European Journal of Sociology, 2(2), 221-258.

Bureau of Labor Statistics (BLS). (2020). The Employment Situation April 2020. News Release USDL-20-0815. https://bls.gov/news.release/pdf/empsit.pdf (20.05.2020).

Büchs, M., & Koch, M. (2017). Postgrowth and Wellbeing: Challenges to Sustainable Welfare. Springer.

Castles, F. G., & Mitchell, D. (1993). Worlds of Welfare and Families of Nations. Families of Nations: Patterns of Public Policy in Western Democracies, (pg. 93-128). Aldershot: Dartmouth Publishing Company.

Deacon, B. (2007). Global Social Policy and Governance. Sage.

Ehrenreich, B. (2001). Nickel and Dimed: On (Not) Getting By in America. New York: Henry Holt and Company.

Esping-Andersen, G. (1999). Social Foundations of Postindustrial Economies. New York: Oxford University Press.

Esping-Andersen, G. (1990). The Three Worlds of Welfare Capitalism. Princeton, N.J.: Princeton University Press.

Fenger, M. (2007). Welfare regimes in Central and Eastern Europe: Incorporating post-communist countries in a welfare regime typology. Contemporary Issues and Ideas In Social Sciences, 3(2), 1-30.

Fitzpatrick, T., & Caldwell, C. (2001). Towards a theory of ecosocial welfare: Radical reformism and local exchanges and trading systems (LETS). Environmental Politics, 10(2), 43-67.

Friedman, M. (1962). Capitalism and Freedom. Chicago: University of Chicago Press.

Gilbert, N., & Terrell: (2013). Dimensions of Social Welfare Policy (Ed. 8). Boston: Pearson.

Gough, I. (2015). Climate change and sustainable welfare: The centrality of human needs. Cambridge Journal of Economics, 39(5), 1191-1214.

Gough, I. (2001). Globalization and regional welfare regimes: The East Asian case. Global Social Policy, 1(2), 166-180.

Häusermann, S. (2010). The Politics of Welfare State Reform in Continental Europe: Modernization in Hard Times. Cambridge University Press.

Hayek, F. A. (1960). The Constitution of Liberty. London: Routledge and Kegan Paul.

Health System Response Monitor (HSRM). 2020. Cross-country analysis of health system responses and key policy les sons. https://www.covid19healthsystem.org/mainpage.aspx (15.05.2020).

Hemerijck, A. C., Vandenbroucke, F., Andersen, T. M., Pochet, P., Degryse, C., Basso, G., ... & Taylor-Gooby: (2012). The welfare state after the great recession. Intereconomics, 47(4), 200-229.

Hirvilammi, T., & Helne, T. (2014). Changing paradigms: A sketch for sustainable wellbeing and ecosocial policy. Sustainability, 6(4), 2160-2175.

Korpi, W., & Palme, J. (1998). The paradox of redistribution and strategies of equality: Welfare state institutions, inequality, and poverty in the Western countries. American Sociological Review, 63(5), 661-87.

Marshall, T. H. (1964). Class, Citizenship, and Social Development. New York: Doubleday and Company.

Mullard, M., & Spicker: (1998). Social Policy in a Changing Society. London: Routledge.

Myles, J. & Pierson: (2001). The comparative political economy of pension reform. The New Politics of the Welfare State (pg. 305-333). Oxford: Oxford University Press.

OECD. (2020a). OECD İstatistik. https://stats.oecd.org/ (15.04.2020).

OECD. (2020b). OECD Tackling Coronavirus (COVID-19). http://www.oecd.org/coronavirus/en/ (25.05.2020)

OECD. (1981). Welfare State in Crisis. Paris: OECD.

Offe, C. (1984). Contradictions of the Welfare State. London: Hutchinson Education.

Özdemir, S. (2004). Sosyal refahın sağlanmasında yeni bir anlayış: "Refah karması" ve sosyal refah sağlayıcı kurumlar. Sosyal Siyaset Konferansları Dergisi, 48, 97-127.

Sennett, R. (1998). The Corrosion of Character: The Personal Consequences of Work in the New Capitalism. WW Norton & Company.

Pierson, C. (2007). Beyond the Welfare State? The New Political Economy of Welfare. The Pennsylvania State University Press.

Rifkin, J. (1995). The End of Work: The Decline of the Global Labor Force and the Dawn of the Post-market Era. GP Putnam's Sons, New York.

Rosanvallon: (2004). Refah Devletinin Krizi. Ankara: Dost Yayınevi.

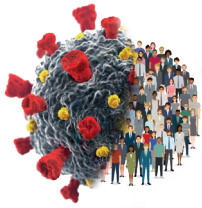
Taşçı, F. (2010). Yaşlılara yönelik sosyal politikalar: İsveç, Almanya, İngiltere ve İtalya örnekleri. Çalışma ve Toplum, 1, 175-202.

Titmuss, R. M. (1974). Social Policy: An Introduction. London: George Allen and Unwin LTD.

UNDP. (1993). Human Development Report 1993. New York: Oxford University Press.

United Nations, Department of Economic and Social Affairs, Population Division. (2019). World Population Prospects 2019, Online Edition. Rev. 1.

Yeates, N. (1999). Social politics and policy in an era of globalization: Critical reflections. Social Policy & Administration, 33(4), 372-393.



Human Relations in the Post-pandemic Period
-New Truths in the New Normal-

Nevzat Tarhan

Prof. Nevzat Tarhan

Prof. Nevzat Tarhan graduated from İstanbul University Cerrahpaşa Medical Faculty in 1975. After the GATA internship as well as Cyprus and Bursa continental service, he became a Psychiatrist in GATA in 1982. Dr. Tarhan is a scientist who has carried the results to his personal and social life. He transferred his knowledge of psychiatric expertise, which he has pursued over the years with a great effort and researches, to over 137 research articles published in national and international refereed journals, over 52 of which were in SCI class journals. Currently, Dr. Tarhan is the Founder and President of the Üsküdar University and carries out the NPİSTANBUL Brain Hospital Chairman of the Board of Directors, which is Turkey's first neuropsychiatry hospital.

Human Relations in the Post-pandemic Period -New Truths in the New Normal-[1]

Nevzat Tarhan
Üsküdar University
nevzat.tarhan@uskudar.edu.tr

Abstract
Pandemics are also psychological phenomena. When we search the literature on pandemic psychology, it is worth noting that the successive reflections are always related to the psychological dimension. Unlike conventional natural disasters, COVID-19 infection pandemic is a trauma that affects people regardless of location and time. It affected people's lives without knowing when and where to come. Despair, inadequacy, pessimism, burnout, anxiety for the future and hopelessness aroused feelings. Uncertainty increased anxiety. The danger dimension of crises evokes a sense of burnout that we have allostatic burden. On the other hand, if the size of the opportunity can be focused, it turns into trauma that develops trauma. Mental transformation, social transformation, economic transformation and political transformation are chained. Modern man was in a cycle of social mobility, economic mobility and body comfort. With the virus pandemic, his comfort was impaired, his freedom was restricted, he had to change the life focused on speed and pleasure. The first thing that changed was the close relationships and experiences. In this study, we will consider human as a bio-psycho-socio-spiritual entity and discuss analysis and ways out.

Keywords
Coronavirus, Pandemic, COVID-19, modernism, mental health, human values, mirror neurons, social brain.

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Human is A Relational Entity

Emile Durkheim carried the positivism to sociology 150 years ago and replaced society with God, and the thesis "let's look at the society as we look at God" revolutionized sociology. "The social event is not an individual dependent process that starts and ends with the person. The social event is transcendent; the individual joins it. Participating in the social event is an inevitable necessity for every person. Because social events; religion, economy, law, morality, politics, science and art are the events they determine the general compulsory of a person and the relationships between people. It identifies the specific individuality and sociality of the human. One gets the general truths already from the society, without discussing and researching. These facts; are the basic basis of the individual's judgments about himself, others, interpersonal relations, nature, universe facts." opinion belongs to him (Wikipedia, 2020). However, neuroscience made a revolution that affected all sciences in the 1990s. Human behavior and psychological dynamics were very similar to each other social behavior and dynamics. The concept of social schizophrenia, social empathy, social aphasia, and social intelligence has been accepted enough to enter the daily language.

According to social neuroscience, the human brain produced mind theory and theory's theory. Autistic children did not have empathy, so they could not learn sociality and to lie. The very first feature that distinguishes man from other creatures, is that it owns a social brain. Thanks to the social brain, it could establish social ties. The person who can manage social ties, was able to form an organized dynamic society even though it was weaker and powerless than other livings. If you gather a thousand monkeys in a field, it does not form society, but when you gather a thousand people together, it could create a relationship network. The total of human relations made up the society. Every common effect that changed human relations had a social counterpart,

economic counterpart, and political counterpart. However, in the last 20 years, two behavioral economists have received the Nobel Prize. The topics were areas such as how people make decisions and psychological factors in purchasing behavior. Durkheim was wrong, ignoring human relationships.

When we evaluate the COVID-19 Pandemic with this view, mental transformations will have consequences towards social transformations and mobility, economic transformation and political transformation. For this reason, it is important to read this "Global Epidemic" over human relations.

Psychology of Human Relations

In the in recent years in psychology studies, it has been understood that human relations are a scientific category. The psychological dynamics of man's own inner world, pleasures, principles, and lifestyle were included in this category. In the psychology of relations, verbal and non-verbal relations were included in human relations. Verbal communication (Verbal) is about the transfer of information and makes up 20% of the communication. Nonverbal communication (Nonverbal) accounts for almost 80% of interpersonal communication. This is a transfer of emotion. Behavioral language such as sub-threshold highlights, tone of voice, facial expressions and gestures, emotional and social clues are read. The emotions that affect emotion transfer, were the most range is ranging from love to fear. Herewith, it seems like, the global COVID-19 epidemic, builds emotional changes and due to its long term, will cause new normal.

The pandemic harms most to the need to be tied with

Human beings tend to be a part of social structure by their biological nature. Our need to be tied with, is a biological feeling and is most common in nursing mothers. The name of the binding hormone is the "oxytocin" hormone. The person who cannot provide the need for been tied with, does not feel safe, the process, which leads to false ties or even use of drugs, begins like that.

It is necessary to endure a force and take refuge in a crisis situation. Loneliness is eliminated like this. Being in selected loneliness is a special skill. It develops when the person is able to establish a relationship with himself and with a highly power. This was our most affected psychological need during the COVID-19 Pandemic process.

1-People behave differently in the group because they are on their own.

2-People set rules within groups.

3-People tend to follow social rules.

4- Some people have different characteristics about following the rules than others.

5-There are rewards for compliance with the rules, penalties for non-compliance behavior.

6-If there's an established order, there is resistance to innovation.

7-In the case of crisis, at begin the behavior is hazard-oriented, change-focused harmony develops within time, adapts to develop.

Without the frontal brain, there would be no civilization

Social brain studies have revolutionized all areas, and this is the case in terms of understanding and understanding their relationship. There is a limbic system in the middle areas of the brain where emotions are performed and the thalamus region where information and filtration are performed. The analysis of information is made like who, what is it, what is it not. Then the information is transferred to the vision center and the connection is established. By these patients, the thalamus section does not work, but there is an early warning system in the brain. They form the side paths or ways of emotion (by-passing pathways) in the brain. Because those paths work, they can read, understand and react. But it can't give a sense to, because it can't read the information. What we call subconscious is actually implicit memory. This explains the neurobiology of the relationship. The final decision is made in the frontal lobe; the forebrain is the captain's lodge of the brain. People who have been damaged in this area experience serious personality changes.

Personality and Psychological Integrity

The relationship has 3 dimensions. These are emotion transfer, information transfer and behavioral transfer. Behavioral transfer covers physical behaviors such as touching, body contact, eye contact. These 3 transfers, which differ according to persons, are communication styles and form the personality of people. Problem solving style and communication style generate one's structural differences. Personality has several layers and they are like pieces of a puzzle. Psychological integrity is at the forefront of personality integrity and these two are in an integrated form. But there is integrity as ego in personality integrity. In psychological integrity, human relations are also involved into the issue. His relationship with the atmosphere and environment is in the emotional background. For this reason, it is correct to treat relationship disorders as diseases. We can list relationships in the form of human's ego, other people, society, living things, the universe, and finally, relationships with God. The communication style or stress-coping style differs from the problem-solving style. The communication style has a trouble-solving strategy or stress management. The stress management covers the emotion's management as well. In problem solving style, the logical process is effective, therefore, there is a thought management. The rational cause and effect relationship must be established.

Relationship definition

When the relationship is taken impartially, it is also about the relationship of one's own world, as well as it is an issue about a relationship with other people, society, living things, the universe and the creator. But here the relationship

with people is important. When we look from the perspective of empathy, the forms of the relationship in between human communication are more different from the relationship with the person himself. The relationship of the person with himself can be described as follows: One's emotions, impulses, desires and tendencies are emulated to a wild horse. The person needs to establish a relationship with himself, like the rider's relationship with the horse. In the race, the relationship of horse and rider with other racehorses, is like their relationship with the other people. In some personality disorders, the person establishes such an identification with his nearby people, that he begins to see them as an extension of his body. For example, a man, in the traditional male kind (rowdy), sees his wife as his own extension. He perceives her as his own arm, leg and sacrifices himself for her, but asks him to obey him completely. Some women like it to be owned like by bully men, as well. But when she does not satisfy a man's ego, so the man breaks down her. This is a form of unhealthy relationship.

Conflicted communication

In the way of relationship-building, the roles of the relationship-built object are important also. For example, there's a relationship to been built with the role of a mother, a father, a businessman. Inter-human relationships also vary by roles. There are relationships they are business, school, home, friend. People begin to build with the other a relation, depending on the role they are covering themselves in it. When roles are get mixed with, conflicts occur. Let's consider a working woman; She has to establish 3 different relationships as a housewife, a working woman and a motherhood role. If she does not act as a mother when she comes home, but as a working woman, she cannot empathize with the child. Or, if she performs her motherhood role at work, she cannot do her job. In this case, roles get mixed, conflict begins, the way of communication deteriorates, the roles of the objects will change. If a person knows how to act in which role; if he acts in according to the role at home, at work and on the street, he communicates healthily.

If two parties live problems in a conflicted communication, it is in question, that they fail to succeed to build-up information, emotions and relationships with each other. There is an intercrossing in this communication. For example, if a mother plays the role of a teacher towards her child, becomes imperious, authoritarian, she will distance her child from herself, thus she is breaking the communication. It makes it easier for us to determine the roles in communication, to know the personality roles correctly, to analyze the communication.

Communication models

In conflict-free communication, there is build a communication with the other person and there is a mutual interchange. There is a knowledge transfer leg in this communication, but no emotion transfer leg. Conflict-free communication is not a healthy communication. If there is silence in this communication, if it does not change the physiology of the other party - you speak, you take it, you

give it - there is nothing in between, but there is only a distant relationship. They are like passengers in the same bus, they go to a common destination, but there is no conflict. In order to understand the conflict-free communication better first, it is necessary to talk about the neurobiology of communication. Conflict-free communication is divided into two:

Unconflicted Harmonyless Communication
There are no clashes between the two passengers who went to the same place in the same bus, but there is no harmony as well. For example, in the bus, jokes are made, everyone laughs, who is not laughing, could not bond a harmony with the atmosphere, but there is no conflict also. This indicates that there is unconflicted harmonyless communication. Since there is no harmony between them, synchronous movement does not occur, and empathetic resonance does not occur.

Unconflicted Harmoniously Communication
Two passengers traveling to the same destination on the same bus talk whenever they need, and exchange information. There is information transfer in this communication, but no transfer of emotion, no empathy either.

Empathetic Communication
Empathetic communication is the deepest and most effective form of communication. It is the communication style of two people who love each other and immediately understand what each other feels. One feels he is becoming sleepy, the other puts immediately a pillow under other's head.

Communication is the method applied by two relationship objects. Communication is like the roads of a city, and the relationship represents the mobility of an entire city. As well as there are people, objects in the city, there is love in relationships either, objects of emotion, objects that satisfy the need. So there are changes in these three communications between two people throughout the day. When it comes to establishing an empathic relationship, we also understand the neurobiology of the relationship. When it comes to establishing a relationship, it is generally perceived as one computer's relationship with the other computer and is considered as a book exchange between two people. However, human relations are not like that.

Today, efforts are being made to develop an interface and transfer the information on the computer to the information in the brain. The information in the human brain is not just plain information, it also has an emotional dimension. According to some brain studies, an emotional blind vision (affective blind vision) disease occurs in a patient who has had a small vascular occlusion in the brain. When these people look at a picture, their eye sees, but cannot perceive what they see. Because there is a vascular occlusion in the brain, on the path between the eye and vision center. For example, he looks at his wife's face, but does not recognize her. In the very advanced stage of the disease, the patient looks in the mirror and does not recognize himself.

Although such patients look at a picture and do not know anyone, they mimic the facial expressions as same as in the picture. If the eyebrows in the picture are frowned, the patient will frown as well. This reveals that he does not see logically, he sees emotionally. He does not recognize the person he sees in the picture, but recognizes the emotions in his facial expression. For example, they show a picture of the spouse, he does not know that he has got a spouse, but if the picture is smiling, the patient is laughing also (Tarhan, 2009).

What had Modern Philosophy of Life Predicted?

Two results of Modernism; Egoism and Comfortism

Violence is increasing in societies where living standards are rising, and wealth is increasing. However, this was not the predictions of the age of enlightenment; Violence should decrease as modernization rises. According to the 2003 numbers announced in the USA, one out of every 14 Americans has been victims of murder, violence, rape, theft, one of 6 Americans is a victim of a snatcher and an auto theft. The money spent on fighting crime in the USA in 2003 is 120 billion dollars.

In his book Emotional Intelligence, Daniel Goleman states that 57% of children killed under the age of 12, were murdered by their parents. News about school murders is often on the agenda. Is the feeling of pity decreasing in humans? Is intolerance increasing? Is the tendency of inability to understand what others are feeling and not being able to control anger today? To cut corner, the desire to own without effort, has become globally a common. There is also digital violence. Cities are being built, guns are talking, robberies are made. Godfathers are at work, chainsaws, laser guns, shotguns have everything. We cannot prevent our children from computer games that teach bank robbery and encourage violence. It is asked like; to where is the humanity going, what should we do to make the world more livable? On the other hand, street children are a problem in the form of crime machines. Poverty leads to be enemy of wealth and then to serious crimes such as extortion. Increasing fragmented families and weakening of moral values seem to be the reasons discussed.

Modernism encouraged rapid life and hedonism

The selfish up of human of modern life while trying to individualize, is one of the reasons for violence. Freud described the definition of happiness as 'a living being to satisfy human pleasures'. It has produced historical consequences that change not only psychology, but popular culture from start to finish. Freud's doctrine, doing what you always like, has had consequences such as indulging in entertainment and luxury. Young people who see the fun as their right to be prevented, even the closest relatives can be violent without pity.

While modernism has had planted hedonism, seeds of selfishness, which have posed global consequences such as loneliness and unhappiness, the

COVID-19 outbreak has arrived. In three important areas, freedom, body comfort and future anxiety, revealed the necessity of radical interrogations. If there is no change in a person's philosophy of life, the social distance that will last several years can cause to, the social peace is deteriorated by alienating, solitude, increasing fear, raising anxiety, weakening trust, and ultimately increased feelings of hostility. Freedom, inability to maintain the balance of responsibility, seems to be the most important threat posed by the global epidemic. In the meantime, it should be notified that the misunderstood social distance rule, pushes people and countries towards their interior. It would be better to interpret this definition as physical distance, not a social distance. Special efforts are required to maintain social distance, without weakening social ties.

The 'Lost ring' in human relationships: The emotions

Brains shop independently of us

Recent advances in neuroscience have identified the presence of some cells in the human brain that are thought to be scattered. These cells, called "mirror neurons," were able to replicate the intuitive state. These mirror nerve cells are cells they detect and copy the emotional flow and intentions of the people we are with. Emotional exchange between our brains and other people's brains have been demonstrated by experiments. Intuitive senses, called the sixth emotion were detected, but they could not be proved. What were the neural mechanisms, that were a concrete step towards finding the missing ring?

Mirror nerve cells serve emotion coordination and synchronization between two people. One person's emotional intimacy affected the other person's feelings. In addition, while the nerve cells copy the emotional flow, the intention of the person with whom it is, some parts of the second person's brain are activated; especially the tendency to catch emotions they have been strongly expressed, is more noticeable. Emotional feelings of harmony allow people, to be quickly when faced, with their attitude, tone of voice, mimics and gestures. One's hostility increases the hostility of the other party; it can increase the tension. Our love could attract the love of the other person.

Social brain studies in recent years have expanded the scale of neuroscience radically and scientifically. Instead of a single body or brain, brains that exchange with each other have become scientific categories. Two psychologists, Dr. Diamond and Dr. Aspinwall of the University of Utah, USA, talk about "Reciprocal regulatory psych nerve." It's not a spiritual fact that affects emotional intimacy other person's psychology, it's a demonstrable fact. A center of insight and social neuroscience was established at the University of Chicago. John Cacioppo, head of this center, says that, "the emotional state of our relationships, has a significant impact on the route of our cardiovascular and hormonal systems."

The importance of the emotion's bond

The activity of the nerve cells in the human brain, operating such as the

wireless internet, can be measured by "fMRI" studies. When eating, watching food and dreaming of food, separate areas in the human brain are triggered. When the human in the front of you raises his arm, the area in your brain about lifting the arm takes action. Imagining or seeing someone who loves you during a fearful waiting, is soothing the region with anxiety in the brain. While all this information reveal the benefits or harms of emotional relationships to the health, the medical circles get goosebumps.

To be loved, loving, to been rejected, heartbreak, bears results between psychological pleasure and psychological pain. These are emotions with biochemical counterparts in the brain's metabolism. One of the badnesses applied to people emerges; "Being deprived of love bond". Modern life has increased man's monetary capital but reduced its emotional capital. The weakened emotional ties were to face life and illness alone and to suffer a second pain. The emotional negligence of a mother, father, spouse, child and a friend's beloved ones, was not only selfishness, but was suffer them also. The transformation of the emotional well-being into physical well-being, was biological information. It was understood, that heavyly ill patients staying under an undergoing "last resort" treatment, had a sense of hope, anticipation for recovery, and a loveful environment, was a scientific category. Now it is time to identify changes that will appear in the brain with the prayer. Do mirror neurons acting in the brains of people who have been prayed and healed in their absence as well? Thus, immune systems overcome the disease. Do mirror neurons act in the brains of people with mental shelters, such as belief in God, and contributes that to their recovery? Real scientists will answer these questions. It is been said that Lieberman and N. Eisenberg from UCLA, say in their books, that the pain centers of the brain have gained extreme sensitivity in loveless cases of social rejection (10th October 2007, New York Times).

Genetic aspect of emotion

Love is a genetic trend. As the area responsible for emotions in our brain gets richer, this feeling develops and turns into love. This desire that directs women to men and men to women; if there is not the love, when the two genders have to endure to each other, they cannot do it. Ideal in love is, a loyalty-based relationship surrounded by love, respect, and trust. This relationship will have stormy and difficult days as well as good. But the power of love is enough to overcome these difficulties.

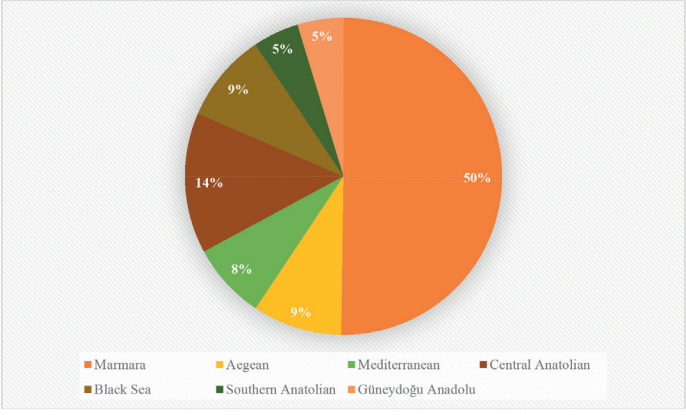
The love-related part of the brain develops in the first four years of childhood. For this reason, the first four-year relationship between the mother and the child is extremely important. The feeling that the child is loved, even with a glance or touch, helps the development of his feelings in this area. The child who is not been loved in the early days of its life, will not feel safe and will not secrete brain growth hormone. The physical development of the child, whose growth slows down, will also weaken. For example, in the West there are children who have been put in baby boxes and on our side, they are left in the front of the mosques. Although these children are cared for at home

with very good physical facilities, they often have difficulty in establishing one-on-one, determined and consistent communication with people, because they often change caregivers. The child, who does not get enough love, closes itself against the outside world, as there is a lack of basic sense of trust. Introversion begins with a period of protest, primarily caused by maternal deprivation. At this stage, the child cries everything that approaches it. Later, it experiences a period of inward closure, detaches from the world and enters an autistic life. The symptoms of this are the inability to learn to read and write, to behave with disconnection from life. Some of the children with maternal deprivation cannot secrete brain growth hormone. Because love is the neurophysiological need of the brain. There is a disease called "hospitalization - Nest Disease" in the child homes. The child with this syndrome gets very often ill and sudden deaths occur. The way to prevent nest disease is, to satisfy the child's need for love as an energy (Tarhan, 2008).

Emotions field study about the Coronaphobia and the Epidemic

Uskudar University Epidemiological Research Working group conducted an online survey, covering all around Turkey with a large scale and high representation capability, covering 6318 people in April 2020 and the results were announced at a press conference. The purpose is the determination of the level of fears that will affect life in the epidemic of society in our country affected by the global epidemic, the current and future concerns, perceptions of process management, psychological maturation levels.

Graph 1. Geographical distribution of participation in the COVID-19 emotion field study



The method is conducted between the 17th to 25th April 2020, with forms filled over the internet. Sociodemographic information form, 7-point coronavirus fear test, 28-point epidemic-related concerns test, 3-point process management perception test, 6-item maturation test.

The results of the study, which have not yet been published, are as follows. As seen in the tables, there is a process in society, that leads to psychological maturation around 50%, together with widespread fear and anxiety.

Figure 1. Emotion Studies areas

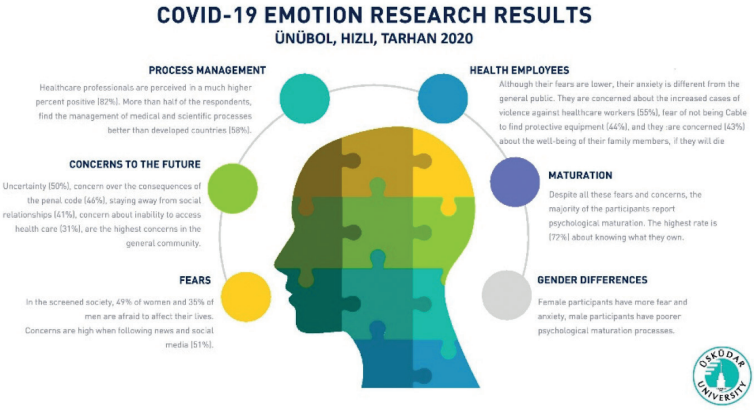


Figure 2. Distribution of fear at clinical level

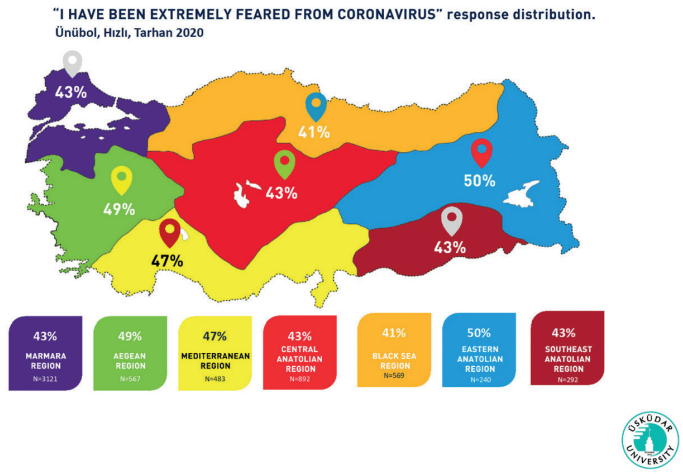
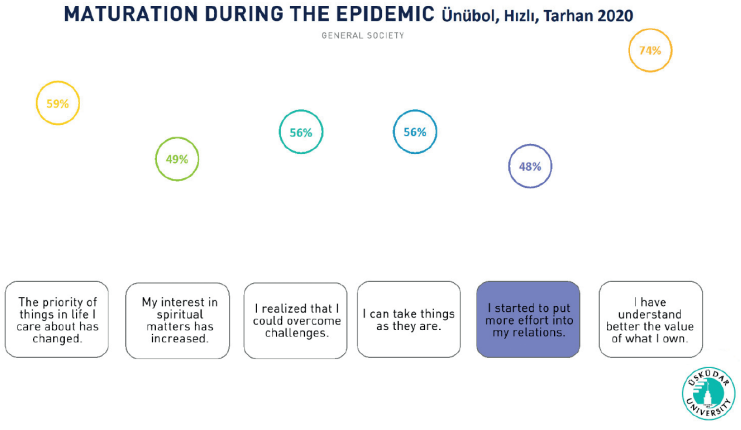


Figure 3. Psychological maturation areas and rates



The question came out of biology, we cannot see ahead

A news in the press reported that a person who had a positive COVID-19 test committed suicide. Another news is; that someone sneezed in the middle of the people, and has been stabbed by a near one whilst saying; "Do you want to kill me?" If we say that people who commit suicide or become aggressive, they express the emotions of millions, we will not be exaggerated. Social isolation restrictions continue, but in parallel, psychological isolation is increasing also, accompanied by feelings of inadequacy, besierance, helplessness, urgency and uncertainty.

The feared started to be happened, we begin to think whether are we pushing the people into the gray zone of panic, depression and paranoia, while we experts try to protect them from infection. Gun sales in the United States have increased 10 times, suicide cases have increased by 35%, and access to religious sites in search engines has highly increased, people are panicked about expecting help from science.

We are really experiencing a major crisis in the human history and thus even after the first industrial revolution. It is as if everything, including the economy, has been flunked. Everything will be restructured, even in engineering, Bioengineering, Molecular Biology Genetics branches will rise as fields of business and profession.Economists say, '**The question came out of biology, we cannot see ahead**'. The share of the private in the number of intensive care beds in the health sector was 60%, the state had to increase the additional investment in the health sector, and it is necessary to encourage relevant specializations for physicians. Intensive care was not as a specialized branch in Turkey, its establishment should be brought at the earliest opportunity to the agenda.

Pandemics are psychological phenomena

We are facing a biological disaster. All these experiences are psychosocial trauma, evaluated within the scope of disaster medicine. The difference of this disaster from other natural disasters such as earthquakes, hurricanes or floods is; that its time and place are uncertain, and we do not know when and where we will encounter with. It caused great uncertainty. Uncertainty is an emotion that the human mind cannot sustain. Therefore, anxiety and fear pandemics are mentioned.

Human's psychobiological nature is programmed to perceive a melodrama more carefully than a comedy. If everyone will hear unusual noises, while they were calm, so everyone would quit the job and turn their attention to it. This is necessary for survival impulse and life-saving harmony in evolutionary psychology. We owe it to the secretion of stress hormones coming from our brain. According to the publication "Anxiety in Pandemic" published in Medscape on March 31, 2020, 70% of the communities feel fear, concern and anxiety at the clinical level. New disease definitions were also made as coronaphobia, Pseudocorona (false corona), corona paranoia.

Our normal has changed, we need to create new norms, with priority over human relations. As we read more about pandemic, we see that; pandemics are actually psychological phenomena. Why is that? Epidemics were not only related to some viruses that infect people. People's kind of their behavior has caused pandemics. Outbreak patients, can be only controlled if people agree to do certain things such as closing their cough, washing their hands, respecting social distance, and getting vaccinated if they have not been vaccinated. If people refuse to do these for various psychological reasons, the epidemic continues to spread.

As we explore human psychology in pandemics, we see that psychology plays a crucial role in how a society reacts to the epidemic. In previous pandemics, racism, panic buying, and "hypochondriacs" filled hospitals, and people who were uncomfortable with isolation and other forms of social withdrawal were in majority. It figures out, that psychology is extremely important in understanding how people deal with or react to the threat of pandemic infection. Indeed, we have seen it all in the current COVID-19 outbreak.

It is necessary to look at the clues of what is important to understand and overcome pandemic of human behavior. Virologists had predicted, that the next pandemic come out soon. Therefore, it was important to understand pandemic psychology, to control the spread of contamination to people and communities in general and to find ways to help cope with the emotional distress associated with pandemics (Huremovic, 2019).

Priorities should change during the crisis

First, society should be illuminated by the rules of crisis management. Uncertainty should be eliminated, openness and transparency should be continued, decision makers should not see criticism as a threat. Fortunately, Turkey's health sector has made a lot of investment, we welcome the crisis with a good infrastructure. I hope we will be one of the cheapest jumpers.

Second, when experts talk, especially those of medical origin, should not neglect to give people hope at realistic boundaries. Let's look back; humanity, Medical Science have beat great infectious diseases like; tuberculosis, typhus, plague, polio, leprosy etc... And he has the power to overcome it, with the permission of Allah, and there is a cure for everything, except of death, and there is no pessimism. Experts should speak with that confidence.

Violence in the family and divorces

Thirdly, there is a saying in the COVID-19 report, which reports China's experience, 'We beat the pandemic with social cooperation, not with social isolation.' This means "Let's open the social distance but narrow the psychological distance".

The long taking social distance, is contrary to our biological and psychological nature, so it is natural to have some consequences. Those with adaptability

(Allostatic Compatibility) can only get stronger out from the process. Literature information and information in the example of China, show that domestic violence and divorces will be an important agenda during and after the epidemic. As a result of not perceiving social distance as physical distance, it is inevitable for the distant life to weaken or change social ties, family ties and relationships, those who adapt and produce new strategies are exceptional (Eser, 2020).

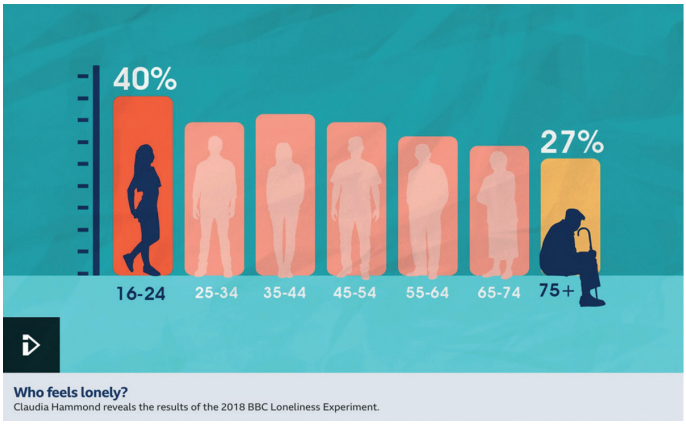
Not only psychology professionals, but everyone should spread the two concepts in their homes, workplaces, and social circles. These two values are "Compassion and Kindness". Everyone should be careful not to hurt each other, to take care of how they say as much as they say. Our freedom has been restricted, it's true, but our humanity has not been restricted! We were in the age of pleasure and speed, but we had to abandon some of our delights and amusements. However, we can activate our mental flexibility and develop new alternatives (Harris, 2019).

The deletion of the dinosaur from history, was due to its small head and big armor. Man's mind and intelligence made him establish the civilization. Perhaps these events will be "Developing Trauma", not a disaster for humanity. Let's activate our adaptability, not the strong ones in nature, but those who adapt, have survived and won. In summary, we must be a promising leader, regardless of circumstances, in our home, family, workplace and even against ourselves.

The Nightmare of Modernism is Loneliness and Digital Addiction

In a field study conducted by the University of Manchester and the BBC on 55,000 people in 2018, before the pandemic, the weakening of the social ties and family ties of the elderly due to digital dependence, was determined by numbers. The COVID-19 pandemic was discussed as a problem for young people to see marriage as a hindrance and to ignore religious, national and ideological affiliations. Crises often accelerate negative trends or open up opportunities for those who have made radical transformations. The West has produced great philosophers, and philosophers, social scientists and religious scientists who are motivated to seek the truth have a lot to do (BBC Media Centre, 2018).

Figure 4. BBC-Manchester University solitude study main result table



Source: *(BBC Media Centre, 2018)*

Is It Necessary to Question the Modern Human Type?

Modern human has suddenly succumbed to a virus whilst building skyscrapers on Earth, going into space, building autonomous robots, proudly wandering the Internet of Things, 3D printers, big data, virtual reality, simulations. He was afraid of losing what he had earned, stunned the fact that death was close, while his body was very concerned about his comfort, he saw that his health was under imminent threat.

Freedom-addicted modern man had to spend his days in a narrow space, but he also has the capacity to stand up and continue his way. As if everything was suddenly a lie in the eyes of modern people, does nature take revenge on us? We broke the order of nature, we played with the rules of the universe, is there a message from the invisible reality that speaks with the language of the event? This uncertainty is enough for us. But if there is life, there is hope.

Where will the pandemic stand, are new waves possible? While we are afraid of the atomic bomb, this semi-alive, self-reproducing microbe has dizzied our heads, we do not know where it gets its power, but we can say that it will leave a mark with the things it gains and losses, nothing will be like 2019. This fear is enough for us.

Either Radical Change or Collapse

As like very strong, successful, capable of all, as well as he should have created the litle mountains, and to intervene at that point to the quantum universe, the mankind, omnipotent with the technology's earnings, so full with feelings of being strong as an 'omnipotent', he was walking on Earth like all that. This invisible virus came, as if everything suddenly lost its meaning. As with Yunus' (Prophet Jonah) term, "a fly hit an eagle on the ground". It is as like as everything has become a lie.

You cannot hug kith and kin, you cannot even put your own hand on your face, on the subway, on the bus and on the stairs, you look at your arms like an enemy, even when you come home, your clothes become hostile, as if your dreams and plans about the future are turned upside down, everything has become suddenly as like as a lie.

You are afraid to kiss the hand of your mother and father, you cannot hug your children. If you are a health worker, you are afraid a thousand times more, you are staying in another house, you panic if they accidentally touch you at the workplace, you give the paper to your friend remotely, you fear from your friends, there will be no one coming to the funeral if you die.

Meetings, schools, fairs, restaurants, cafeterias, weddings, tourism, flights, are all canceled, planes are gathered like birds in the cold, they cannot fly. Unlike historical outbreaks, it does not distinguish race, language, religion, rich, poor, strong, weak, private soldier or general. There are new friends of us been formed, water, disinfectants, soap, social distance, so called loneliness, how long this will last is unknown.

Shutters are down, invoices are being processed, rental time and amount have not changed, taxes continue, we are on the same ship, social support remains very weak, we will pay an economic price, but we do not know in what extent. The hasty, impatient, speed and pleasure-oriented modern human could not acquire the ability to postpone satisfaction, lost endurance, did not ask if success was the only truth in life, and did not seek the correct philosophy of life.

Capitalist Morality will enter in process of questioning

If capitalist morality is fed by the hunger of the hungry ones, by the weakness of the weak, by the begging of the poor, then the end has come and must come. Modern man should ask himself, the world where the disadvantaged are not happy, and the rich cannot be happy, as if you cannot laugh if there are crying people at home, the ship is going into the unknown. The capital system will either share or blow out its mind. The recent outbreaks of plague in Rome hastened the collapse. Therefore, the global system based on capital expects waits to collapse rapidly if human beings fail to develop social empathy. It's either radical change or collapse. If modern human does not change his philosophy of life, he is a candidate for secondary crises; "either the new philosophy of life or depression", the decision is ours.

We forgot the truth of death, we worked into the world, as if we were never going to die, we never thought about what life meant, death was part of life and it was our choice whether or not to be afraid of it. Like the ostrich, we put our heads in the sand, so that the hunter does not catch us, but we cannot keep our heads in the sand. Then is it not necessary to think about, how much rations we will take for the after death? Can we say that everything has turned upside down, everything was illusion in reality, it is time to discover the factory

settings of our existence? If you can't find a solution, of course, you wander through the dark valleys of depression.

Is the nature taking revenge?
According to a mathematical modeling, if 'Bees' disappear in nature, life will end 50 years later, if will 'Human' disappear, the world will be much more beautiful after 50 years. Which entity lives in accordance with the genesis, so in accordance with the biological nature, may you give the answer.

We turned the order of nature upside down, we reduced the green, environmental pollution and global warming goes ahead, we played with the rules of the universe, greed, insatiability, capitalist morality, has become global morality. We have forgotten the poor, we met refugees with guns and coshes, as it is not enough we did exploit them, we did not make any sacrifice from our enjoyment, while the children died in wars, the corpses of them hit the beach. What do you think the upper minds they can not be peaceful behind the ivory towers? We are in the same ship, everything is going quickly to the unknown. Everything was a lie, let's put our head between our two hands.

"The Forgotten Ring" in Human Relations So, "Should values be rebuilt?"

Human Values in Global Policies
In a period when the importance of emotions in scientific relations is very prominent in human relations, recognition and management of emotions have gained priority in order to manage perceptions in global policies. The masses, as well as persons, need to face emotional traumas and manage the post-interpreting. This process is a situation, that requires effort and skill. The difference of policy makers in the world will now be determined by those who consider emotions. What does the anti-racist incidents in the USA teach? The importance of being able to stand against ethnic and economic discrimination lies in the answer to this question.

Values are the Set of Standards of Happiness
Values are common concepts accepted by society in general. In a sense, it is a set of standards of happiness. We can define standards, as universal lines. The important thing here is, that the values we adopt overlap with our biological interests. If a person has adopted a value contrary to himself, he experiences a conflict in himself. For this reason, to bring happiness to the values it accepts, one should try to adopt himself to the formula that can be summarized as 'biological interest + value = happiness'.

Virtues show themselves in inter-human relations but can also gain presence in any branch of music, painting, sculpturing, theatre and in arts like those. Values are concepts they need to be learned. Human earns the values they play an

active role in his happiness, later with the social learning method. He reaches happiness through the virtues he has learned in the social manner. Every value has dimensions as emotion, thought and behavior. Even if we correctly accept a concept, that expresses value to us, if we cannot feel its existence emotionally, we cannot put that value into practice. This shows that in order for a value to be acceptable, there must be load emotion on it. This feeling then becomes personality and initiates thought management. Because values are also a set of standards that govern the thinking. By creating the limits of our thoughts, we create a concept related to that thought in our minds. We can also call these concepts, which we accept as virtues, as "protective mental health values." The word virtue is also used in the expression of positive values.

Aim Values

We can divide the values into "means and aim values". Aim value, defines abstract goals in human life. The tool is the path that takes people to their destination in life. We can divide the aims and virtues into four groups, looking from different angles. The first group is in the axis of love and trust. So here is, loving people, being compassionate and enjoying doing good taking place. The second group of virtues determines social boundaries. Values of this class, include being honest and fair, equipped with respect and not giving place to lies in your life. In the third category, there are virtues, they determine the way of communication; Being tolerant, peaceful, sincere and understanding can be included in this group. In the fourth cluster, there are virtues in the internal discipline axis. Values such as sharing, humility, benevolence and reconciliation can be mentioned in this cluster. Even though all these virtues they have been cared about in different cultures and religions in different dimensions, there are two kinds of emotions, they form the basis of values in the human brain: To tend towards to the good and to be prone to the evil. The human being must achieve a balance between these two demands in order to continue his live correctly. Because the effect of protective mental health values on life depends on this balance.

If someone who talks about loving people, if he is putting this value on his personal interests, but not in the name of humanity, i.e. the intention of loving humanity, but in fact, blindly loving his own selfness, it is impossible to talk about the correct virtues in that person's personality. One of the most important issues in the realization of values is, that virtues, which are means, should be as accurate as the purposes. What constitutes human desires in a matter is the purpose, and the tool is, which determines the qualification of the demand. We determine our requests in the line with our goals; however, we proceed without ignoring by which means our desires will come into form. For example, while it may seem right to let live a person something to suffer for his own goodness, the choice of suffering as a means of the goodness, is actually not the correct method.

Means Values

Virtues, which are the tools that provide the human and universal values to be adopted, have a motivating and encouraging feature. These are divided into several groups, just like the values that have become goals. Values to be counted in the first group; can be summarized as being regular and orderly, appreciating and praising, exhibiting affirmative and relaxing features, trying to do his job well, acting in discipline, being generous and brave, improving himself. The virtues in this group, stimulate positive emotions as more. In the second cluster, there are virtues that are accepting and softening. In the second group, we can count the values, such as being flexible and soft in the face of events, being kind to people and making correct comments, they reduce negative emotions.

As Voltaire was in a literary class, who is a famous French philosopher and writer lived in the 18th century, there entered a donkey into the classroom. While the students tried to push out the donkey from the classroom by spanking it, the lecturer asks as the benefit of this opportunity to everyone, to write a composition about the donkey. Voltaire only writes a verse from the Bible on paper and gets the highest grade in the class. The verse that Voltaire wrote on the paper is as follows: "He was among those who were from himself, but those ones from his own did not accept him."

This critical sentence, which Voltaire wrote to prove his intelligence by finding the behavior of his friends wrong, is essentially an education of virtue. When discussing the necessity of virtuous behaviour in our age, the pollution, moral breakdown and corruption of values in societies, show that people ignore, both their own happiness and social peace. The most important factors that are not accounted for in individual and social happiness, are the values and cultural characteristics of society.

One day Plato sees his students gambling and gets angry with them. So his students said, " teacher, we were playing a little something, why are you angry?" as they asked, Plato replies, " I feel sorry for the time you spend, not the money you lose."

There is an innate tendency to selfishness in a person. The selfish person is enslaved to the consumption spree, one of today's biggest problems, as he rationalizes his personal interests and tries to make everything in his best interest. Societies they largely contain consumption, are made up of people who unite around their own interests. The thesis of Descartes; "People are the communities that are intent. Rationality is the only element, that determines their behavior; therefore, so there is no need for emotions. In the world, there is a pattern, that has not been determined before, and it has formed a spontaneous order", build the idea that sanctifies rationalism. In this opinion, the only determinant of behavior is the mind. And the method is skepticism, a cartesian approach. The philosophical movement that Descartes initiated in the 1600s, changed many values.

Universal and Cultural Values

Values are divided into two, in universal and cultural. Culture-specific values are formed by mixing universal values in various doses. For example, one culture emphasizes love, while another emphasizes honesty and the other diligence. However, in all of these cultures, the social unity of the society is formed with bricks built from values. There is a dose difference between the anonymous values of each society and the cultural identity of the society is shaped accordingly to that. There is also a person's scale difference. The combination of these two, forms the cultural features of man.

Facts Determining the Values

In the spiritual structure and personal development of man - with the influence of the environment he grew up - the virtues he gained from childhood have a great influence. In a way, it also forms the silhouette of our personality, as good qualities affect the patterns of human thought and behavior. When we think like this, we believe that it is necessary for the person to predict his future in order to know his past. In addition, values are the most important factors, they ensure our happiness and constitute our cultural infrastructure.

The abstract inferences we make against life and events, constitute the data of values. The values that we perceive through our five senses and that we perceive through reason and intuition, forms the behaviors, by determining the way people think. Here the human learns the values from his close and distant environment, starting from his family. The environment we live in, helps shape and reinforce the values we acquire.

From this point of view, we see the importance of years of accumulation in life success. In fact, we observe that the information hanging on the walls in the kindergarten is valid in older ages also.

10 rules of the kindergarten	**The Life School version**
Share your stuff with your friends.	*Share the more than you need.*
Play without harming others.	*Be careful about equity and fairness.*
Don't hit people.	*Do not harm anyone.*
Put it on its place what you have taken.	*Do not betray entrust.*
Do not take what does not belong to you.	*Be honest and true.*
Collect your own mess.	*Get organized.*
If you hurt someone, apologize.	*Know to apologize if necessary.*
Holding hands with your friend outside.	*Remember, that solidarity is the rule and the fight is exception.*
Be curious, examine everything.	*Curiosity is the teacher of science.*
Remember that even the fish in the aquarium will die.	*Remember that life is not just earthly life.*

While we are hanging the 10 items above in our child's room, should we not hang the second 10 items in our room? So here you can find a summary of the social values, they make people to human in these articles (Tarhan, 2010).

Values Reduce the Fear felt to the Unknown

Virtues help people whilst in the subjects they know, as well as in things that they don't have an opinion on. Because one learns what he does not know by comparing it to what he knows. He is also afraid, what he does not know. The values they enable us to experience what we absorb in the best way; help us also to overcome the fear in us, as we approach the issues, we are foreigners to. Each culture uses some values it accepts, to eliminate anxiety about the unknown. In summary, preventive mental health in human relationships, is provided by values.

Value sets

1. *Set of love and trust: So here is to love people, be compassionate and enjoy doing good.*
2. *Set of social boundaries: The values of this class, include being honest and fair, respectful, and not giving place to lies in your life.*
3. *Cluster that determines the communication format; being tolerant, peaceful, sincere and understanding can be included in this group.*
4. *Internal disciplinary set: values such as virtues, sharing, humility, philanthropy and being in favor of reconciliation can be mentioned in this cluster.*
5. *Procedural awareness and orderfulness set: can be summarized as appreciation and praise, showing conduit and relaxing features, trying to do their job well, acting in accordance with discipline, being generous and courageous, to improve himself. The virtues in this group, stimulate highly more positive emotions.*
6. *Accepting and softening set of virtues: In this group, we can count the values, they reduce negative emotions, such as being flexible and soft in the face of events, being kind to people and making correct comments.*

The reliving of the human virtues, formed by the values and values we summarize above, is now a scientific category. Neuroscience studies, The Science of Happiness and Positive Psychology, the glorification of these values among humans, will make the world more livable.

Last word: Love, Value, Share…

The first step is that we will not lose hope, by taking lessons from these writings, to be able to make new truths, to improve a new philosophy of life, to give new answers to old questions, to respect traditions, not to be traditionalist, to respect science, but not to be dogmatic, to capture constantly the change, to build our new norms, to burn a candle of favor to make the world more livable.

To our environment:

To build a new humanity with
a loveful look,
a sweet smile,
a few good words,
a warm greeting,
the slogan of "Love, Valuate, Share".

When will we do it if we don't do this nowadays? While keeping the social distance, we can zoom in on the spiritual distance, so we can love from a far as well. We can do quiet favors. It is not difficult at all, to think well about people and thinking about their good aspects.

Table 6. To Transform the Corona Crisis into Opportunity (But "We Won" Retoric or see the danger but focus on the opportunity)

may our freedom is restricted	*but*	*our resistance skills have increased*
our pleasures have been suppressed	*but*	*we have learned the skill of delaying satisfaction*
we couldn't use some of our rights	*but*	*we've noticed others*
there was social distance	*but*	*we have got family values with the attraction of being at home*
our body's comfort has been disturbed	*but*	*we thought to mean sensitive living*
the crisis has forced us	*but*	*we learned to manage economic risks*
we couldn't use our social abilities	*but*	*but we noticed disabled people*
we stopped running fast and slowed down	*but*	*we remembered human values*
we felt the closeness of death	*but*	*we are inclined to understand that death will not be changed*
vaccination is not found	*but*	*we have seen how important the science is*
we understood that we will defeat the pandemic not with social isolation	*but*	*with social cooperation*

Instead of changing the world, first we have to make good use of the environment, provided by the global epidemic, to be able to change ourselves, to be happy with the little things, to learn to be good people in a nutshell, to rebuild global morality, to have social cooperation, empathy, to think about someone else, to share, to compromise, to want the same for somebody else, what you want for yourself as well.

Life is passing fast, the important thing is not to pursue money, power, fame, interest, but to pursue meaning, to find inner peace and well-being by finding meanings that death cannot change, that is, to remember our humanity, to reconstruct our philosophy of life. The sign is enough for the enlightened.

References

Chinese Clinical Guidance for COVID-19, (2020) National Health Commission of China, Published by China

Eser, H. Y. (2020). *COVID-19 Pandemisinde İnsan ve Toplum Psikolojisi*. Koç Üniversitesi. İstanbul.

Görgün, T. (2020). COVID-19 Soruşturma Dosyası, Coronavirus ve Post Truth'un Sonu. İstanbul: İLEM Yayınları.

Harris, R. (2020). Face COVID "COVID'le Yüzleşme" *Corona Krizine Nasıl Etkili Yanıt Verilir?*

Huremović, D. (2019). Psychiatry of Pandemics, Springer, USA

Ünübol, H., Hızlı, G., Tarhan, N. (2020). *Koronafobi ve Salgınla İlgili Duygular Epidemiyolojik Bir Çalışma*. Üsküdar Üniversitesi

Tarhan, N. (2008). Sevgi Odaklı Yaşam Ne Kazandırıyor? What Does Love-Focused Life Bring In? *Köprü Dergisi,* 101. Sayı, İstanbul

Tarhan, N. (2009). *Toplum Psikolojisi, Tempatiden Empatiden Sosyal Şizofreniye*. İstanbul: Timaş Yayınları.

Tarhan. N. (2010). *Değerler Psikolojisi: Güzel İnsan Modeli*. İstanbul: Timaş Yayınları.

Web Sources

BBC Centre. (2020). Retrieved from: 16-24 year olds are the loneliest age group according to new BBC Radio 4 survey. Retrieved from: https://www.bbc.co.uk/mediacentre/latestnews/2018/loneliest-age-group-radio-4 (20.05.2020).

Block, A. M. (2020). Pandemic Life: Some Changes May Be for the Better. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/929649?nlid=135397_425&src=WNL_mdplsfeat_200505_mscpedit_psyc&uac=183334HG&spon=12&impID=2371376&faf=1 (15.05.2020)

Brauser, D. (2020). COVID-19: Mitigating Loneliness, Anxiety in Seniors. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/927519 (25.05.2020)

Brooks, M. (2020). COVID-19: Mental Illness the 'Inevitable' Next Pandemic?. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/928756 (20.05.2020)

Brooks, M. (2020). COVID-19: COVID-19: A 'Marathon, Not a Sprint' for Psychiatry. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/929720?nlid=135333_2052&src=WNL_mdplsnews_200501_mscpedit_psyc&uac=183334HG&spon=12&impID=2366717&faf=1 (20.05.2020)

Brooks, M. (2020). US 'Deaths of Despair' From COVID-19 Could Top 75,000, Experts Warn. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/930183?nlid=135558_2052&src=WNL_mdplsnews_200515_mscpedit_psyc&uac=183334HG&spon=12&impID=2382855&faf=1 (20.05.2020)

Enes, İ. (2020). Pandemi Süresinde İnsan İlişkileri ve Dijital Bağımlılık. Geleceğin Bilimi. Retrieved from: https://geleceginbilimi.com/covid-19-pandemi-suresinde-insan-iliskileri-ve-dijital-bagimlilik/ (ET. 15.05.2020)

Libertymavenstock. (2020). Covid-19 had us all fooled, but now we might have nally found its secret. Erişim (1): https://www.ncana.com/assets/Covid-19%20had%20us%20all%20fooled%20but%20now%20we%20might%20have%20finally%20found%20its%20secret_.pdf Erişim (2): http://web.archive.org/web/20200405061401mp_/https://medium.com/@agaiziunas/covid-19-had-us-all-fooled-but-now-we-might-have-finally-found-its-secret-91182386efcb (01.06.2020)

London,,R. T. (2020). Is COVID-19 Leading to a Mental Illness Pandemic?. Medscape. Retrieved from: https://www.medscape.com/viewarticle/927849?nlid=134989_425&src=WNL_mdplsfeat_200414_mscpedit_psyc&uac=183334HG&spon=12&impID=2346926&faf=1 (10.05.2020)

Öner, Ö. (2020). COVID-19 ve Çocuklar. *Türkiye Psikiyatri Derneği Ruhsal Travma ve Afet Çalışma Birimi*. Retrieved from: https://www.psikiyatri.org.tr/uploadFiles/2420201236-cocuklarCOVID.pdf (01.06.2020)

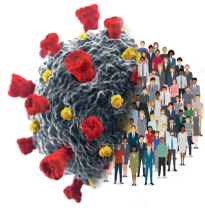
Stetka, B. S. (2020). A Surge in PTSD May Be the 'New Normal'. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/930150?nlid=135581_425&src=WNL_mdplsfeat_200519_mscpedit_psyc&uac=183334HG&spon=12&impID=2387729&faf=1 (ET. 25.05.2020)

Strakowski, S. M., Ghaemi, N., & Keller, A. (2020). New Projections on Suicide, Substance Abuse, and COVID-19. *Medscape*. Retrieved from: https://www.medscape.com/viewarticle/929632?nlid=135476_425&src=WNL_mdplsfeat_200512_mscpedit_psyc&uac=183334HG&spon=12&impID=2379415&faf=1 (20.05.2020)

Taylor, S. (2020). I've spent years studying the psychology of pandemics. This is what you need to know about Covid-19. Independent. Retrieved from: https://www.independent.co.uk/voices/coronavirus-covid-19-pandemic-psychology-research-predictions-a9406876.html (03.05.2020)

Vikipedi. (2020). Émile Durkheim. Retrieved from: https://tr.wikipedia.org/wiki/%C3%89mile_Durkheim (02.06.2020)

WHO. (2020). Looking after our mental health. #HealthyAtHome - Mental health. Retrieved from: https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/healthyathome/healthyathome---mental-health?gclid=EAIaIQobChMI38_E2aXN6QIVwrHtCh3aDwLYEAAYASAAEgKmb_D_BwE (02.06.2020)



A Prosthesis Addition to Our Psychology and New Normal

Erol Göka

Prof. Erol Göka

Prof. Erol Göka is the chief of the Department of Psychiatry at University of Health Sciences Ankara City Hospital. He, specially, interested in relationship of psychiatry with social sciences and philosophy and is also interested in psychotherapies. He is one of the leading psychiatrists in the field of group psychotherapies, psychodynamic and existential psychotherapies in Turkey. He has been member of the advisory board of many magazines in the field of medicine and humanities. He has published large numbers of scientific studies and articles. He has also published several books. Some of his published books are Psychiatry and Philosophy; The Psychology of Turks; Is There Any Mean of Life?; The Current Problems of Moderate Muslims.

A Prosthesis Addition to Our Psychology and New Normal[1]

Erol Göka
University of Health Sciences
erolgoka@hotmail.com

Abstract
The global COVID-19 outbreak has had drastic impacts on nearly all areas of life; and it persists still. Despite it is rarely emphasized, one of the most affected areas is the psychosocial area of life. The global outbreak, on the one hand, causes psychopathological frames of mind such as trauma, mourning, isolation, and primarily "fear-anxiety"; and, on the other hand it causes changes both in the way that we perceive and think; as well as our behaviors and attitudes. So, this section deals with the psychosocial changes resulting from the global outbreak. It evaluates the pre-COVID-19 world from a psychological perspective, while arguing that, in contrast to the effects of former outbreaks and disasters, the psychosocial changes led by the outbreak will not be forgotten and neutralized easily. It also puts forward that for a long time, which could not be foreseen while we are still living under the influence of the outbreak, we will try to confront problems utilizing psychological mechanisms formed after the outbreak like "prosthesis", and that we will create "new normal" patterns in our daily life styles.

Keywords
COVID-19 pandemic, prosthesis psychology, new normal of post-pandemic

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

While the COVID-19 pandemic still maintains its effect almost all over the world, all countries and international institutions try to identify the changes revealed after the pandemic, to prevent the spread of the disease, and to actualize the measures and changes appropriate for the new situation. In the beginning, even the World Health Organization was not thinking that the pandemic will have such a strong effect, it was assumed that it will be a permanent table like an epidemic such as the Zika, MERS, SARS, Ebola, etc. epidemics. But, after making intensive observations and generating ideas on the destruction and changes being and will be caused by the pandemic in our lives and psychologies, the most authorized names of the political, thinking and science world express their opinions that COVID-19 pandemic has an effect that cannot be even compared to the previous pandemics on earth (but top ten pandemics in the history (NTV, 2020a) so popularized that it might have been an easy question asked in the exams at schools) and that nothing will be the same again. From politics to economy, from security to environmental problems, from medical technologies to tourism and agriculture, and even to fine arts, every area is in a hurry to discuss the state of the world to be encountered after the pandemic (Harari, 2020; Perspektif, 2020; Türkiye, 2020; Çarmıklı, 2020).

One of the most identical aspects of COVID-19 pandemic is the expression of the scenario on that this pandemic "emerged as a means of biological war (bioterrorism) intentionally by some states or out-of-state actors" by many authorized names, including the administrators of the USA, and the inclusion of the World Health Organization into this tension by stating that it is not impartial (Police Academy Report, 2020). As the news concerning the increase in the tension between USA-China, even about the war danger have been added following the pandemic that recently started to find place frequently in the media with the statements on the possibility of a biological war (Korkmaz,

2020), this naturally causes both fear, suspicion, and anxiety, and also the consideration and feeling that "nothing will be the same again".

The ideas about how the world will be like after the pandemic often get too far off the track and get away from being realistic assessments, concrete situation determinations interpenetrate with the wishes and advice. "The world cannot find a better milestone to start the era of empathy… It seems that our perspective of life will change a lot after this pandemic. Maybe we will remember what we lost on the road ... The days we live are full of a long existential therapy session (Sayar, 2020). "All outbreaks trigger new developments in humankind history... The world holds its breath and waiting for a change" (Çakır, 2020). "In particular, COVID-19 exacerbates preexisting conditions of inequality wherever it arrives. Before long, this will cause social turmoil, up to and including uprisings and revolutions" (Kluth, 2020). "And in the midst of this terrible despair, it offers us a chance to rethink the doomsday machine we have built for ourselves. Nothing could be worse than a return to normality" (Roy, 2020). "The death of re-normalization... Or is Lord a virus? (Zizek, 2020). The studies on how the pandemics changed the world (Crawford, 2019; Sherman, 2019; Roser, 2020) are presented as evidence of these opinions.

This whole process, rather than academic publications having its own rules and flow, takes place in media platforms that are open to the public with the explanations of experts having academic titles.

Before the COVID-19 pandemic, there were incidents, disasters, scarcities, world wars, and more importantly, epidemics that caused more deaths and suffer that all shook the world. Humanity manages to overcome all these difficulties with patience, courage, and hope and normalize life again. Without any doubt, after all, some changes have occurred in different areas of life. However, after the pandemic we experienced, it is the first time we bring it this much on the agenda that nothing will be the same again, including our perspective at life and the functioning of our psychology.

When it is considered from a psychological perspective, why we think about this is as important as what will change after the pandemic. There may be many reasons why we think so much about life after the pandemic. On top of these, although the pandemic has shown regressions in some regions, it continues, in other words, we are still living in danger. On one hand, it is said that the danger continues by decreasing, but on the other hand, it is strongly expressed that there are possibilities of a second wave and similar pandemics in the resulting panorama. Even the quite pessimistic declarations given in May by the World Health Organization that was making hopeful statements at the beginning (Hürriyet, 2020) necessarily cause a negative psychological effect, and strengthens the evaluations that it is not possible to continue the lives in the same way as before the pandemic.

If we leave aside the evaluations reached over-interpretation level where the romantic expectations well mixed with the case, it is obvious that this pandemic, of which we have no idea about the exact date of the end as of May 2020, will ultimately change the functioning and roles in our world. There are many benefits to think about what kind of life is waiting for us after the COVID-19 pandemic and what will change in the mental area. First of all, if we can see the post-pandemic picture well, we can have the opportunity to get prepared for the problems that will arise and to be able to deal with them more competently and to develop appropriate psychosocial strategies. The best way of detecting and foreseeing the changes that occurred and may occur in the psychosocial area after the pandemic and of looking for an appropriate answer to this question is to make a start with a good description of what kind of a world we were living in before the pandemic, in other words, to spend the effort to understand within which social conditions and state of mind we caught the pandemic. The psychosocial outlook in our pre-pandemic world determines the lifestyle, flow, and rhythms in the world we live in to which many scientists revealed with their researches and many thinkers puzzled their heads. What we have to do is to consider their determinations and opinions in terms of mental health.

General Pre-Pandemic Status of World

These three points are emphasized in general as the processes that have already started in the pre-pandemic world but have been strengthened and updated with the pandemic: "Progress of the digital age, redefinition of the function of companies, and the re-rise of the nation-state" (Turan, 2020). The things that attract the attention first when we consider the pre-Coronavirus pandemic world in terms of mental health (Göka, 2009a; Göka, 2020) were the following: Since the end of the Twentieth Century, we have already started living in a different world, and the concept that was describing this world at the best was "globalization". Constituting the base of the giant changes in the communication system, the globalization was an economic, political, technological, cultural, and multidimensional fact. Electronic communication had the power to instantly transmit the news and information from one part of the world to another. The economy ceased to be industry and state-based and focused on the service industry, so the consumption replaced production. The services in the fields of information, entertainment, communication, electronics, and finance became the lifeblood of the economy. The stock market, plaza, and shopping centers had a determinant effect on the flow of life. The developments in the means of transportation and the network carried the business life to the world-scale, and the tourism activities were more intense than ever before. The rapid aging of the world population, particularly more in economically developed countries, increase of population more in countries having less share from wealth, migrations from east and south, where there were poverty, wars, and regional problems, to west and north, and the influx of refugees were the outlooks that attracted the attention most (Giddens, 2000:67). The devices that emerged as a result of digital technologies, advances in biotechnology were dazzling. The

technology was emphasized more than human, and it was said that we entered the "post-human era" (Bradiotti, 2014; Fukuyama, 2003). Not only the share of the elderly in the population but also their strength in the economy and politics were increasing, a gerontocracy was being mentioned (Thurow, 1997; Bessner & Austin, 2018). The gradual prevalence of living alone was one of the social aspects that came to the forefront before the pandemic. After realizing that there is a high elderly population who was found dead in their houses from extreme temperatures and could not be heard for days in the USA in the summer of 1995, the sociologist Eric Klinenberg wrote the book "Going Solo" in (2013). Since then, the concept quickly spread across the academy world to symbolize a new lifestyle wave. After the Second World War, publications that added a negative meaning to the phenomenon of loneliness in developed Western countries increased, loneliness started to be defined as a "modern era virus" (Selimi, 2016).

All these issues determine psychosocial experiences; a leading sociologist was giving "liquid modernity" name to such a rapid flow of life (Bauman, 2015). We were living in a risk society (Beck, 1992), external dangers arising from nature and tradition were controlled to some extent, but the risks generated by us, environmental problems, armament, nuclear hazard, and volatile financial markets were indeed bearing the potential to cause major disasters at the instant (Giddens, 2000, pp. 35-48). It was being determined that we were living in a "culture of fear" long before the pandemic, that we started to feel afraid of everything from "falling in love to shaking hands, getting on an elevator to take a flight", and seeing colleagues, neighbors or even other members of the family as potential enemies. In addition to fear, it was said that insecurity became the dominant emotion, the culture of fear reduced the importance of the human subject, and that the opinion about the ineffectiveness of human intervention for changing the current situation is processed into the minds. "The feeling of self-hatred of humankind constitutes the basis of today's culture that focuses on the new epidemic dangers" (Furedi, 2017: 61). Baumann was saying, "In our world, which is the updated version of the Hobbescu world, life is like walking in a minefield that has never been mapped or lost, if so. I remind you that this field is so full of explosives, although it is inevitable that the explosions will happen, again and again, nobody knows where and when these explosions will take place...", and he was underlining the inability anxiety that he was explaining as "war of everyone with everyone" on one hand, and on the other hand as "a common sense that the power is in somewhere else than where you are" (2018: 48-52). As multiculturalism, democracy, and human rights statements and practices were declining, admiration for technology, fanaticism, xenophobia, racism, and Islamophobia was rising.

When the picture of the pre-pandemic world is taken into consideration, how the fact "virus does not circulate, but people do" facilitated the pandemics along with the globalization can be understood on one hand, and on the other hand, it can be observed that indeed the people are not very far from the mental status with apparent fear and anxiety emerged during the pandemic.

While living in an age of anxiety, feelings of fear, anxiety, suspicion, and hate towards the other were determining the flow of emotion in our psychology, the COVID-19 pandemic that emerged in China towards the end of 2019 turned into a global state in a very short time. The psychosocial reactions and attitudes that emerged after the pandemic rose on the previous structure. However, a conclusion as "people and society were already immune and ready" should not be drawn. The fully opposite is in question. Researches show that anxiety and trauma increase more and become chronic when new ones are added to adverse psychological pictures (Briere & Scott, 2015). This determination is very important when evaluating the main psychosocial appearances that will emerge in our world after the pandemic, and the mental picture awaiting us.

Post-Pandemic Mental Panorama

Similar mental pictures emerged along with the commencement of the pandemic and the occurrence of the first cases in different countries. While we evaluate the post-pandemic mental panorama, certainly our attention, rather than all these, is to go towards the ones that are common and possibly have the potential to be permanent or leave a trace in the future. From this point of view, first, psychopathological mental reactions draw attention.

For sure, fear and anxiety are among the most common psychopathological pictures that come out of the pandemic. The emergence of mild and moderate fear and anxiety with the pandemic was an expected situation, but in many people, fear and anxiety did not stop on top of that but reached very advanced points. The uncertainty that is caused by the lack of scientific knowledge about the virulence and the clinical problems it will cause, and by not knowing the point to where the adverse condition of the resulting fatal disease, which caused the collapse of health systems in some countries, will drag the world was the basis of the people's anxieties to catch the concrete disease (by themselves and their relatives) and maybe cause others to catch the disease without even realizing. To these disease-related concerns, the concerns that are related to how the adverse changes started with the pandemic negatively affected and will affect the lives, socioeconomic conditions, expectations, and ideals of people (themselves and their relatives) have been added. Those who previously had mental disorders and those who could not exhibit psychological resilience experienced severe fears related to the catching of the disease by themselves and their relatives and to transmit the disease to others. As a result of all these, particularly during the first period of the pandemic in a country, people run on markets due to the intensive social anxiety-related uncertainty and fear of scarcity, even long queues formed in the USA to buy guns, and death cases observed due to the intake of substances that are said as good for the disease. Even when the panic in the first days of the pandemic subsided, people's efforts to shop and go to the fore of the queue without regard to each other's rights continued. During the COVID-19 pandemic, the relevant professional organizations (TPD, 2020) and professionals focused heavily on the effects of fears and anxieties on our lives, as well as on what to do, and took part in the media (Türkçapar, 2020; Yeşildal & Reyhanlıoğlu, 2020).

As of May 2020, the fear and anxiety that started with the pandemic continue without any significant change in its severity. The uncertainty in the areas of medical protection, such as transmission, treatment, and vaccination of the disease, continues with positive but mostly negative news from time to time. It is clear that, as long as this is the case, fear and anxiety will not be easily relieved, people with psychological weakness will need psychiatric help and will be determinant in post-pandemic life and behavior styles, and measures to be taken.

Apart from the occasional low-intensity mass panic of fears and anxieties, the "traumatic" dimension of the psychopathological process has emerged after the news on the commencement of the pandemic in China-Wuhan appeared on media.

There are, of course, negative experiences that can be considered "ordinary" in human life, these cannot be considered within the scope of trauma. What makes a traumatic event different from ordinary negative experiences is the presence of a danger to a person's life or physical integrity and cause of a catastrophic reaction. Individuals can cope with them in a certain way when the negative experiences they encounter are within the usual limits. And in traumatic events, coping skills do not work and are paralyzed. The person remembers this process repeatedly, feels alive at every trigger, his sleep is disturbed, his dreams turn into a nightmare. The traumatic event leaves the individual desperate against a force he cannot resist and often goes beyond the limits of a person's comprehension. His emotional sphere is restricted, his tolerance decreases, experiences bursts of anger, he gives a startle response. He is restless and has difficulty concentrating. After the traumatic experience, the individual has to reconsider his insights about the world he lives, himself, other people, and the future. With trauma, the usual flow of life is interrupted, the previous recording system of the memory and its content undergo significant changes, sometimes memory is almost erased, as if the individual history, even the social memory in its concrete form that is registered in the mind of the individual is reset. The goals to be achieved become meaningless, the future is embedded in obscurity (Göka, 2009b).

Today, the content of the concept of trauma has expanded, in addition to events such as natural disasters, accidents, war, torture, rape, migration, illness, and loss of loved ones are evaluated among the main traumatic events. In general, 60% of men and 51% of women in society have experienced a traumatic event at least once in a lifetime. For these individuals, it has been shown that there is a risk of developing post-traumatic stress disorder (PTSD) by 8% in men and 20% in women (Davidson, 2000). PTSD is the most severe mental condition that can happen to a person after a trauma, it is a difficult condition to treat when becomes chronic. In this disease, in which the post-event life of the individual is disrupted in such a way as to constantly remember the trauma, even during sleep, there is no opportunity to continue life as before. However, even if PTSD does not occur, the traumatic event may have shocking

and destructive effects on the individual's mental life. Almost everyone feels helplessness, inadequacy, impotence, weakness, and anger after trauma. The individual does not want to accept the traumatic life, which damages self-esteem, into his personal history, and resists it. In this resistance process, he tries to take the traumatic event under his control by repeatedly experiencing it. This is a long and exhausting struggle.

Without any doubt, some of the events experienced in the pandemic process mostly comply with the definition of trauma particularly for patients, relatives of patients, and healthcare professionals (Türkçapar, 2020). These traumatic effects of the pandemic are more prominent in psychosocial support services performed for these segments during the pandemic. In our opinion, those who constantly watch the news about the epidemic from the media and social media, and those who encounter horrifying images and who keep an ear on the negativities are also under the traumatic effect of the pandemic. Among the psychopathological pictures that will have the most impact on the social mental state after the alleviation of the pandemic, they are the traumatized cases that will become chronic by coming to the level of discomfort.

While evaluating the psychological disturbances caused by the pandemic, a concept that must be emphasized apart from fear, anxiety, and trauma is "mourning". The pandemic, in which thousands of people died, the health of many disrupted even they are healed, caused a decline in the socioeconomic status, staying away from friends, loved ones, and separation from ordinary living environments. "Other people are now seen as transmitters who should only avoid at all costs and keep themselves at least a meter away. The dead - our dead - do not have a right of a funeral, and it is unclear what will happen to the bodies of our loved ones" (Agamben, 2020), but it is clear that all these will continue to appear as major psychological problems in the post-pandemic period.

The psychological structure of people forces us to mourn after our losses. The loss that causes mourning is not only the death of a loved one, but also the loss of an imaginary object of love, including the living space, the loss of health, strength, autonomy, or a part of the normal function of the body require mourning. The person who experiences a significant loss needs to mourn before the reorganization and reconstruction of his life, to say goodbye to the object that has had a very important place in his life until now, but now lost, to breathe again against the weight of the life and to learn the life. In the process of mourning, the person understands and acknowledges the fact that life is largely out of our control, that life is going on independently of our effort, and that there are and will be many changes that we cannot interfere with. Every acceptance of the facts about life and our humanity grows us and makes us mature.

The mourning process follows a certain path. The mourning period, regaining our mental organization may take months or even years. In some people, the

ability to mourn is impaired due to lack of personality organizations and the severity of the loss is very heavy, and the process continues in an incomplete and complicated form, as cannot go into mourning. The loss of a relative sometimes catches the person so unprepared, suddenly, death comes to the agenda in a very tragic and painful manner, or we are unfortunate to lose many of our relatives at once, even the resistance of the most enduring psychologies may be impossible against these. It is extremely difficult to ensure the healthy functioning of the mourning process in such unexpected and very painful deaths hard to bear. For each death, new role distributions in the family system in question are much more urgent and dramatic in unexpected sudden deaths. Death can lead to unpredicted changes that frequently overturn the family system (Göka, 2018). We previously emphasized how the anxiety and trauma experiences experienced during the pandemic have exacerbated the previously taken over ones and made them widespread and chronic. Our mourning-related information shows that a similar situation is also valid for mourning experiences. It is known that unresolved, complicated mourning experiences negatively affect the psychology of individuals and communities for a very long time (Volkan & Zintil, 2015).

During the COVID-19 pandemic, since attention is directed more towards measures to prevent transmission, the constantly delayed mourning processes can be omitted. It is often not possible for people to say goodbye to their relatives in real terms, and even rituals that play the main role in going into mourning healthily after the loss are not performed. It is not difficult to predict that all these deficiencies will appear before us after the pandemic in the form of not completed and complicated mourning (Beyazyüz, 2020).

In addition to fear-anxiety, trauma, and mourning, one of the psychopathological aspects that manifested itself in connection with the pandemic during the pandemic were within the interest of the field of addiction psychiatry. In addition to smoking, alcohol and substance addiction, gambling, etc. behavioral addictions emerged as the special areas that need to be paid attention in such processes that bring restrictions to daily life. However, this case could not attract the attention of administrators mostly beyond professional awareness (Ak et al, 2020). The media directed its lens more to problems that have the potential to lead to many psychological and medical problems such as eating behavior and need for exercise during the "stay home" process that is an integral part of the pandemic measures (Posta, 2020; CNNTürk, 2020). In the Police Academy report (2020), it is pointed out that the increase in the use of the internet and social media during the pandemic process may lead to behavioral addiction apart from the youth groups who are relatively prone and immune to using these technologies.

Apart from all these, increase in anger, tension and communication problems, quarantine and isolation problems, increase in family conflicts due to being forced to stay at home for a long time, to behave within certain limits during the pandemic (Euronews, 2020), relapse in the disturbances of those with

previous mental illness, psychopathological problems such as the increase of obsessive and skeptical reactions due to the increase in the anxiety of those who have an anxious personality should also be recorded, and it should be kept in mind that some of them will extend to the period after the alleviation of the pandemic.

In the evaluation report (2020) of the Police Academy regarding the psychological and sociological situation that will emerge after the pandemic, attention is drawn to the problems that will result from social relations caused by staying at home for an indefinite period. The report points out that as a result of physical isolation, the obligation of the people to share narrow physical areas with monotonous activities, to establish limited communication only with the internet and phones, hours spent without a specific purpose on the internet and social media may cause mental and emotional skills to be damaged, and emphasizes that some people may believe in conspiracy theories more, interpersonal violence may increase and social relations may be negatively affected in long-term during this process.

Fear-anxiety, trauma, and mourning were the main mental appearances that emerged during the pandemic due to the pandemic and reached psychopathological dimensions. Their effects are common and long-lasting, and they are sure to make strong reflections ahead. During the pandemic, some other common reactions, attitudes, and mentalities emerged that rose above the pre-pandemic psychosocial structure, concern individual and social psychology rather than psychopathology, and differ from the pre-pandemic period. Measures such as curfews and travel prohibition, quarantine, temporary stoppage of the operation in some sectors, wearing masks, and obeying the physical distance taken to prevent the spread of the pandemic by the administrators both reinforced these reactions and attitudes, and directed by them. When those who had previously had a psychiatric condition will enter into an even more negative clinical situation both due to not be able to get adequate treatment and care due to the pandemic and the triggering effect of the new living conditions are added to all these, the call of the Secretary-General of the United Nations is justified. Guterres, Secretary-General of the United Nations, highlighted the mental effects of the COVID-19 pandemic and called on all governments to increase their investments in mental health (Yürük, 2020).

Apart from the psychopathological views that give the main color to the psychosocial picture of the post-pandemic period, the following can be briefly mentioned about some other common reactions, attitudes, and mentalities that differ from the pre-pandemic period:

One of the most striking facts during the COVID-19 pandemic was the increase in people's interest in both science and technology and spirituality. The belief that science technology that was prevalent in the pre-pandemic period will cure everything, even death, has regressed considerably. Even the

idea came to the forefront that human-nature relations and the deterioration of ecological balance by modern technology played a key role in the pandemic. However, the belief that the concrete remedy for the pandemic would come from scientific studies was common, therefore the anti-vaccination that began to spread in the pre-pandemic period almost stopped. "Which scientist and physician do not pray from his heart for a miracle that can be experienced? Which religionist does not rely on science?" (Çakır, 2000: 220) questions were rightfully asked, but this common-sense did not prevent the polarization of the claims of those who put forward the fields of science and spirituality as the only savior.

One of the previous forms of reasoning that had a serious injury during the pandemic process was related to the "West" and "Western people". During the pandemic, the negative humanity views spread from Western societies, particularly the USA, destroyed the perception that Western countries are the places of democracy, human rights, peace, and tranquillity. But on the other side, both the meaning of globalization is recognized, as well as its power is understood. The concept of "country borders" revealed to be rather legal, and that what happened in China yesterday may well be with us today or tomorrow. This was not only for the spread speed of the disaster but seeking remedies and relief efforts such as the vaccine. It is often expressed that we are on the threshold of deciding whether the tension, conflict, and insecurity or trust, conciliation, and solidarity will determine the future of the world. But just like in the establishment of the United Nations after the Second World War and the continuation of the cold war, the possibility of the acceptance that both feelings are within the "human condition" and the continuance of the same progress fundamentally, although there were some forms of changes, were strong.

During the pandemic, the most influential concepts on sociopsychology were the need for government, leadership, and trust. At such times, rather than the rights and freedoms, it became apparent that the people will request the fulfillment of such needs, and that people could give up their privacy if necessary for the sake of this. The fact that states such as China, which do not mention democracy in its governing, were relatively successful in the management of the process reinforced this perception. Such a sociopsychology has created a mental conjuncture that demands the immediate performance, not even the facilitation, of states' supervision activities and new national and international arrangements that facilitate audits under the name of "medical trust" (Göka, 2020).

The constitution of the biggest risk group in the pandemic by the elderly, occurrence of the losses mostly in nursing homes and elderly care centers, and the fact that some countries did not provide treatment to the elderly due to medical difficulties experienced caused, at a first glance, an image that invalidated the elderly dominance determinations made before the pandemic. However, one should not hurry for this. Because, while the prolongation of

the human life and the increase of the share of the elderly in the population is a reality of the times we live in, the other is the loss of cultural value of the elderly and the promotion of being physically and mentally young (Walker, 2018). But, it should be noted that we do not know the situation of the wealthy elderly during the pandemic, that, as found place in the news, some wealthy people engaged in things such as buying an island, obtaining special respirators, building hospitals that only they can go to, etc (Ersanel, 2020). It is still unclear what kind of a picture will occur finally, but if there is an obvious situation, then it is and will be the poorest and lonely elderly people who are in the most difficult situation.

While addressing the situation of the elderly, it should be stated that special attention is required for the situation of children, youth, disabled people, the unemployed, those who have been unemployed due to the pandemic, in other words, all disadvantaged groups whose daily lives and plans, particularly their education, interrupted during the pandemic. As a result of the measures and decisions taken in our country, although it was not observed but in some of the Western countries, particularly in the USA, the groups deprived of social security had difficulties in diagnosis and treatment applications and were even rejected during the pandemic process. This led to intense criticism of the liberal health system. For now, although it does not appear within the main psychopathological tables related to the pandemic, the possibility of adaptation problems, particularly depression, that may occur in the future should be recorded seriously. At this point, the evaluations suggesting the class difference (Kluth, 2020) should be taken into consideration regarding the fact that the pandemic does not treat everyone equally as thought.

In dangerous cases that appear suddenly while people are gregarious, they may experience fear, panic states, and violence may occur among individuals who are trapped in limited physical and social areas, and even crimes such as assault, murder, looting may increase (Police Academy Report, 2020). These are exceptional cases specific to the situation. Social compliance and obedience behavior, as shown in the famous work called Milgram (1974) experiments in social psychology, is indeed valid in social life (Sutherland, 2013: 33-57). These experiments were criticized once upon a time. It was pointed out that in liberal western democracies, it was made with people raised in a certain conformism environment. According to our opinion, the picture revealed after the pandemic exhibited that these criticisms may be right. Because, surprisingly, some people did not even comply with the health authority, besides the political authority, and did not even pay the minimum attention not to harm themselves and others. The concept of *covidiot* formed for these people took their places in the dictionaries (DaveManuel.com, 2020); but on the other hand, a need emerged to do new research in social psychology about a side of us that does not comply with authority and majority.

Since we are still in the pandemic, searches continue for solutions in industries such as shopping centers, travel, tourism, entertainment, health,

and sports, etc. where social contact is very intense. Although it is early to perform evaluations about where they will go towards, some clues emerged on those solutions that will not jeopardize the characteristics of the consumer society will be found. If there is a situation seen, then it is a significant shift from traditional media to the use of social media and that this process will continue increasingly (Erdoğan, 2020). As a result, developments that will be determinant in all these areas will be shaped according to the psychological reactions and attitudes of individuals to the COVID-19 pandemic.

Some Foresights on Post-Pandemic Mental Health and Conclusion

We are living in a world that is already in the COVID-19 pandemic, and uncertainty remains on how long the process will take, what will be the extent of its effects on individual and social psychology, and how severe it will be. Only in some countries, there are predictions made by acting from the news that includes the findings of the decrease or even stop of the spread, and modeling carried out for academic institutions and organizations. But, as well, the information that the virus's mutation ability, new waves may emerge and other virus pandemics may occur, and that the food supply can be added to the already experienced food safety problems if the pandemic prolongs were filling the agenda. Briefly, there is no light at the end of the tunnel that the pandemic is prevented or ceased to be a significant health problem worldwide. However, like any other major pandemic, an alleviation is thought to be experienced in the COVID-19 pandemic, too. Although the possibility that social psychology chooses to forget as a coping method after such pandemics has been confirmed by examples of both the Spanish flu at the beginning of the century and the recent H1N1 (swine flu) pandemics (Police Academy Report, 2020), this time nobody thinks that this pandemic will be forgotten in a short time. Finally, David Rayn, Director of Emergency Situations of the World Health Organization, warned that COVID-19 can be as permanent as HIV (NTV, 2020b). It is taken for granted that the COVID-19 pandemic will cause serious damage to individual and social psychologies and will make a significant change in psychological responses, attitudes, and mentality functioning compared to the pre-pandemic periods (Harari, 2020).

The forms that will be taken by damage and changes that will take effect for a long time after the COVID-19 pandemic and how permanent they will be dependent on the duration of the pandemic, its severity (number of cases, mortality and disability rates), whether it will cause other waves or not, interference with pandemics with other factors and how the social anxiety will be managed, the features of the measures to be taken, and the reflections it causes in social psychology, and finally the media and social media's publication policy and the way news are published. For example, strict measures to the extent that social psychology cannot handle, the fact that isolation is long, severe and strict enough to exceed the tolerance limits of people, or vice versa, acting with lack of care, slackness and nonchalance may lead to social movements that we cannot foresee today, moreover, the re-exacerbation of the

pandemic and the chaotic state of the situation... For example, allowing media and social media to spread exaggerated, false news about the pandemic in an uncontrolled manner may cause reactions that are not foreseen and for which the consequences are not known...

We can make some predictions about what kind of psychosocial pictures may emerge after the pandemic begins to alleviate, in other words, which aspects will be relatively permanent in the appearance emerged after pandemic and which new forms will it take, provided that these are kept in parentheses and in our minds.

The pandemic, wherever we look from, is a state of crisis in individual and social psychology. In times of crisis, both individuals and communities cannot maintain their previous levels in their psychological functions. The state that the psychoanalyst Volkan called "large group regression" occurs (2005: 86-88). The community becomes introverted, fanatical, underestimates the values of other communities while uplifts its values, authority dependence, and savior expectation increase. A similar approach shows itself in "a terror management theory" in psychology (Solomon, Greenberg & Pyszczynski, 1991). According to this theory (i) When individuals face the terror of death, they are attached more closely to their cultural values and traditional worldviews. (ii) Such attachment helps individuals develop their self-esteem and create the perception that they serve a more lasting holy purpose beyond their mortal bodies (Police Academy Report, 2020). This theory has been tested by many experimental studies, so indeed, when people have been "reminded of their mortality or face death-related stimuli (funeral car, cemetery, etc.), people's thoughts, judgments, and behaviors have been shaped more traditionally, more conservatively and more positively in their groups, but they exhibited more negative behaviors, attitudes, and judgments towards individuals outside their culture. Basing on the terror management theory, the Police Academy Report (2020) concludes that, in a short term after the pandemic, people "focus on their survival struggles, while at the same time, we can expect them to be more closely tied to their cultural values", and explains "even among the countries that are a member of the same international union, the decrease in cooperation due to the protective conservatism for their citizens" in this way in this process.

Police Academy Report (2020), which predicts that after the COVID-19 pandemic, technological developments and innovations will be experienced in the fields of security practices and economy, particularly health, efforts to become a self-sufficient economy will increase, and particularly the liberal economic practices in the field of social security will regress and the understanding of social state and indigenousness will increase, does not consider similar changes for human psychology. Says, "The claim that a single factor can make a big change when it comes to human behavior and changes in social relations does not seem very realistic when the historical process is considered and the fundamental elements of human psychology that have not changed over the ages are taken into consideration." According to the report,

which foresees significant changes particularly in a driver-free vehicle, digital money usage, and digital tracking system, the behavioral changes to be seen after the COVID-19 pandemic process will be limited to "some changes in people's consumption and savings understanding, hygiene habits, attitudes towards certain groups and many more", but they will also not exceed the limits of normal change, and will be restored to the previous state after the unusual situation ends.

Of course, there will be no change in the structure of human psychology, contrary to some romantic expectations, a mentality such as solidarity, spiritualist, enlighteners, etc. will not dominate instantly, the basic features of capitalism and consumer society will not change. Some say that with the effect of the pandemic, nothing can be positively the same as before, and human-nature relations will change. While death and even mass deaths are so close, they now think that people leave ambition and fate aside and will focus on goodness and beauty. Without any doubt, the post-pandemic period can deepen the spiritual perspective of some people who are already prone to, enable them to grasp the delicacies of life, the world, and human, but the reported that the expectation of total enlightenment is in vain is right. Likewise, "a society that has no moral value other than survival" that negatively changes the human nature that frightens opponent thinker Agamben (2020) will not be constructed. Human nature does not change with such a pandemic, and our psychology based on virtues such as mercy and solidarity, which is the basis of human and social life, cannot permanently abandon its moral and conscientious side (Göka, 2020).

In addition to this, the changes that will occur in the psychosocial aspects of the world after the pandemic should not be underestimated. It is indisputable that all changes mentioned in the Police Academy Report (2020) will mean changes not only in human nature but also in the usual behavior patterns of people.

In the pandemic we are experiencing, when the relatively lower numbers of cases in the places with rare population are considered along with the discussions related to vertical architecture, the initiation of a movement towards the rural and the increase in the tendency to open and green areas in the cities and horizontal architecture in the building, the increase in the number of small flats appropriate for solo life, and maybe the regaining of the importance of the neighborhood and district will mean an enormous sociopsychological change. Likewise, the rise of traditions, the increase of fanaticism and authority dependence, and the growth of electronic eyes and tracking to eliminate the privacy in the name of security will cause completely different psychosocial scenes and reactions. The longer the pandemic lasts, the more the human freedom restricting measures taken by governments in this period will be taken for granted, a new situation will arise where people will accept and adopt non-democracy ways for overcoming pandemic diseases and allow their lives to be controlled by the government in power and allow cyber domination

more. “So far, when you touched a ‘link’ on the screen of your smartphone, the government was just interested in what your finger clicked. However, the focus of interest changed with the pandemic. Now the public authority will want to know the temperature of your finger and the blood pressure under the skin” (Harari, 2020). Social media, which had already begun for a long time before the pandemic, has become stronger after the pandemic, and as a result of more increase, it will likely change all forms of communication, perception and thinking beyond the discussions of essential media, and internet and technology addiction, and make virtual communication more prominent than face-to-face communication (Göka, 2017).

To be able to keep pace with all these changes and to cope with a picture in which uncertainty is so evident and psychopathological appearances such as fear, anxiety, trauma, mourning, isolation mood gradually increase and deposit in social memory, there is a need for new behavior patterns with unknown time of use, indeed a “psychological prosthesis”[2] and a lifestyle that we can call “new normal” to be maintained with that prosthesis. The May 6, 2020, dated statement of the Minister of Health of the Republic of Turkey (Beats & Karaaslan, 2020) truly points out prosthesis psychology and the “new normal” period that we try to explain. A controlled social life will be tried to be ensured by wearing a mask and maintaining the necessary physical distance everywhere. From the psycho-social point of view, since negative mental pictures emerge with the pandemic will show themselves more gradually, we can add to overcome, to try to bind up wounds to these, too.

“New life”, which we will have to live with prosthesis psychology for a while that we now cannot see the end of, will bring great changes in our social life even if it is explained with a mask and the necessary physical distance at once. Even a glance at the “new life guide” (Milliyet, 2020) prepared by the Ministry of Health is sufficient to see the dimensions of the changes. Organization of entertainment, food and beverage, travel, cinema, theater, sports venues according to the physical distance rule, the failure of foreign tourism to reach its previous order for a long time, preference of home visits to meetings outside, shopping online to shopping malls, the emergence of home and flexible working, distance education, video meetings, electronic signature, the complete limitation of physical contact with the strangers and partial limitation with the relatives, the changing of the greetings, the gradual reduction of the handshaking, transformation of a hug and the cheek to cheek kissing into a very special, prestigious behavior, a very different lifestyle and organization

[2] When we could not stop using smart devices such as mobile phones and tablets, a definition was made that they are now our prosthesis organs (Göka, 2017, p. 76). During the pandemic, I recognized this in the course of my thinking about the way to keep individual psychology as healthy as possible. To cope with the anxiety that emerged during the pandemic and come over us like an avalanche, it was necessary to see its mild and moderate severity forms as “normal” and to get used to living with it. I thought that this situation resembled to continue our eating-drinking habits when we know that there is a temporary problem in our teeth. When I try to think more about mental health after the pandemic and learn about the information produced in other areas, I see that the pandemic will last until the time we cannot predict the effects of our psychology, in other words, it will last much longer than we think. When we add that “virtuality” emerged with the daily use of digital technologies is a new form of reality to this situation, it has become possible to say that the effect of the pandemic in our psychologies has opened a new prosthesis section that is almost unknown at other times in history. For a long time after the pandemic, our psychologies will keep this prosthesis section opened within itself with the simultaneous operation of many mechanisms to adapt to the situation that emerged during the pandemic, and will continue to live and act as if there was a probability of a pandemic.

compared to the pre-pandemic world will emerge. “Crowds” will create fear for a long time, digital socialization methods will increase, individual and small group activities will gain importance in entertainment and sports activities. Digital socialization methods will increase. Public transportation will become a drawback, the number of bicycles and private vehicles will increase, however, along with this, searches for clean energy that will not pollute the environment and not dependent on petroleum will be started.

As a result, after the COVID-19 pandemic, the characteristics of the pre-pandemic consumer society were taken over. These characteristics will be updated by creating new normal living standards to minimize the risk of transmission and will lead to major changes in all areas of life and along with them, in psychosocial life, perception, thinking, behavior and attitudes. Changes in the psychosocial area will not be limited to the further strengthening and spread of the “anxiety era” and “culture of fear” characteristics that were already in force before the pandemic and to the behavior and mentality changes emerged thereto, and the “fear-anxiety”, but psychopathologies such as “trauma”, “mourning”, “isolation mood” affecting large segments during the pandemic, “problems of adaptation” to the negativities arising in the socioeconomic area will settle in social psychology and threaten mental health. Even if the pandemic has completely alleviated and disappeared, the mechanism of forgetting and denial that take effect immediately after the previous disaster cases will not be able to take effect immediately in this pandemic, which affected the whole world for the first time in the period of globalization and introduced into people’s eyes and psychology through the media. The fact that similar pandemic possibilities and rumors of biological war are always on the agenda will prevent this forgetting psychology.

Of course, there are also things to be done, restorative, remedial, preventive interventions and measures to be taken against these negative predictions in terms of mental health, against this pandemic and possible future pandemics. But to discuss what these and the mechanisms to implement them are, we must first select one of the choices mentioned by Harari (2020) or a third way: “In this kind of crisis, we have to make two very important choices. First, the choice that must be made between totalitarian surveillance and authorizing/empowering the citizen. The second is the choice we will make between nationalist loneliness and global solidarity”. Yes, there is a third way: To strengthen both the social state, the citizen, the original national option, and international solidarity...

References

Bauman Z. (2015). *Akışkan Modern Dünyada Kültür.* Çev. İhsan Çapçıoğlu, Fatih Örnek. Atıf Yayınları. İstanbul.

Bauman Z. (2018). *Retrotopya.* Çev. Ali Karatay. Sel yayıncılık. İstanbul.

Beck U. (1992) *The Risk Society: Towards Another Modernity.* Sage.

Bradiotti R. (2014). *İnsan-Sonrası.* Çev. Öznur Karakaş. Kolektif Kitap. İstanbul.

Briere J., Scoott C. (2015). Complex trauma in adolescents and adults: Effects and treatment. Psychiatr Clin N Am, 38:515-527.

Crawford D. H. (2019). *Ölümcül Yakınlıklar: Mikroplar Tarihimizi Nasıl Şekillendirir?* Çev. Gürol Koca. Metis Yayınları.

Çakır Z. (2020). *Kaygı Çağı: Salgın Zamanlarında Ruh Sağlığı.* (ss. 203-235). Sayar K. (Ed.). Kapı Yayınları.

Davidson J. R. (2000). Trauma: The impact of post-traumatic stress disorder. *Journal of Psychopharmacology, 14*(2), 5-12.

Fukuyama F. (2003*). İnsan Ötesi geleceğimiz: Biyoteknoloji devriminin Sonuçları.* ODTÜ Yayıncılık.

Furedi F. (2002) *Korku Kültürü.* Çev. B.Yıldırım. Ayrıntı Yayınları

Giddens A. (2000). *Elimizden Kaçıp Giden Dünya.* Çev. Osman Akınhay. Alfa Yayınları. İstanbul.

Göka E. (2009a). Küreselleşme ve Ruh Sağlığı. *Hayatın İçinde Psikiyatri*. (ss. 11-23). Hayat Yayınları.

Göka E. (2009b). *Hayatın İçinde Psikiyatri*. (ss. 67-71). Hayat Yayınları.

Göka E. (2017). *İnternet ve Psikolojimiz: Teknomedyatik Dünyada İnsan*. Kapı Yayınları.

Göka E. (2018). *Hoşçakal: Kayıp, Matem ve Hayatın Zorlukları.* Kapı Yayınları.

Göka E. (2020). Yepyeni Bir Dünyada Yaşarken Gezegenimize Pandemi Çarptı. *Kaygı Çağı: Salgın Zamanlarında Ruh Sağlığı.* (ss.131-163). Sayar K. (Ed.). Kapı Yayınları.

Klinenberg E. (2013). *Going Solo: The Extraordinary Rise and Surprising Appeal of Living Alone*. Penguin Books.

Millgram S. (1974). *Obeidence to Authority: An Experimental View*. Harper and Row.

Polis Akademisi Raporu. (2020). COVID-19 Salgını ve Sonrası Psikolojik ve Sosyolojik Değerlendirmeler. Polis Akademisi. Retrieved from: http://www.pa.edu.tr/Upload/editor/files/Covid_Sonras%C4%B1_Psik_Sos_Degerlendirmeler.pdf (05.05.2020)

Sayar K. (2020). Salgın Bize Ne Öğretiyor? *Kaygı Çağı: Salgın Zamanlarında Ruh Sağlığı.* (ss.163-203). Sayar K. (Ed.). Kapı Yayınları.

Selimi T. J. (2016). *The Virus of the Modern Age.* Balbos Press.

Sherman I. W. (2019). *Dünyamızı Değiştiren On İki Hastalık.* Çev. Mine Anğ Küçüker, Emel Tümbay. Türkiye İş Bankası Kültür Yayınları.

Solomon, S., Greenberg, J., & Pyszczynski, T. (1991). A terror management theory of social behavior: The psychological functions of self-esteem and cultural worldviews. In *Advances in experimental social psychology* (Vol. 24, pp. 93-159). Academic Press.

Sutherland S. (2013). *İrrasyonel*. Çev. Tevfik Uyar. Domingo Yayınları.

Thurow L. C. (1997). *Kapitalizmin Geleceği*. Sabah Kitapları.

Türkçapar M. H. (2020). COVID 19 Kaygısı ve Travması. *Kaygı Çağı: Salgın Zamanlarında Ruh Sağlığı.* (ss.17-44). Sayar K. (Ed.). Kapı Yayınları.

Volkan V. D., Zintil E. (2015). *Life After Loss: The Lessons of Grief.* Karnac Books.

Yeşildal M., Reyhanlıoğlu E. (2020). *Salgın Psikolojisi.* Destek Yayınları.

Volkan V. D. (2005). *Körü Körüne İnanç: Kriz Dönemlerinde Geniş Gruplar ve Liderleri*. Çev. Özgür Karaçam. Okuyanus Yayınları.

Walker A. (2018). The Future of Ageing in Europe: Making an Asset of Longevity. Springer Verlag.

Zizek S. (2020). *Pandemic! Covid-19 Shakes The World*. OR Books.

Web Sources

Agamber, G. (2020). *Hayatta kalmaktan başka ahlaki değeri olmayan bir toplum nedir?* (Çev. E. B. Aslanoğlu). Retrieved from: http://uni-versus.org/2020/03/18/ceviri-agamben-mart2020 (07.05.2020)

Ak, S., Akgül, İ. F., Karadağ, F., Ögel, K., Öyekçin, D. G., & Uluğ, B. D. (2020). COVID-19 Pandemi Döneminde Alkol ve Madde Kullanımı ve Kullanım Bozukluğuyla İlgili Öneriler. *Türkiye Psikiyatri Derneği Alkol Madde Kullanım Bozuklukları Çalışma Birimi*. Retrieved from: https://www.psikiyatri.org.tr/TPDData/Uploads/files/AlkolMaddeCOVID-16042020.pdf (07.05.2020)

Bessner, D., & Austin, D. (2018). America has become a gerontocracy. We must change that. The Guardian. Retrieved from: https://www.theguardian.com/commentisfree/2018/oct/06/congress-senate-house-age-problem (05.05.2020)

Beyazyüz, M. (2020). Pandemi yas sürecini olumsuz etkiliyor. Star Açık Görüş. Retrieved from: https://www.star.com.tr/acik-gorus/pandemi-yas-surecimizi-olumsuz-etkiliyor-haber-1529827/ (05.05.2020)

CNNTürk. (2020). *Karantina sürecinde evde nasıl egzersiz yapılmalı?*. Retrieved from: https://www.cnnturk.com/saglik/karantina-surecinde-evde-nasil-egzersiz-yapilmali (07.05.2020)

Çarmıklı, B. (2020). Pandemi sonrası sanat üretimi. *Milliyet*. Retrieved from: https://www.milliyet.com.tr/yazarlar/banu-carmikli/pandemi-sonrasi-sanat-uretimi-6203517 (10.05.2020).

DaveManuel.com. (2020). *Definition of Covidiot*. Retrieved from: https://www.davemanuel.com/investor-dictionary/covidiot/ (09.05.2020)

Erdoğan, M. N. (2020). "Koronavirüs nedeniyle evde kalmak günlük teknoloji kullanımını artırıyor" uyarısı. *Anadolu Ajans*. Retrieved from: https://www.aa.com.tr/tr/bilim-teknoloji/koronavirus-nedeniyle-evde-kalmak-gunluk-teknoloji-kullanimini-artiriyor-uyarisi/1786069 (07.05.2020).

Ersanel, N. (2020). Temasla gelen düzen. *Yenişafak*. Retrieved from: https://www.yenisafak.com/yazarlar/nedretersanel/temasla-gelen-duzen-yeni-dunya-2054649 (07.05.2020)

Euronews. (2020). Çin'de koronavirüs karantinasında kalan çiftlerde boşanma başvuruları ve aile içi şiddet arttı. Retrieved from: https://tr.euronews.com/2020/03/11/cinde-koronavirus-karantinasinda-kalan-ciftlerde-bosanma-basvurular-ve-aile-ici-siddet-art (04.05.2020)

Harari, Y. N. (2020). *Koronavirüs sonrası dünya* (Çev. Ö. Bozer). Retrieved from: https://www.adilmedya.com/yuval-noah-harari-koronavirus-sonrasi-dunya/ (20.05.2020)

Hürriyet. (2020). *Dünya Sağlık Örgütü: Kovid-19 uzun süre bizimle olacak*. Retrieved from: https://www.hurriyet.com.tr/dunya/dunya-saglik-orgutu-kovid-19-uzun-sure-bizimle-olacak-41509759 (05.05.2020)

Kluth, A. (2020). This Pandemic Will Lead to Social Revolutions. *Bloomberg*. Retrieved from: https://www.bloomberg.com/opinion/articles/2020-04-11/coronavirus-this-pandemic-will-lead-to-social-revolutions (07.05.2020)

Korkmaz, H. (2020). Kovid-19 salgını: ABD-Çin rekabeti propaganda savaşına dönüşüyor. *Anadolu Ajans*. Retrieved from: https://www.aa.com.tr/tr/analiz/-kovid-19-salgini-abd-cin-rekabeti-propaganda-savasina-donusuyor/1777227 (05.05.2020)

Milliyet. (2020). *Son dakika: İşte 'Yeni hayat' rehberi! Okul, hastane, otobüs, uçak, AVM, sokaklar...* Retrieved from: https://www.milliyet.com.tr/galeri/yeni-hayat-rehberi-yayinlandi-okul-hastane-otobus-ucak-avm-sokaklar-6207964/8 (06.05.2020)

NTV. (2020a). *İnsanlık tarihini etkileyen 10 pandemi*. Retrieved from: https://www.ntv.com.tr/galeri/dunya/insanlik-tarihini-etkileyen-10-pandemi,IUMSBOR3OUeCevZRr3lJeQ/pg9MwdyFuEe_Xxzt_zc61A (15.05.2020)

NTV. (2020b). "Corona virüs kalıcı olabilir". Retrieved from: https://www.ntv.com.tr/dunya/corona-virus-kalici-olabilir,zR9mhHLWr0uzq-KD3Ja-Pw (15.05.2020)

Perspektif. (2020). *Korona Sonrası Dünya*. Retrieved from: https://www.perspektif.online/tr/odak/korona-sonrasi-dunya.html (20.05.2020)

Posta. (2020). *Karantinada neden daha fazla yiyoruz?*. Retrieved from: https://www.posta.com.tr/karantinada-neden-daha-fazla-yiyoruz-2248800 (07.05.2020)

Roser, M. (2020). *The Spanish Flu (1918-20): The Global Impact of the Largest Influenza Pandemic in History*. Retrieved from: https://ourworldindata.org/spanish-flu-largest-influenza-pandemic-in-history (08.05.2020)

Roy A. (2020). Bu salgın bize, kendimiz için yarattığımız kıyamet günü makinesini düşünme şansı veriyor, hiçbir şey normale dönmekten daha kötü olamaz. *Medyascope*. Retrieved from: https://medyascope.tv/2020/04/05/arundhati-roy-bu-salgin-bize-kendimiz-icin-yarattigimiz-kiyamet-gunu-makinesini-dusunme-sansi-veriyor-hicbir-sey-normale-donmekten-daha-kotu-olamaz/ (05.05.2020)

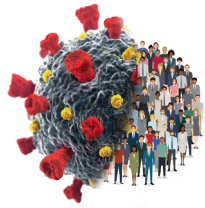
Turan İ. (2020). Pandemi sonrası dünyayı düşünmek: Aklın emrettiği. *Fikir Turu.* Retrieved from: https://fikirturu.com/jeo-strateji/pandemi-sonrasi-dunyayi-dusunmek-aklin-emrettigi/ (09.05.2020)

Türkiye. (2020). *Uzmanlara göre pandemi sonrası dünyada liberal değerler gerileyebilir.* Retrieved from: https://www.turkiyegazetesi.com.tr/dunya/700346.aspx (15.05.2020)

Türkiye Psikiyatri Derneği – TPD (2020). *COVID-19 ve Ruh Sağlığı*. Retrieved from: https://psikiyatri.org.tr/menu/161/cov%C4%B1d-19-ve-ruh-sagligi (05.05.2020)

Yener, D. & Karaaslan, Y. (2020). Sağlık Bakanı Koca: Yeni dönem 'kontrollü sosyal hayat'tır. *Anadolu Ajans*. Retrieved from: https://www.aa.com.tr/tr/koronavirus/saglik-bakani-koca-yeni-donem-kontrollu-sosyal-hayattir/1831309 (06.05.2020)

Yürük, B. (2020). BM Kovid-19 salgınının akıl sağlığına etkileri konusunda uyardı. *Anadolu Ajans*. Retrieved from: https://www.aa.com.tr/tr/koronavirus/bm-kovid-19-salgininin-akil-sagligina-etkileri-konusunda-uyardi-/1840163 (14.05.2020)



Technology and Human Condition after COVID-19

Mehmet Emin Babacan

Assoc. Prof. Mehmet Emin Babacan

Assoc. Prof. Mehmet Emin Babacan received his master degree at Çanakkale Onsekiz Mart University in 2009. He completed his doctorate in 2012 at the Sakarya University with his thesis titled "Social Capital Practices in Social Sharing Networks". The interests of the author are communication sociology, new media, social media, social capital, social movements. He was a visiting scholar at the University of Wisconsin-Madison in the USA for one year in 2014-2015. He is still teaching at Ibn Haldun University, Faculty of Communication as faculty member. As well as Dr. Babacan has articles in different refereed journals and compilation books and national/international papers presented. He has also an authored book (Social Media and Youth).

Technology and Human Condition after COVID-19[1]

Mehmet Emin Babacan
İbn Haldun University
emin.babacan@ihu.edu.tr

Abstract
In the modern period, the bidirectional relationship between machine and human self can roughly be understood by dividing it into three periods. The first phase of these three periods corresponds to the process that started after the Enlightenment and came to a head as the Industrial Revolution. The second stage of the process was experienced at the 20th century, when modern urban life has been established, nation states emerged and determined political systems, and capitalism was cherished as the end of history. The last stage of this period includes technology such as artificial intelligence, genetics, robotics, bioengineering, and that is related to the existential situation of people, which has changed and will continue to change the character of everything once again through internet technology, in particular.

It should be stated that the threat of new Coronavirus (COVID-19), which has recently locked social life on a global scale, secluded all humanity into their homes, and isolated the human self, from everything, and evoked a dystopia in all its dimensions, constitutes an important divergence between machine-human nexus. Since with the technologies developed recently in the context of machine-human relationship, the existing state of the human in the universe has begun to be discussed intensely, and a hybrid universe design with heavily compacted technology in the center has emerged. In this regard, COVID-19 should be recognized as an important sign in machine-human relations, with its dimensions that minimize existing human relations and transfer all areas of individual and social life to technological sphere, which, in return, trigger a process that can be called the end of the world as we know it.

Keywords
COVID-19, technology, human, new normal period

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

In the modern era, the machine-human adventure can be understood by roughly dividing into three eras. As the first phase of these three eras, it can be stated that the process took start after the Enlightenment was the era peaked along with the Industrial Revolution. The second phase of the process can now be materialized as the 20th century during when the modern urban life took shape, nation states emerged and determined the political systems, and the capitalism was characterized in a concrete way. As the last phase of the process, it can be stated that it is a phase that changed again and will continue to change the character of everything particularly pre- and post-internet technology era, that includes artificial intelligence, genetics, robotics, bioengineering, etc. technologies, and that is more related to the existential status of the humanity. In this sense, the effort to understand by dividing into three eras refers to the content difference of these technological developments and the meaning attributed to these technologies in question.

There is a significant difference in terms of nature between the technique developed in post-Enlightenment era and the technology developed in the 20th century (particularly the communication technologies). Likewise, there is a difference in terms of nature between the technology that was developed in the past century and still available to a great extent and the technologies that are in development in the last era and accommodating artificial intelligence, genetics, robotics, bioengineering, etc. The first era was considered as a legitimacy tool for the human willing to establish an authority within the machine or technical universe, and mainly served to facilitate the human life in that era. As the 20th century came, it was recognized that it is a tool allowing the human turn to himself by changing the nature of the technology and enabling the use as a tool for manipulating the human. Along with the

development of the mass communication tools in particular, the potentials of both individual and mass impact revealed. In this sense, the tools of mass communication sometimes functioned as the legitimacy tool of the political systems, sometimes the consent tool of the capitalism, and sometimes the information tool of the human. However, with the technologies developed at the end of the 20th century and in this first quarter of the 21st century, it is seen that the machine-human relation changed its nature once again. In this sense, it should be identified that the technology developed in the last era has a character that causes a crisis in the existential status of the human within the universe, and transforming the human into anything by taking him out of his current position.

The nature that is changing in every era as directly proportionate to the development of the technology changes the whole human and community relations again and again. However, the most significant difference of nature in the era that as referred as third era above and accommodating the today's technological developments is, without any doubt, the existential status of the human. In other words, it is the miserable state of God being banned from the centre of the universe in the post-Enlightenment era and the human who substituted the nature being the design of God and transformed into a simple *thing* in the universe then by being reversed again and again. In the first era, merely from a man to whom a Godship was attributed; to a manipulable, steerable man; from there to a man whose impotence, simplicity and mediocrity are seen as an ever-mounting concern and for whom the death warrant was signed...

It should be expressed that Coronavirus (COVID-19) threat that has recently ended the social life on a global scale, locked all human beings in their home, isolated the human being at the centre of life from everything, and caused the experience of a dystopia in all its dimensions is an important turnout in machine-human relations. Because, with the technologies developed in the last era being mentioned as the third phase in terms of machine-human relationship, the existential state of the human in the universe started to be discussed, and a hybrid universe design where more technology rather than human is in the centre has emerged. In this regard, COVID-19 should be read as an important station in machine-human relations through the triggering of a process that can be referred as the end of civilization as we know it with its dimensions that minimizes the existing human relations and that transfers all areas of human and communal life to technology. In this sense, it should be discussed whether we will witness the existential crisis and the resilience of the human in the machine-human relationship in the post-COVID-19 period, or rather remembering the existential position of the human in the universe.

Development of Technique and State of Human in Post-Enlightenment Era

The adventure of all the concepts and institutions of the modern world formed after the idea of enlightenment should be read in parallel with the

development progress of the tool, technique, machine and the advanced technology. Because the success of the human rationality that is located at the centre of the enlightenment idea required the automatization of everything by isolating from its metaphysical dimension by causing a crisis of legitimacy for this universe - the design of God - and everything in it. And doing this required to make everything as concrete as possible and to be visibly presented. In this sense, on one hand, the concrete experimental developments in nature and science were applied for human and society, and on the other hand, attention was given to the development of technique-mechanics in terms of materializing the experienced change on the rational ground.

It seems possible to depict the modern era and to read the new state of the human and community form within the epistemological boundaries of many different disciplines. However, the perspective of reading the essential spirit and character of the modern era on the technical-mechanical ground becomes more of an issue in terms of understanding today. In this sense, George Frankl (2003: 198) summarizes the status of human against the technique-mechanic in the modern era with the following statements:

> *"The mankind who reflected his self, which he formed by inheriting from his family first, then the role, aims, acts of his 'father' (God) in this world, as well as his own idealized narcissistic power and greatness fantasies for thousands of years, to the skies as an almighty God, then took his own identity sense from God, destroyed the god that is vanishing into the skies; and it is observed that the new mechanic system - an apparatus resembling a machine, dominates the world and the destiny of human beings."*

Enlightenment idea and subsequently formed ecosystem can be summarized as taking the sovereignty of the universe and its contents designed by God from God and giving it to the man. In other words, it can be understood as by killing the God, his decisiveness and dominance on earth is finished and this power is granted to the man. In this respect, this universe that is now in the centre of man had to operate differently from the Divine order. This new universe where the man is at the centre and the civilization formed in this universe had to be materialized within a technical-mechanical framework. Because, along with the development of the technical-mechanical power, the humanity was achieving concrete successes and these achievements again were requiring how the technique-mechanics would be developed more. Because "the most basic difference between a machine and a vehicle lies in the degree of being independent from the skill and actuating force of the operator during operation process; the vehicle itself allows its control, and the machine allows automatic action" (Mumford, 2017: 22). In this respect, witnessed from the tools used with human labour in the traditional period to the emergence of the machine that takes an automatic form of action beyond the human labour, even thousands of times of its strength. Thus, the existence ground of the technical-mechanical civilization continued from vehicle to machine, from machine to technology, from technology to artificial intelligence technology.

Essentially, the reason of all these technical-mechanical developments is not only facilitating the human life, but also providing a Divine power to the man that he had not experienced in this universe before. But, the "status of human" always remained as a fundamental question in all phases and transitions.

The 'machine' that is located in the centre of the civilization with technical-mechanical character of the modern era was appearing as a distinctive sign showing that everything will progress in a different manner as of that day through causing legitimacy crisis for the all accumulation of humanity until that date. The moment that the *machine* adds to human and human power has reinforced the central role of the machine in all areas in the modern era. But at the same time, the status of the human against the development and central role of the machine, and more beyond, what happened to the *human* started to be questioned in a parallel manner.

> *"We approach these machines with an ambiguity mixed with fear; on one side, these machines give us a great sense of satisfaction, on the other side, they make us encounter with a danger never seen before in the history of humanity. The thing that gives this weird and scary power owned by these machines is not only the fact that these machines have unlimited power and capacity of destruction; but also the fact that they have the capacity to make their own decisions. We have now fallen into the trap of the logic of the machines; the machines follow the rules they set, and we feel that we have to resign ourselves to these." (Frankl, 2003: 216)*

The depicted machines in question are the technologies that have the character of post-Industrial Revolution era more. This determination that was made by Frankl concerning the technologies of this first era can be read as a very advanced interpretation for that era when the artificial intelligence technology of today is taken into consideration. But eventually, the determination of Frankl concerning the human and technology points to today more since the technological developments are the processes that progress by completing and developing each other.

The detection of George Frankl is not just limited to this. At the same time, which is also the claim of this study, his detection concerning the regression of the man today in terms of existence against the technology, being the effort/product of the rational mind, carries great importance; "The throne of the humankind, who is the representative of the Gods, to whom mind, intelligence, foresight and imagination power has been granted, is the king of the creatures, friend and protector of the earth, is shaking; the humankind is encountering the danger to lose his power and entrap his mind to the machines he made (2003: 216). Because, the establishment of an order by the human - the owner of mind, will and conscious - through being at the centre of the universe and ensuring all technical-mechanical development required for this order in question were also within the priority of the Enlightenment idea. But, over time, the technical-mechanical development that has a fundamental

philosophy of for human and where the human is at the centre started to take a position despite the man and against the man. It should be stated that this change of technique/technology over the time, in other words, the quality of being for human to being against human, fundamentally caused due to the positioning of the man within his own existence universe. In other words, the dialectical relationship of modern man with the technique and technology has evolved over the time and turned into an opposition that took himself in. In this sense, the idea of controlling the universe, possessing the power, being a man who can afford everything and overcome everything has weakened the thinking and acting capabilities of the man over the time and made him dependent on the technique/technology.

With a simple expression, the dependence of the man to the technique/technology does not mean getting used to the ease of use of any vehicle. Essentially means the entrance of the man into an impact that deeply shakes his mental and intellectual efforts, religious and moral quests, and spiritual and psychological meaning efforts. In this respect, the presence of the technique/technology at the centre of this wide ecosystem that surrounds the man with his everything will, after a while, necessarily bring the establishment of a dependency relationship with that and the acceptance of it as the most concrete indicator of civilization by glorifying it. Lewis Mumford (2017: 62), one of the most important philosophers of the 20th century, expresses this situation as follows; "mechanical inventions are the answers given to a belief that is losing power and shrinking more and more even more dominantly than science and a stumbling life impulse." Mumford continues and summarizes the machine-human relation as follows:

> *"Due to the living and dynamic nature of the machines, they act as a self-fulfilling religion. Because now 'living means working' for the mankind. Indeed, what kind of other life do the machines know? Belief eventually found a new object, directed to the movement of engines and machines, instead of the motion of the mountains. Power, the application of the force to the motion and the application of the motion to production and the application of the production to earning money, and therefore the increase of power even more This has become the most valuable object that is put by the mechanical mind habits and mechanical action form in front of the humankind. As everyone can remember, this new technique has brought hundreds of useful tools together; but since the 17th century, the machine indeed played the role of a substitute religion, and a religion having a vitality does not need simple things such as useful devices to justify itself."*

In contrast to an understanding of universe where the human and human determination are at the centre; a new religion, to which Divinity has been attributed for its power/potential, emerged by virtually blessing the machine-technique. This new religion in question had a character that made the man dependent on the machine by largely eliminating the mental and intellectual efforts, ancient religious and moral quests, spiritual and psychological efforts.

In this respect, the existential crisis in question experienced by the man against the machine-technique points out the initiation of the withdrawal process of his founder role at the core of the life. The constant meaning attribution of the man, who is experiencing an existential meaning crisis, to the machine-technique, and blessing and glorifying it continues in a dialectical manner.

Development of Technology and Status of Human in 20th Century

The second main stop of the existential crisis in question experienced by the human against the machine-technique during the process took start after the Enlightenment is experienced following the intensive inclusion of the mass communication tools/technologies, in particular, into the human and communal life. The carrying power of the information, which is the fundamental mortar of the modernity now being materialized with its concepts and theories in this century, was, without any doubt, the mass communication tools. The communication technologies were the fundamental carrier of information in all other individual and social relations from individual to the state, from political parties to the political systems, from market to marketplace.

The mass communication technologies are not only the fundamental carrier of information in this era, but, at the same time, played a successful role during the course of the First and Second World Wars, in the propaganda activities of the political parties, being the tool of legitimacy of nation states, being the locomotive of the consumption and capitalism, and many other areas. The mass communication technologies had important function in terms of being a common denominator for the information required in the intersecting lives of millions of people who do not know each other, particularly in large-sized industrial cities emerged after the Industrial Revolution. In this respect, the communication technologies have become an inevitable element of the modern communal system for everyone. However, in addition to this, acted as the most important tool of the social engineering; the production, consumption and capitalism relations; and the propaganda, advertising and public relations world. The essential thing in all these processes is the design of a *mass* that is consisted of the individuals (Gasset, 2010) and the continuous creation of the *consent* of this designed mass (Herman & Chomsky, 2012).

The existential crisis experienced by the human after the Enlightenment continues by being deepened with the mass communication technologies in the 20th century. Because mass communication technologies have been the carrier of the fundamental character of this century, such as the consideration and design of the human as a *thing* that can be removed and reassembled, the transformation of every authentic thing owned into an industrial product, and interpreting the human fundamentally in the axis of production-consumption. In this era, the general understanding can be summarized as; "each effort to benefit from everything existing other than human is an industrial, worthwhile effort," (Veblen, 2005: 24). An effort where the human is at the centre can only be meaningful in the context of production, consumption and working.

Because in a post-traditional modern society; "in a society that evaluates and accordingly rewards its members according to their preference talents and initiatives; *working* was at the centre of the lifelong formation and protection of man's identity" (Bauman, 1999: 31).

The cycle of working, production, and consumption where the modern man is kept as equal to existence philosophically leads man to the meaning crisis. The solution of the experienced meaninglessness is more continuous and regeneration of the working, production and consumption cycle by means of communication technologies. With following statements, Guy Debord (2010: 52) summarizes that everything is rendered as an object of *show* in an ecosystem surrounded with communication technologies and that the show essentially means the commodifying the man and what belongs to him; "Show is the moment when the commodity manages to occupy the social life completely. What is visible is not only the relationship established with the commodity, but nothing else can be seen; the world seen is the world of the commodity."

In this second phase where the man loses the subject-object relationship in his relationship established with the commodity, the process of commodification by making everything visible by means of communication technologies and therefore detaching everything from its essence is experienced in a painful way. Make everything visible and commodify them in this ecosystem where the man is surrounded by all psychological, ideological, sociological and aesthetic aspects by means of communication technologies. The fundamental triangulation point of commodification is the simultaneous experience of the process on the evaporation of the meaning related to man himself and his existential status. It is the enjoyment of freedom in a restricted world within the boundaries of designed thinking and life practices of a world presented to him. Timoty Bewes (2017: 24) tries to explain this existential crisis in question by using the term 'reification' as an expression of abstraction in his capitalism critique. "*Reification* is the process itself where *being a thing* becomes the criterion of objective reality, in other words, where the given world is accepted as the truth of this world". The transformation of this world to some*thing* for man now means that the man is experiencing an existential withdrawal as a being having mind, will and consciousness.

In such a phase where man is experiencing an existential withdrawal through the communication technologies, Max Horkheimer (2010: 146) states that "the way to seize the social power passes from establishing the power over the objects and this relationship in question is more prominent than ever at that time." And by continuing, he expresses the following important determination by focusing on the relationship of man with the object/commodity; "the more intense the desire of the man to establish power over the commodity, the heavier the domination of the commodity on him and the man gets further away from the real individual characteristics, and his mind gradually turns into a formal mental automate".

Briefly, it can be expressed that the man, who lived in a given world being mostly designed, in terms of psychological, ideological, sociological, aesthetic, etc., by the 20th century mass communication tools and the ecosystem that they created, got prepared for today (the era stated as third phase) through both mentally and with life practices. In this respect, the existential withdrawal of the man and the infinite continuation of his relation established with the technology as an effort for overcoming the crisis of meaning were always important. Because, as a mind, will and conscious owner creature, the failure of the man to exhibit a performance in compliance with his existential reality has led the attribution of meaning to the technology in each and every day.

Development of Technology in 21.Century: COVID-19 and Status of Humankind

In the last era, as a philosophy of the existential withdrawal of the man against the technique/technology, the conceptualizations more likely such as *posthuman*, *transhuman,* etc. bring everything regarding the ancient accumulation of the humanity, such as the man himself, individual, community, state, justice, freedom, etc., into question and even tries to eliminate them. Recently, this is even referred to as the end of *homo sapiens* in one of the most debated works of art of Yuval Noah Harari (2017: 388). In his claim, Harari may equipped the natural selection *homo sapiens* with a play area bigger than all other organisms, but this area also has borders. The implication here is, regardless from the efforts and achievements, that it is not possible to get out of the borders biologically determined for *homo sapiens*. This is no longer valid at the dawn of the 21st century. *Homo sapiens* cross these borders and by eliminating the laws of natural selection, and completing this instead by putting his own smart design.

The thing that should be stated just here is that the discussions carried out around these concepts in question are far beyond the *scientific progress* or *technological development* dimension. Such as the scientific development or technological development, the subject should be recognized with its existential and moral dimensions in the basis of 'machine-human' relations beyond the phenomenon coming today through more positive meaning attribution and even accepted as holy. Therefore, although both the *posthuman* and *trans-human* thoughts are theoretically different from each other, they define themselves over the presence and centricity of the technology. Because "The machines belonging to the end of the 20th century ambiguated the difference between the natural and artificial, mind and body, self-developing and designed, many other distinctions between organisms and machines. While our machines are irritatingly vibrant, we are scarily inert" (Haraway, 2010: 50). But the main point here is the necessity to see that the historical role of the man materialized in the lines of both Harari and Haraway is eliminated as a creature having mind, will and consciousness. By acting from here, it can be said that; how the situation of *man* and the status of man will be positioned against this approach

that brings the man and his existential background in question against the technology, likewise reduces the man to any*thing* in the world of existence and atomizes the truth in every way.

In this third phase where the man, truth, authentic, culture and almost everything are atomized against the technology and the meaning concerning everything is attributed to the technology, a development that will cause the man be in limb once again is experienced. With the threat of COVID-19 (coronavirus), the whole humanity is necessarily isolated from everything, however awakened to an era where he has to live with technology. As a development that can be evaluated as the end of civilization as we know and experience it, the existential situation of man during and after COVID-19 period against the technology has started to be discussed once again. In this sense, it is a subject of discussion about what/where the human accumulation, which is tried to be summarized under two previous topics and which the humanity managed to carry to today in somehow although both of the phases experienced after the Enlightenment, will be evolved to in this new era in question.

It is thought that hereinafter the discussion on the existential status of the man against the technology during and after COVID-19 period will have two fundamental themes. One of these is; in addition to two fundamental post-Enlightenment topics summarized above, it is the existential withdrawal adventure of man who peaked with the *posthuman*, *transhuman* discussions to be summarized here. The other one is; a perspective that will reveal an approach accepting that man, commodity and therefore the universe is still the work of art of a Divine design despite all the experiences, and position the man in accordance with his existential position.

Post-humanism (post-human) and Trans-humanism (Beyond Human) Concepts

Omitting everything that belong to the man and the universe through accepting them as divine design during the Enlightenment era, instead redesigning everything by centring the mind can be stated as the fundamental postulates of humanism. Indeed it is killing God and his design, and putting the man at the centre and leaving everything to the design of human.

> *"The Enlightenment defined the Universe and its contents as an explanation process without relying on theological principles and making attributions, as humanism that is reached by claims such as the extraction of matter first and then man from meaning, and the man as an autonomous, fully determined individual with free will. With the theory of evolution, saw the man as a function of the Universe and emphasized that he had no privileged position. Subjecting the entire reality to a 'relational' reading, humanism perceived the man as a node of this relational network" (Fazlıoğlu, 2020).*

Today, with *posthumanizm* discussions, the *essential* central role and sovereignty of the man once again brought in question in a stronger manner, and indeed, a philosophical ground has started to be formed for the sovereignty of the machine and technology.

> *"Humanism set off by rejecting God; and Trans-humanism wants to continue by rejecting the man. Because, in terms of this thought, like 'God', 'man' also exists as long as we, the humans, believe in their existence. Trans-humanism does not want to see the man as a pure function of DNA by defining him according to an essential nature that is an illusion of modernism/humanism. Because material nature has turned into a cultural/spiritual nature with consciousness. However, the consciousness cannot be limited; it is dynamic, open to development; tries to overcome itself through man. For this reason, wants to continue its evolution with technology, the cultural/spiritual production. There is no meta-person or meta-criterion to limit evolution. Homo-sapiens will/must evolve to homo-deus over homo-cybernetics" (Fazlıoğlu, 2020).*

The importance attributed by the humanist thought to the human and human mind has been existentially shaken by the *post-humanism* thought, and redefines the position of man against the machine and technology. In this sense:

> "Post-humanist thinkers, by means of the digital technologies, think that information has lost its body, has turned into an intangible structure, and an artificial life that tries to imitate life as it is has emerged. *They say they distinguish the real vitality and artificial vitality. They conceptualize the mind as a universal symbol processor. They agree that the mind and computer share some common mechanisms of functioning, although they are not exactly the same. Nature-culture, human-animal, human-machine, life-game, female-male distinctions are false according to them, they want to overcome all" (Göka, 2017: 46).*

In the post-humanism literature, there are very different definitions and forms related to the concept, but its frame has been formed through the criticizing of humanism, positivism, colonialism, modernism and many other social theories representing the post-Enlightenment accumulation (see Ferrando, 2013, Cabrera, 2015, Sharon, 2014). In this sense, the posthumanist and transhumanist, by deconstructing the Enlightenment approach that positions the human in the central role as the subject, point out that technology can exhibit a performance beyond a human during the post-human era. He argues that genetics, robots, chips and other artificial intelligence elements can design much more than the world designed by human.

> *"According to posthumanist thinkers, there are no fundamental differences or absolute boundaries between the physical existence and computer simulation, cybernetic mechanism and biological organism, robotic teleology, and human goals Now nothing can convincingly reveal the differentiation between the human and animal... At the end of the 20th century, the machines completely*

> *made many other distinctions applied to the organisms and machines, such as natural and artificial, mind and body, self-developing and externally designed distinctions, blurred.* While our machines are irritatingly vibrant, we are scarily inert" *(Kara, 2014: 68).*

And briefly the trans-humanism is an approach arguing going beyond the current biological existence and boundedness of the human by means of science and technology. This definition is clearly expressed in two articles provided in Nick Bostrom's *Transhumanist Values* in 2011.

> 1. *Humanity is in a place that will be deeply affected by science and technology in the future. We anticipate that ageing, cognitive restrictions, involuntary suffering, and expansion of the human potential by overcoming our imprisonment in the third rock from the sun are within the possibility.*
>
> 2. *We believe that the potential of humanity is still largely unrealized. There are possible scenarios that can lead to extraordinary and extremely important improvements in the status of the human" (Kara, 2014: 57-58).*

Post-humanism and trans-humanism discussions form an extremely wide philosophy, intellectual literature. Since it will exceed the boundedness of our study, it is not possible to evaluate all discussions and dimensions in question. Along with this, opening the existential position of the human in the universe once again and even in a stronger manner for discussion and also imputing the entire meaning to the technology, the post-humanism and trans-humanism philosophical thesis should be discussed vigorously. The legitimacy of adiaphory to take the human and the entire accumulation of the humanity into brackets with an approach having its own rightfulness and righteousness should be questioned. It is an inevitable obligation to discuss the perception that a good ground and legitimacy is provided for the dominance of the chips, implants, artificial intelligence robots and other technologies within the life of the human particularly by means of recent social life closures due to COVID-19 and the sentencing of the entire humanity to technology somehow (Chadwick & Wasserman, 2020).

The thought that God was killed after the Enlightenment and everything, which was his design, now is realized by the mind and hand of the human expands to going beyond the human with post-humanism and trans-humanism discussions today, and even the killing of the human. The essential emphasize of such topics that are focusing on understanding the machine-technology adventure of the human in three main eras is briefly the fact that the human has sentenced himself to machine-technique and technology at the end of the day in all his efforts concerning the interpretation, overcoming, building, etc. in this world designed by him. The most concrete example of this case is summarized with the following expressions by Erol Göka who points out the existential crisis concerning the human himself and the life he experiences over the technologies developed recently.

> *"The developments that are revealed recently in the engineering sciences, information technologies and bio-technology have come to a level to allow some to say that the natural characteristics of the human have been exceeded, and the previous human and related humanity expression have come to an end. No utopia we dreamed of during the modern times came true. A 'blood-thirsty' new world that is not brave as expected and where trans-humanism and post-humanism are mentioned instead human has emerged (Göka 2017: 27).*

Constituting the foundation of the study in terms of machine-human relation and each tried to be summarized briefly, the three eras can be summarized as the digitalization, commoditization, evaporation of the human/the meaning and reality belonging to the human against the developing technique-technology. Likewise, it can be summarized as the attribution of all these meanings to the technology by being abstracting from the human through even going beyond many notions such as freedom, individuality, human rights, ethics, etc. that are the fundamental outputs of the own rationalism of the humankind in this era.

Conclusion

The nature that is changing in every era as directly proportionate to the development of the technology changes the whole human and community relations again and again. The most important matter in such relation; is the state of God being banned from the centre of the universe in the post-Enlightenment era and the human who substituted the nature being the design of God and transformed into a simple *thing* in the universe then by being reversed again and again. In the first era, merely from a man to whom a Godship was attributed; to a manipulable, steerable man; from there to a man whose impotence, simplicity and mediocrity are seen as an ever-mounting concern and for whom the death warrant was signed...

> *"The desperation feeling of the modern human due to the permanent crisis forces him to glorify and bless the machine which he sees as the precursor of the new civilization. In places where humankind fails to fulfil the requirements of civilization, it is perceived that it is inevitable for the machine to replace the human. However, we should never ignore that the new gods, at the intellectual level, represent a childlike and low-level line of reasoning that is very similar to a little child's reasoning skills. These new lines of mind and reasoning that are emerging are both intellectually (mentally) and spiritually return to a childlike sensitivity and world" (Frankl, 2003: 217).*

The thing that is desired to be emphasized throughout the entire article where the machine-human relation is tried to be summarized can be summarized as 'the childlike attitude of the human towards the technology by attributing meaning to it to overcome the crisis of meaning and the existential withdrawal experienced later.'

How this entire background concerning the machine-human adventure shaped the perceptions during and after COVID-19 will become clearer over the time. In addition to this, the machine-human adventure that is summarized up to here should be evaluated by bracketing in the discussions on how the life of the human and community will be and how it will be shaped after COVID-19. And it should be emphasized that the discussion on the existential status of the human against the technology at least during and after COVID-19 period should be carried out under two fundamental themes. Along with the adventure of the existential withdrawal of the human who peaked with the post-humanism and trans-humanism discussions in the last era of the machine-human adventure; these themes in question should be the perspective of an approach that recognizes the human, commodity and therefore the universe are divine designs and that positions the human in accordance with his existential position.

The life promised by post-humanism and trans-humanism, which accordingly take their accuracy, rightfulness and legitimacy significantly from the development of the technique-technology and impose this to the humanity in a form derived from them, should be discussed with all dimensions. Because, it should be discussed whether such a mind thinking that it killed the God first, and now attempting to kill the humankind can offer anything to the humankind in a universe where God has not died and the divine order continues to progress despite everything. İhsan Fazlıoğlu (2020) summarizes this as following; "in other words, we should writing a new story; because criticizing the internal structure of an existing story enhances that story and enables it to become more refined." A discussion must be carried out around how the paradigm that started after the Enlightenment and reached peak with post-humanism and trans-humanism today sentenced the human with an existential poverty towards the machine, technique and technology, and writing a new story should be in quest.

Kaynakça

Bauman, Z. (1999). *Çalışma, Tüketicilik ve Yeni Yoksullar*, Çev. Ümit Öktem, İstanbul: Sarmal Yayınları.

Bewes, T. (2017). *Şeyleşme; Geç Kapitalizmde Endişe*, Çev. Deniz Soysal, İstanbul: Metis Yayınları.

Cabrera, L., Y. (2015). *Rethinking Human Enhancement; Social Enhancement and Emergent Technologies*, Palgrave Macmillan.

Chadwick, L., & Wasserman, R. (2020). Avrupa'nın geleceği mikroçip implantlarda mı?. *Euronews*. Retrieved from: https://tr.euronews.com/2020/05/14/avrupa-nin-gelecegi-mikrocip-implantlarda-mi-isvec-inovasyon-teknoloji-saglik-bilim-kurgu (14.05.2020)

Debord, G. (2010). *Gösteri Toplumu*, Çev. Ayşen Ekmekçi- Okşan Taşkent, İstanbul: Ayrıntı Yayınları.

Fazlıoğlu, İ. (2020). İnsan'ın Geleceği: Telaşa Gerek Yok, Hepimiz Öleceğiz!. Retrieved from: http://blog.ilem.org.tr/wp-content/uploads/2020/05/I%CC%87LEM-COVID-19-Dosyas%C4%B1-1.pdf (15.05.2020)

Ferrando, F. (2013). Posthumanism, Transhumanism, Antihumanism, Metahumanism and New Materialisms: Differences and Relations, *An International Journal in Philosophy, Religion, Politics and Arts*, 8(2), 26-32.

Frankl, G. (2003). *Batı Uygarlığı*, Çev. Yusuf Kaplan, İstanbul: Açılım Kitap.

Gasset, J. O. (2010). *Kitlelerin Ayaklanması*, Çev. Neyyire Gül Işık, İstanbul: Türkiye İş Bankası Kültür Yayınları.

Göka, E. (2017). *İnternet ve Psikolojimiz*, İstanbul: Kapı Yayınları.

Harari, Y., N. (2017). *Hayvanlardan Tanrılara: Sapiens İnsan Türünün Kısa Bir tarihi*, Çev. Ertuğrul Genç, İstanbul: Kolektif Yayınları.

Haraway, D. (2010). *Başka Yer: Donna Haraway'den Seçme Yazılar*, Çev. Güçsal Pusar, İstanbul: Metis Yayınları.

Kara, U.Y. (2014). *Kimlik Oyunu: Video Oyunları*, Yeni Medya ve Kimlik, İstanbul: İletişim Yayınları.

Herman, S. & Chomsky, N. (2012). *Rızanın İmalatı: Kitle Medyasının Ekonomi Politiği*, Çev. Ender Abadoğlu, İstanbul: Bgst Yayınları.

Horkheimer, M. (2010). *Akıl Tutulması*, Çev. Orhan Koçak, İstanbul: Metis Yayınları

Mumford. L. (2017). *Teknik ve Uygarlık*, Çev: Emre Can Ercan, İstanbul: Açılım Kitap.

Sharon, T. (2014). *Human Nature in An Age of Biotechnology; The Case for Mediated Posthumanism*, Springer.

Veblen, T. (2005). *Aylak Sınıfın Teorisi*, Çev. Zeynep Gültekin-Cumhur Atay, İstanbul: Babil Yayınları.



Attitudes to the Global Pandemic from the Standpoint of Moral Philosophy

Bilal Kuşpınar

Prof. Bilal Kuşpınar

Prof. Bilal Kuşpınar received his B.A. in theology from Selçuk University, Konya, his M.A. in philosophy, logic and history of science from the Middle East Technical University (METU), Ankara, his first Ph.D. in the history of Islamic philosophy from Selçuk University, and his second Ph.D. in philosophy and mysticism from McGill University, Canada. His research investigates into various philosophical and mystical traditions of Islamic civilization. He taught at several universities, including Selcuk University, International Institute of Islamic Thought and Civilization (ISTAC), Kuala Lumpur, and Concordia and McGill Universities, Montreal, and Ahlia University, Bahrain. He has published many articles and books in his field. Among his books are: *The Lamp of Mysteries: A Commentary on the Light-Verse of the Qur'an*. (Oxford, 2011) *Ismāʿīl* Ankaravī on the Illuminative Philosophy. (Kuala Lumpur, 1996). *Ibn Sina'da Bilgi Teorisi (Avicenna's Theory of Knowledge)*. (Istanbul 2001). Ed. *Mevlana ve İslam*. He is a member of the editorial board and international advisory committee of several academic journals in his field. While he was working as Professor of the history of Philosophy and the Dean of the Faculty of Social Sciences and Humanities, he was appointed in October 2019 as Counselor for Social and Religious Affairs, Turkish Embassy, Washington, D.C.

Attitudes to the Global Pandemic from the Standpoint of Moral Philosophy[1]

Bilal Kuşpınar
Presidency of Religious Affairs
bilal.kuspinar@diyanet.gov.tr

Abstract
There can be little doubt that scholars of the social sciences and humanities, as well as economists, will continue to debate for a long-time severe consequences and adverse effects of the Coronavirus epidemic on individuals as well as societies. This invisible and apparently invincible particle has mobilized the energies and expertise of natural scientists and health experts, while rendering world leaders helpless and desperate in the face of its devastating impact on social and economic life. The sudden appearance and rapid spread of this fatal virus has forced all nations to re-arrange and readjust their social and economic policies to conform with the dictates of *a new normal*. As individuals and societies struggle to conduct their daily affairs in the newly imposed conditions of the Coronavirus pandemic, they face tremendous challenges and difficulties in coping, on the one hand, with necessary and often severe restrictions and, on the other, with the fear and anxiety of uncertainty. Depending on their perception and understanding of this devastating *new normal*, people, organizations and societies display various attitudes and behaviors in this new situation. Some of them remain confident, strong and forward-looking, since they view this crisis as a test or a trial, which, they believe, can be overcome with perseverance. Others, however, see themselves as helpless victims, and the pandemic as a calamity, a punishment or even as "End Times", the advent of which, they fear, is unstoppable and uncontrollable. These different perceptions, behaviors and attitudes as exhibited by people in the course of the pandemic, as well as the possible consequences of these perceptions, behaviors and attitudes, will be evaluated in this paper from the standpoint of moral philosophy.

Keywords
Categorical imperative, COVID-19, end of time, ethics, herd immunity, new normalcy, pandemic, philosophy, prophecy, punishment, religion, self-isolation, science, spirituality, test, virtue

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Psychological, sociological and economic problems created by the Coronavirus epidemic, along with its terrible consequences, have already begun to appear at various forms and degrees throughout the world. It is clear that even if its spread is contained by an effective vaccine in the near future, its aftershocks will likely continue to be felt by many nations across the globe for a long time to come. At this early stage it is not possible to determine, in exact terms, the short and long-term, micro and macro level, physical and immaterial impacts of this virus in any given country with the probable exception of the number of persons infected and deaths, which have been regularly tabulated, though with imperfect accuracy, by several organizations.

There is much discussion about the negative effects of the virus, especially its devastating impact on economic and social life, ranging from massive unemployment to the weakening of the social fabric. It is very likely that many studies to be carried out in the natural and health sciences, as well as in the social sciences and humanities, will in future devote a separate chapter to the Coronavirus. Historians may well divide their works into two distinct periods: prior- and post-Coronavirus.

It is appropriate at this point to ask if the novel Coronavirus has ever done any good to anybody or, stated in more general terms, if it has made, or will make in the future, any *positive* impact on any society. Such a question, though it may sound strange and even appalling to many people, ought to be given serious thought and attention for several substantial reasons, which will be discussed in this paper. This question, in the first place, is addressed primarily to theologians and philosophers, particularly moral philosophers. Whatever the case, the effects of this Coronavirus epidemic, be they positive or negative, depend upon perceptions of the virus itself. Its possible impacts, in other words, will differ from one individual to another and from one nation to another, according to their respective worldviews, and especially their understanding of truth, the world, human beings themselves and life.

This essay approaches the topic mainly from the viewpoint of moral philosophy. As morality and religion are closely intertwined and complementary fields, it will first examine the views, opinions and comments of religious leaders and theologians concerning the virus in summary form.

Religious Leaders' Approaches to the COVID-19

The representatives of the major monotheistic religious traditions—Judaism, Christianity and Islam—residing in the United States of America have expressed diverse opinions on the Coronavirus outbreak and its "meaning." Not only are there noticeable differences among the opinions of the representatives of these three religious traditions. There are radical disagreements among the leaders of each of them. To make compelling arguments for the validity of their positions on the causes of and the reasons for the Coronavirus epidemic, mainstream religious leaders, who usually speak on behalf of their community, invoke their respective Scriptures, commentaries and other authoritative sources inherited from their historical and cultural legacies and re-interpret them in accordance with their individual reasoning in the light of contemporary circumstances.

By recalling certain verses of the Old Testament (e.g. Exodus 15:26), some Rabbis, for instance, have proclaimed that God has sent plagues and epidemics such as the current one as a divine punishment for the sins committed by people and hence His mercy and forgiveness should be sought. They have further declared that, as explained in the Talmud and its commentaries, exactly as in the past, today one should take all the required precautionary measures and strictly observe the rules and regulations stipulated by state authorities. In other words, today's Coronavirus outbreak, in the eyes of these Jewish leaders, is definitely a punishment from God who has deliberately sent it to punish mankind's misdeeds or transgressions. They are convinced that the crisis can be averted provided people implore God for Forgiveness and that it can be contained if all the necessary precautions and measures are duly implemented and followed. In this way, they have appealed to their communities to ask for the forgiveness and mercy of God and abide by the instructions and restrictions of the authorities in order to protect themselves from infection. Other influential Jewish leaders, however, have stated that since the time of Moses and Aaron, as recorded in historical Talmudic sources, the Jewish community has encountered many ordeals, disasters, plagues and hardships. These should not be viewed as Divine punishment, but rather as a warning. And for the sake of safety, these leaders have further suggested, synagogues should be closed and congregational rituals and services be suspended under current circumstances. Jewish history, after all, records several similar instances. Some other representatives of Judaism have approached the pandemic from the viewpoint of natural and health sciences and thus refrained from associating it with God. I have yet to encounter any scholarly published work or article that encompasses the full diversity of Jewish views and perspectives on the current crisis (Gilad, 2020).

The publicly expressed views of Christian religious leaders and theologians to the novel Coronavirus epidemic are quite similar to those of their Jewish counterparts. Exactly as in the case of Judaism, in Christianity, too, at least three distinct and identifiable groups express sharply differing views on the epidemic. One group proclaims that the virus is a manifestation of God's wrath and His punishment for sinners; another group believes it to be a warning and an admonition from God; the third group argues that since God is good and only good may proceed from Him, no such evil as the current virus, therefore, can ever emanate from Him nor even be linked with Him in any way. Though the official statement of the Vatican, the center of the Roman Catholic Church, explicitly states that "Coronavirus is not God's punishment, but our own self-punishment" there are others within the establishment those who appear to believe or state quite the opposite. The Pope, in his personal discourses gives the impression that he is more concerned with the social and economic consequences of the virus (Doody, 2020).

Perhaps the most interesting view of the virus emanating from self-declared Christians, appears have been expressed in a virtual book entitled *The Coronavirus in Biblical Prophecy*. In this unprinted work, the author asserts that the spread of the Coronavirus across the globe, as foreshadowed by some of the verses of the Bible (e.g. Matthew 24:7), is a conspicuous sign of God's 'punishment for a sinful world.' The author further adds to his claim by asserting that "the predictions of Jesus are once again proven to be accurate." (DeJesus, 2020; Kettley, 2020) Moreover, a prominent Evangelical holds that the Coronavirus is "a death angel sent by God to purge many sins" and "may be moving right now across the planet." It has originated in China, he proclaims, because that country's "godless communist government persecutes Christians and forces abortions" (Brown, 2020).

On the other hand, most Christian clergymen have flatly rejected these provocative positions and vehemently criticized the plausibility and appropriateness of Jesus' alleged predictions within the context of the current pandemic. They have also strongly repudiated the views expressed by certain religious leaders who believe the virus to be a means of divine punishment, and instead reiterated the commonly-circulated speculative theory that it must have emerged either as a result of carelessness or negligence among certain scientists who had been experimenting with this virus in laboratories located in the city of Wuhan, or because of human consumption of wild animals, mainly bats. Therefore, God, they have further promulgated, need not send a virus in order to inflict punishment on anyone or any nation in the world. Besides, God is "a Good God" and as such cannot be associated or cooperated in anything evil, which can only be attributed to the work of Satan (Scanlon, 2020).

In addition to the views enunciated by the Christian religious leaders on the subject of the Coronavirus, another striking opinion has been expressed by staunch Christian theologian Dr. Mark Hitchcock, whose yet unpublished work, thanks to his frequent interviews on media, has already captured the

attention of many members of his faith community in the United States. In introducing and advertising his work, *Corona Crisis: Plagues, Pandemics, and the Coming Apocalypse*, Dr. Hitchcock poses a crucial question, "The Coronavirus Pandemic, A Sign of End Times?" and then attempts to muster convincing arguments through his own reading of certain passages from the Bible of an apocalyptic nature to assert that the current outbreak reflects Biblical prophecies (Hitchcock, 2020). This kind of *theological* interpretation can and must be evaluated from the vantage point of moral philosophy.

One of the implications of Dr. Hitchcock's assertion is that the new pandemic should be seen as the herald or portent of Jesus' imminent return or "second coming." In some Christian religious circles, particularly on virtual platforms and in social media, articles, short and long articles, lectures and discussions have been published making similar predictions and prophecies, one of which, for instance, is entitled: "COVID-19 Novel Coronavirus: God's Blessing or Satan's Curse?" (Macneil, 2020)

By posing an ironical question, "Where is God in a pandemic?" and answering, "We don't know," a small group of Christian theologians, on the other hand, seems to have adopted a rather agnostic attitude. For, in their view, the hardships and grief brought about by natural disasters and diseases, which may be termed "*natural suffering*," are far different from the pains and trials brought about by the immoral actions and evildoings of people, which may be called *moral-evil suffering*. For this reason, illnesses, diseases and pandemics, such as the Coronavirus, they suggest, should be seen as a test of one's faith, patience and perseverance (Martin, 2020).

The perceptions and expositions of Muslim preachers and scholars on the Coronavirus epidemic appear, in terms of diversity and heterogeneity, to parallel those of Jewish and Christian leaders. Like their Jewish and Christian counterparts, Muslim religious authorities likewise display widely differing positions. Some strongly believe that of His own will God has purposely sent it as a punishment for His enemies, oppressors, transgressors, their allies and followers (US News, 2020). Others hold that the Coronavirus epidemic is a divine punishment intended to punish mankind because of its sinful acts and misdeeds. People should therefore return immediately to God by repenting for their evildoings and sins (Ali, 2020).

Still other Muslim religious scholars go farther still, in sermons in which they characterize the Coronavirus as "a soldier of God, sent to punish both the West and Muslims" because of their disobedience to Him. Other Muslim divines specify that the deadly virus erupted in China, because of God's decision to punish the Chinese for their inhuman treatment and persecution of Uighur Muslims. To make a convincing case they cite Scriptural references and prophetic stories that they relate to the present context, while assuring their audience that in the past God also sent similar chastisements in various forms to the people who had disobeyed Him. "A mosquito", for instance, He sent "to

kill Nimrod," and "the ten plagues He unleashed to punish the Egyptians." So, this deadly virus, like other past plagues, is a stern warning from God to humanity. The only solution, they claim, is to return to God and obey Him (Cohen, 2020).

The above views, drawn from sermons of a small number of Muslim clerics, all available on the internet, should better be seen as the reflection of the position of a very small group, which seems to have received little or no support or backing from the Muslim world's most influential religious leaders and spiritual representatives. Their narrow and radical opinions, on the contrary, have been severely criticized and categorically rejected by many, if not most, traditional Muslim scholars with substantial rational arguments, as well as persuasive textual evidence derived from the Qur'an and the Prophetic traditions known as the Sunna.

Based on their in-depth analysis and interpretation of these two primary sources, a majority of Muslim intellectuals and scholars have advanced a more plausible, justifiable and consistent position towards the issue of the Coronavirus, which in turn has been relatively well accepted and appreciated by most of their coreligionists. Accordingly, today's pandemic, COVID-19, like many other diseases and plagues in the past, must be viewed not as a punishment or as the wrath of God, but a sign, an indication, a trial and a lesson from Him. In other words, in the eyes of the overwhelming majority of Muslim religious leaders, to characterize the occurrence of this present pandemics and any other calamities as a punishment deliberately inflicted by God upon humanity would be not only a gross error, but also a baseless, if not blasphemous, allegation against God. Such a characterization would inadvertently trespass the boundaries of the human domain, step into the realm of God and assume the Latter's role and prerogatives, thereby acting on His behalf and speaking in His Name. Or, to say the least, to declare that the current outbreak is a punishment from God implicitly suggests foreknowledge of God's intention and will.

Moreover, argue Islam's mainstream scholars, to attribute the emergence of diseases and pandemics to a certain group of people or a nation, linking and correlating them with their sins, is as inconceivable as it is unjustifiable. For, as recorded in many religious Scriptures, Prophets, first and foremost the chosen people and messengers of God, were those who faced and experienced the most intense of hardships. When they encountered these difficulties and tribulations, they accepted them not as God's punishment, but rather as a test and a trial from Him and thus, without falling into despair, put their trust in Him and endured them with fortitude and perseverance, while encouraging their communities to take all necessary precautions and measures and remain faithful and hopeful. Besides, "a thing which appears bad or evil may turn good in the end," (Qur'an, *al-Baqara* 2:216) and "along with every difficulty there is ease and after every hardship, indeed there is comfort;" (Qur'an *al-Inshirah* 94: 5-6) "there is no disease that God has created, except that He has

also created its cure and treatment." (Hadith). In this case, then, the human being, as he has done in the case of other diseases, is expected to work hard and search for the cure. After all, "human being can only obtain what he strives for." (Qur'an *al-Najm* 53:39) (Kuşpınar, 2020a; 2020b; Görmez, 2020; Haque, 2020).

Thus far we have presented a summary of the views and perceptions of the representatives of the three great religious traditions, whose Scriptural roots are grounded in Divine revelation and whose genealogical history begins with their first common ancestor, Prophet Adam and converged with their common father, Prophet Abraham. At his specific juncture, there are two crucial observations to be made.

First, throughout history, not only the members of the three monotheistic religions, but also the members of all existing world religious traditions have faced, from time to time, hardships, difficulties and tribulations due to a number of unfortunate conditions, such as wars, forced migrations and exile. However, based on our investigation, we can state with relative certainty that at no time in human history have all of these religious traditions ever faced, together and simultaneously, a mortal threat as pervasive as that posed by the Coronavirus epidemic.

World history does not record if any similar crisis of such intense severity ever before befell all these religious communities at the same time and affected, even paralyzed, them all simultaneously, on such a large scale. This has happened to such an extent that without exception the leaders of all religious communities have found themselves in an awkward and helpless situation, in a state of impasse where they have been coerced or obliged to submit to the directives of their respective state authorities. In adhering to and complying with these instructions, religious leaders have never questioned nor doubted their compatibility with the beliefs, values, rituals and practices of their religious traditions, for the Coronavirus crisis has left them, put in existential terms, in an *either/ or* state: *to be or not to be*, survival or death. Either abide by the rules and preserve and ensure the continuity of their religious beliefs and practices, along with their communities, or disregard and disobey them and face the unpredictable but hazardous consequences.

Despite the forced closure of their houses of worship, interruption of congregational prayers and other ceremonial services, they had to accept the *new normal,* raising little or no objection. In such extraordinary and potentially life-threatening conditions, the question for all the religious leaders has been an existential one, i.e. what must be done in order to stay alive and to keep the members of their communities and congregations alive. Their struggle, therefore, has been to ensure full compliance with the rules and restrictions that have been imposed on them by governments and public health authorities, and at the same time provide a reasonable and convincing explanation of the outbreak, its meaning, and the reason and rationale for its occurrence. How

and why did it happen? Where does God stand in relation to it? Is it God-sent or human made? How long will it last? In answering these questions, every word the religious leaders utter and every message they convey to their respective communities must as expected, be supported and justified by their religious teachings and at the same time be consistent with the directives of state authorities. Given these unavoidable conditions, therefore, all religious leaders have been compelled to re-read carefully their respective religious sources, sacred texts and commentaries, and re-interpret them in the context of this *new normal*.

Second, how the chief representatives of each religious tradition approach and interpret the pandemic from the vantage point of their respective spiritual and moral teachings, all the while respecting the explanations of state and scientific authorities. To do so has proven to be a source of anxiety and effort as they mobilize their spiritual powers and undertake the necessary intellectual effort to account for the sudden appearance and rapid spread of the virus in a *theologically-scripturally justifiable and acceptable*, *rationally and scientifically intelligible and persuasive* manner.

These crucial questions have reminded us, if not sparked anew, the ancient and acrimonious debate between science and religion witnessed in the Western world during the late Middle Ages, when almost no instance of such debate had taken place in the Muslim world. Similar disputes on the presumably existing conflict between science and religion have once again come to the fore, however, in the context of the Coronavirus pandemic now sweeping the globe. These time-consuming and intellectually unproductive debates have not only negatively impacted and even occasionally confused perceptions of the pandemic, but also gravely complicated the smooth adjustment of peoples' lives to the *new normal*. For neither science nor scientific theory, but moral norms and values, govern and shape the life of a society: moral norms and values that are already well established, widely accepted and widely regarded as universal.

What is naturally expected from a scientist is that s/he focus on finding out *what* the novel Coronavirus is, *what is the possible cause* of its occurrence, *how* it is communicated, and the search for an effective cure or vaccine. From a theologian or a religious scholar it is anticipated that, in accordance with the information provided by science, s/he offers moral support for people by means of authentic examples from the historical sources of her/his/ religious tradition, urges them to remain vigilant, to protect their lives, their intelligence, their spirits and property, while inviting them to cooperate fully with others, especially health workers and state authorities, in order to overcome or, at least alleviate, the adverse effects of the pandemic. In this spirit of collaboration, scientists continue their search for a cure, medical doctors care for their patients, and religious leaders guide members of their respective congregations and maintain high moral.

If this is done, these professionals can contribute significantly to maintaining and sustaining a physically healthy and morally-spiritually strong society. Incidentally, this kind of close and effective cooperation between scientists and religious scholars, which is necessary in any given country, is most desirable if implemented globally and internationally, among governments, particularly as they are all fighting against a single mortal threat. Some countries, Turkey among them, have already displayed such cooperation by supply medical equipment to needy countries.

But, to return to our subject, the conflict previously discussed is not necessarily one between science and religion, but rather between representatives of science or scientists and representatives of religion or, more specifically, between the attitudes and perceptions of scientists and those of religious leaders. As such, this crucial issue, involving as it does the behaviours and actions of both groups, must be evaluated from the viewpoint of professional ethics in general and of moral philosophy in particular.

Psychological Implications of the Coronavirus Pandemic

Leaving aside for the time being the relative positions of religious representatives and those of scientists, what has been the psychological impact upon and its implications for the lives and livelihoods of individuals? As a result of the strict implementation of the restrictions imposed by the state authorities to prevent the spread of the virus, many businesses, with the exception of those shops supplying basic needs, such as markets, groceries and pharmacies, etc., have been forced to close their doors. Millions of people all over the world have lost their jobs and, despite some financial aid from government, have had to cope with a full-fledged economic crisis. Another badly affected group has been youth. Previously accustomed an active social life, restrictions have forced them to lead a lonely, passive life indoors, which has in turn caused immense stress and anxiety. Sizeable numbers of young people, due to long periods of self-isolation, have turned to unhealthy and often dangerous ways to seek relief and comfort. Some turned addictive drugs, opium, tranquilizers and intoxicating beverages while still some others, unable to bear their suffering any longer, terminated their lives.

Among these are the emergency ward physician who, working eighteen hour days in a New York hospital, witnessed so many deaths and so much suffering that she became extremely disturbed and, shortly thereafter, died of self-inflicted wounds; a German finance minister who, overcome by concern about economic distress resulting from the pandemic, took his own life; a British youth who, gravely "distressed by social distancing measures," took his life; an Italian nurse who, fearing that she had contaminated others, ended her life (Bach, 2020).

In addition to the actual physical death-toll, there will surely continue to be, in the future, other types of deaths, losses, and emotional and physical damage, caused not only by the Coronavirus epidemic, but primarily because of its psychological factors, such as fear, anxiety, stress, worry, pessimism, loneliness. These psychological factors may well lead to mental disturbances, illnesses and even death, which can be designated as resulting from despair. One of the most adverse effects of the self-isolation measures necessitated to combat the pandemic, has been its impact upon public and private behaviour.

Because of the lengthy period of self-isolation, people appear to have gradually and inadvertently adopted certain careless habits and thoughtless lifestyles, acting in a less thoughtful and more arbitrary manner. They even have started engaging in certain abnormal actions that they generally avoid displaying in public life. Habits and practices have become inverted; night for some has become day, and vice-versa.

The Global Pandemic and Its Moral Implications

"How should we perceive the Coronavirus outbreak?" This was the pivotal question to which we obtained responses from representatives of the major monotheistic religious traditions. Now along the same lines, we must re-consider some, if not all, of the implications of the outbreak of the pandemic. For this unforeseeable and yet somehow predictable predicament has made it possible to examine and test the humanity's achievements in many areas.

It has certainly provided an excellent occasion for us to carry out a series of tests: *firstly*, medical, to determine the extent of humanity's achievements in the field of medicine and health sciences; *secondly*, a test of political will, to assess the positions and resolutions of the state authorities and politicians in taking decisions to confront and manage the pandemic; *thirdly,* an ethical test, to examine the consistency or inconsistency of people's behaviour in dealing with the impact and consequences of this virus; *fourthly,* a psychological, spiritual or a test of faith--all of which can conveniently be summed up under the heading of *a test of spirituality*--to measure people's strength in facing and enduring the hardships caused by the pandemic. All of these tests and trials will most likely continue for some time to come.

During these critical days, as we are now witnessing, the moral values and judgements of many nations have been subjected to a serious test as well. To be more precise, while fighting this tiny and invisible, yet thus far invincible, particle, all nations, all governments and all countries, from the poorest to the wealthiest, from the least developed to the most advanced, have without exception knelt down before it. Each one now appears to be suggesting its own view of what is right and what is wrong, what is valid and invalid, what is useful and what is harmful, displaying a wide range of opinions and diverse attitudes, all of which need to be examined from the standpoint of ethical philosophy

in order to see how consistent they might—or might not—be with universal moral values. Once more all their choices and preferences, all their decisions and judgements, will probably continue to be discussed for quite a long time. Were they right, accurate and consistent from the point of view of human rights? Since the question—especially for many "developed" nations was not simply restricted to "what we should do in order to fight against this virus and prevent its spread," but, extended to "which should we choose, to save lives or to keep the economy alive and active"—their choices and decisions have become all the more important. In other words, the pandemic has put some nations' and their political leaders' behaviour in handling and managing the crisis and its aftershocks to a profound moral test. In the United States, for instance, a state governor seems to have suggested that "instead of shutting down economic activity, people over 70 should sacrifice themselves for the sake of their country." (Authers, 2020) which raises the question: how acceptable is it to even consider such an idea, let alone enunciate such a proposition?

There can be little doubt that the Coronavirus epidemic has, for some—to use philosophical terminology—an existential question, a question of survival, i.e. that of the human species, while it impelled others to make the essential decision to keep the existing capitalist system functioning at any cost. Some young people, on the other hand, have adopted careless attitude to the new virus and begun circulating publicly, on social media, bizarre declarations, "If I get corona, I get corona," and "nothing will happen to me." Such irresponsible behaviour on the part of young people must be questioned, again, from the viewpoint of moral philosophy. For every action a human performs and every attitude s/he exhibits, whether be it in a normal condition or in a fraught situation such as this, will definitely have a positive or negative reaction or outcome. If we look at it from a Kantian perspective, irrespective of our circumstances, we should behave and act in such a manner that our actions and behaviour conform to a universal *formal* moral rule upon which all can agree. That is to say, that a given behaviour or act, regardless of where and how it takes place, should be valid and acceptable to all as a certain necessary rule or, in Kant's own terms, a *categorical imperative* (Humphreys, 2020). No one in this sense should display attitudes that are subjective and arbitrary, nor should s/he display contradictory and inconsistent behaviour. Even in most difficult times and dire circumstances, as in the current Coronavirus pandemic, everyone should follow and respect the same moral instruction and the same moral rule. There should hence be no leeway at all for the application of exceptional rules, nor for the acceptance of any exceptional actions.

Another vital issue is the necessity for all segments and strata of a given society to act in a spirit of solidarity. For the state authorities to make correct and timely decisions, all responsible and competent people, from scientific experts to politicians, whether in power or in opposition, are expected to pool their efforts and work together as a team, so that common people, i.e. the ruled, can cooperate and respect policy decisions without falling into despair.

Fighting the Coronavirus and preventing its spread must be the overarching goal, ahead of all other interests and concerns. To achieve this prime goal all efforts to be exerted, all methods to be employed, all measures and decisions to be taken require first and foremost the involvement and participation of all. In such a case, every individual, every group and every segment of a society is expected to behave according to universally accepted moral principles and norms so that everyone's actions be coherent and accepted by all as a universal moral rule, as a *categorical imperative*.

Pandemic, Religion and Morality

One crucial question remains: what are the essential or basic needs of a human being? As a result of the enforced restrictions, in most countries around the world, all shops and businesses were immediately closed by state authorities except for markets which supply foods, meats, vegetables, drinks, as well as pharmacies. However, in one of his weekly press conferences the President of the United States of America made a surprising public announcement, declaring that all houses of worship, synagogues, churches and mosques should be re-opened, as they are "essential places that provide essential services." He even went ordered state governors to immediately open houses of worships because "America needs more prayer, not less."

Muslims, though they can by all means perform daily prayers at home, are required to offer Friday and annual feast-day prayers in congregation at mosques. Jews, in like manner, perform congregational prayers in synagogues on Saturdays, while Christians perform theirs in churches on Sundays. Yet despite the importance of congregational prayers, virtually all the leaders of these three religious traditions, having firmly re-affirmed the fundamental teachings, of their respective holy Scriptures that "human life is sacred and inviolable and hence it must be protected under all circumstances," had no option, in the light of these increasingly trying circumstances, but to close down all their churches, synagogues and mosques in order to protect the lives of the members of their respective communities. This being the case, then, one would argue how plausible and justifiable it was, in terms of morality and political ethics, for a political leader to issue an order, with no backing from health experts, stating that worship is essential, more prayer is needed and therefore all houses of worship must be re-opened? Could there be a theological and/or judicial or moral justification for such an order? Which authorities, furthermore, had been consulted prior to taking such an important decision? Has this matter ever been brought to the attention of the representatives of religious traditions and their professional opinions been sought? All these and other similar questions fully warrant being discussed from the viewpoint of moral philosophy. It must be further noted that this particular presidential pronouncement appears to have been issued, as reported in the news, in reaction to the attitudes of some state governors who, while keeping houses of worship closed, allowed "liquor stores and abortion clinics" (Daily Post,

2020) to open as they were deemed "essential." By issuing such a decree, which has received almost no support from religious leaders and was not even implemented immediately by state governors, the American President appears to have been acting on presumable good will, and "corrected the injustice," as he argued, to declare "houses of worship essential" (Daily Post, 2020).

There remain other serious questions and issues that should be subjected to critical examination from an ethical standpoint. For instance, how is it *rationally* explicable and *morally* defensible to justify the indifferent and selfish attitudes of those who deliberately disobey, or neglect to obey, the vitally important disease control directives and restrictions issued by state authorities compared with the cautious and respectful attitudes of those who not only meticulously observe the regulations themselves, but also advise others to follow these directives and restrictions? The positions, initiatives and actions taken by law-abiding individuals against the scofflaws, including overlooking, ignoring, warning, complaining and reporting to authorities, should also be closely investigated from an ethical perspective, for each of these behaviours and attitudes carries an implication—even multiple implications—for society at large. All these responses must therefore be carefully scrutinized and closely studied through the prism of both moral philosophy and universal human values.

When we approach the issue strictly from the vantage point of physicians, we encounter another seemingly paradoxical, and even bizarre, situation. Medical doctors, having devoted their entire lives to saving lives in strict compliance with their Hippocratic oath, appear to have been left to face an inescapable dilemma. Due to shortages or lack of sufficient intensive care units, devices, tools, etc., has forced them to choose between patients infected with the virus. Inevitably, and morally most troubling, they must decide—and morally justify their decision—the life or death of their patients, those who will be given priority treatment, and those who will be left aside. Should they treat relatively young patients and neglect older ones, assuming that the former, because of their physical and biological strength and immune resistance, can be treated more effectively and are more likely to recover than the latter? No doctor would ever wish to find him or herself in such a state of limbo, a state that has been forced upon him or her by inevitable and dire circumstances. In the light of medical and professional ethics, such a situation is impossible to accept. Such forced preferential attitudes, actions and decisions, all of which pose grave consequences for a society, and which somehow reflect the positions of utilitarian moral philosophers, need to be investigated in their own context and also in a broader context of philosophy and sociology. Even should we adopt the view of utilitarian philosophers temporarily as a worldview and tolerate the sacrifice or loss of certain people in pandemic conditions for the sake of preserving the lives of the majority–opting to prioritize the interests of the majority—we can still dispute the acceptability of such a position from the standpoint of universal moral principles and values.

During these critical days we have witnessed another similar practice drawn from philosophical utilitarianism being adopted by a certain state authority in a European country, that is, the United Kingdom. The chief adviser to the Britain's Prime Minister, arguing utilitarian motives designed to protect the economy suggested, instead of enforcing restrictions to impede the spread of the virus, that a policy known as "herd immunity" be applied throughout the country. Under this policy, people are left free to be exposed to the virus so that as many people as possible will fall ill thereby producing immunity on a large scale. The real intention behind such a policy, not explicitly articulated but implicitly indicated by the adviser, is to protect the economy at any cost by keeping all businesses operating and letting all routine social activities continue, as if nothing were happening. When we think of unforeseeable and potentially catastrophic consequences of such a "policy", which might better be termed "gambling", we quickly realize that even entertaining such an idea, let alone implementing it, is fraught with intractable ethical problems. That is why the chief adviser, in the face of harsh criticism that led to a nationwide uproar, immediately disavowed it (Authers, 2020). But what is truly inconceivable—bizarre even—is the fact that the notion of sacrificing human life for the sake of protecting the economy has been entertained in a self-styled modern developed country, one which claims to be a defender of human rights.

Some countries—Turkey, for example—witnessed the implementation of diametrically opposed policies, geared to protecting as many lives as possible. One of these, which were taken upon the recommendation of a scientific advisory committee, was designed to protect the country's elder citizens. Those 65 and older faced strict restrictions, such as being confined to their homes and allowed to go for certain limited hours on a particular day of the week, when streets were relatively less crowded. It was a policy that restricted freedom and at the same time reflected the state authorities' concern for the fragile health and relatively weakened physical condition of their elderly citizens who were more vulnerable to infection and who, if infected, would suffer more and need more time to recover. It was a policy that sought to draw on at least two universal moral principles: sanctity of life and the equality of all human beings. In accordance with the former, it ensured that the life of every living being should be protected, because life itself is sacred; and in compliance with the latter, it reinforced the principle that all humans, young and old alike, man and woman alike, ought to be treated equally and justly. In order to implement the latter, i.e. the principle of equality, the former, i.e. the sanctity of life, must be ensured. Though this policy limited the free movement of a certain group of people and hence seemingly did injustice to them, it was purposely designed to protect their lives. It was thus congruent with universal human rights and moral values.

In these challenging times, we have also observed that people, primarily in Europe and North America, overwhelmed by panic, rushed to markets and grocery stores and began purchasing food, drink and other items, in quantities far more than really needed and to hoard them selfishly in their

houses. Such egocentric behaviour, which can only be described as morally reprehensible, have demonstrated the sad fact that many human virtues, such as 'contentment', 'caring', 'sharing' and 'cooperation,' have all but disappeared in these economically and technologically developed capitalist countries. It would appear overwhelming individualism and egoism attitudes have over time become supreme values, reflecting to what an extent the conditions and requirements of living together in society have been forgotten, with everyone obsessed with his/her needs only, with no regard whatsoever for the needs of others. As a consequence of leading such self-obsessed lives, people have either completely forgotten, or purposely neglected, things they once collectively practiced as moral virtues, such as caring and sharing. Universally praised and widely practiced religious and moral teachings, such as, "love your neighbour as you love yourself" and "wish for others as you wish yourself," are paid only lip service.

In sharp contrast to such insensitivity, some countries—Turkey included—moved to provide their own population with protective medical equipment such as face masks and gloves, but also dispatched medical materials to other countries, poor and rich, more developed and less developed ones, where need was greatest. In so doing they demonstrated, both *de facto* and *de jure*, the significance of such forgotten moral virtues as sharing and caring at the international level.

Conclusion

What kind of meaning can we find in this *new normal* made up of uncertainty, not to say existential doubt? To respond to this philosophical question from Heidegger's perspective, there are two things in life that provide meaning: one is whatever they work at and care about, the projects in which they are involved; the other is their relation with other people. For Heidegger, then, people find meaning either in the activities they are engaged in or when they are together with others. But, because of the current pandemic, people have had to suspend their projects and activities in addition to cutting themselves off from other people as a result of long periods of self-isolation. In such circumstances, life has probably has lost much of its meaning, seen from the perspective of Heidegger. Life itself, which they once fully enjoyed, is now devoid of meaning. Most people nowadays feel emptiness in their lonely lives.

Still, we must ask ourselves if there was really any meaning in the things we were so dearly attached to, the projects we were deeply engaged in and the routine daily activities we were usually accustomed to. Did all those things, projects and activities give, in the true sense of the word, true meaning to our lives? If the response is affirmative, then we may begin fresh projects and activities in this so-called *new normal* such as learning new things, and thereby making life meaningful again. From this perspective, life will go on and the new things we work on will over time become routine.

If we examine the current crisis from a strictly philosophical viewpoint, it cannot be viewed as an existential one. For what is at stake is not necessarily the fate of the human species or its extinction from the world. Despite tens of thousands of human deaths, due to the Coronavirus pandemic, based on the current available statistical data, the total number of losses across the globe till now constitutes less than 5 percent of the world population. Of real concern are the disappearance of universal human values; the loss of morality and spirituality of humanity, and the concomitant rise of materialism and egocentrism. Will human beings, after having gone through this painful experience, be able to return to their pristine state and their primordial nature (*fitra)* and realize that they are not merely biological and physical beings composed of flesh, bones, and skins, but on the contrary are, as unanimously proclaimed by all Prophets, first and foremost spiritual beings equipped with the powerful faculties. The great question is this: will humans be able to assume their duties to their Creator and to their fellows with a sense of responsibility and accountability in full accordance with the purpose of their creation.

While focusing our attention on the adverse effects of the Coronavirus pandemic on the nations of the world, we must not overlook the possibility that it may yield some positive results and even make some significant contributions to the wellbeing of humanity. For, if we closely ponder its possible positive effects, we can discern that the real issue is not necessarily the epidemiological nature of the pandemic, but rather what kind of impact it will have on of the way people behave and on the attitudes they will develop and display in a dramatically changed post-pandemic environment.

Before, people had been leading routine lives, as if by clockwork. When all of this sudden ground to a halt, people looked on as all they had previously possessed, materially and immaterially, individually and socially, was gradually taking leave of them. Before the pandemic, we sought comfort in the company of others; now we find it in isolation; once soldiers and police were the protectors of a country, now doctors and nurses are in charge; every country had its own enemies, now the entire world has a common enemy; once people had easy access to everything they needed and were free to consume anything they wished, now they have limited access and are not free to get anything they want; once individualism reigned supreme, now there is forced collectivism; once living in society and being active in social life were encouraged, now staying aloof from society is almost a standard norm; active is once living in an extended family was strongly recommended, now it is discouraged and living alone is urged; once daily affairs were carried out face to face, now even important meetings are taking place and decisions taken on virtual platforms; once instructors were teaching in classrooms amidst warm interaction, now they communicate with their students with virtual means. In brief, every variety of human activity is now taking place, and will continue to be so, in a climate of uncertainty shaped by these paradoxes. The routine activities and daily affairs in which people were once habitually engaged in their *old normal* lives are very likely to be carried on under forcibly changed and continuously changing

conditions in this *new normal* life. These changing attitudes and behaviours will likely become standard norms over time, and promise an unpredictable impact on the fundamental moral values of society.

Despite the apparently negative effects of the pandemic, one final remark must be made before concluding: if people can reflect more closely and comprehensively on current conditions, they will be able to discern that the Coronavirus pandemic has given them a great opportunity to return to their own inner world, especially when they found themselves in self-isolation or retreat--*khalwah* in Muslim mystical terms. They may thus re-discover themselves and thereby find answers to such vital questions as who they are, why they are here on this planet, and what things are truly important in their lives. The crisis has prepared the ground for realizing the vital significance of moral virtues, such as justice, goodness, fraternity, friendship, generosity, kindness, respect, caring, sharing, cooperation, love and compassion, all of which are very much needed but largely forgotten by humanity because of the countervailing negative qualities of selfishness and extreme individualism. Every nation would thus derive moral lessons from the pandemic and strive, in a spirit of cooperation, and in the light of universal human values and moral virtues, for the wellbeing of all humanity.

References

Ali, M. M. (2020). Tackling the COVID-19 pandemic: An Islamic perspective. *Muslim Mirror*. Access: http://muslimmirror.com/eng/tackling-the-covid-19-pandemic-an-islamic-perspective/

Authers, J. (2020). How Coronavirus Is Shaking Up the Moral Universe. *Bloomberg Opinion*. https://www.bloomberg.com/opinion/articles/2020-03-29/coronavirus-pandemic-puts-moral-philosophy-to-the-test

Bach, T. (2020). Will Suicides Rise Because of COVID-19? https://www.usnews.com/news/healthiest-communities/articles/2020-05-22/experts-warn-of-a-surge-of-suicides-tied-to-the-coronavirus-pandemic

Brown, L. (2020). Evangelical pastor claims coronavirus is God's 'death angel' to 'purge a lot of sin'. New York Post. https://nypost.com/2020/01/29/evangelical-pastor-claims coronavirus-is-gods-death-angel-to-purge-a-lot-of-sin/

Cohen, E. (2020). Coronavirus in the Eyes of Muslim Clerics. *The Begin-Sadat Center for Strategic Studies – BESA*. https://besacenter.org/perspectives-papers/coronavirus-muslim-clerics/

Daily Post. https://www.postguam.com/news/local/president-trump-declares-houses-of-worship-essential-orders-they-be-allowed-to-reopen/article_8f6cdcf6-9c7f-11ea-ac8a-7fda59d5940f.html

DeJesus, I. (2020). Faith leaders reject the idea that coronavirus is punishment from God for a sinful world. *PennLive Patriot-News*. https://www.pennlive.com/coronavirus/2020/03/faith-leaders-reject-the-idea-that-coronavirus-is-punishment-from-god-for-a-sinful-world.html

Doody, C. (2020). Vatican official: Coronavirus "not God's punishment, but our own self-punishment". *Novena – Europe Church News*. Access: https://novenanews.com/vatican-official-coronavirus-not-gods-punishment/

Gilad, E. (2020). How Judaism Handled Epidemics Down the Ages. *Haaretz*. https://www. haaretz.com/science-and-health/premium-coronavirus-epidemic-history-jewish-1.8724141

Gordon, S. (2020). Coronavirus pandemic may lead to 75,000 "deaths of despair" from suicide, drug and alcohol abuse, study says. *CBS News*. https://www.cbsnews.com/news/coronavirus-deaths-suicides-drugs-alcohol-pandemic-75000/

Görmez, M. (2020). Coronavirüs Özelinde Musîbetleri Okuma Usûlü. *İslam Düşünce Enstitüsü*. https://www.youtube.com/watch?v=3a6GWYCs3Yk

Haque, M. (2020). How to View Calamities from an Islamic Perspective. *American Muslim Diversity Association – AMDA*. https://www.amda.us/index.php/khutba/550-how-to-view-calamities-from-an-islamic-perspective-feb-14-2020

Hitchcock, M. (2020). *Corona Crisis: Plagues, Pandemics, and the Coming Apocalypse*. Thomas Nelson.

Humphreys, J. (2020). Are we all Kantians now? The COVID-19 effect on moral philosophy. *The Irish Times*. Access: https://www.irishtimes.com/culture/are-we-all-kantians-now-the-covid-19-effect-on-moral-philosophy-1.4229595

Kettley, S. (2020). Coronavirus in the Bible: Bizarre claim virus is punishment for Christian persecution. Express. Access: https://www.express.co.uk/news/weird/1258745/Coronavirus-Bible-virus-punishment-God-Christian-persecution-COVID-19

Kuşpınar, B. (2020a). 'From Self-isolation to Self-realization' Islamic Spirituality | Part 2. *Diyanet Center of America*. Access: https://www.youtube.com/watch?v=WqYjr8zC-uQ

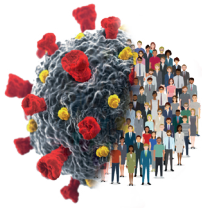
Kuşpınar, B. (2020b). 'Preservation of Health' Islamic Spirituality Lectures | Part 3. *Diyanet Center of America*. Access: https://www.youtube.com/watch?v=ArAIxDXE-to

Macneil, M. (2020). *COVID-19 Novel Coronavirus: God's Blessing or Satan's Curse?*. DOI: 10.13140/RG.2.2.18360.70407/1. https://www.researchgate.net/profile/Michael_Macneil2/publication/340772114_COVID-19_Novel_Coronavirus_God's_Blessing_or_Satan's_Curse/links/5e9cc4cb4585150839ebcdb5/COVID-19-Novel-Coronavirus-Gods-Blessing-or-Satans-Curse

Martin, J. (2020). Where Is God in a Pandemic? *The New York Times*: https://www.nytimes.com/2020/03/22/opinion/coronavirus-religion.html

Scanlon, F. R. (2020). "Is the Coronavirus A Punishment From God?" *Commentary on Catholic Issues*. https://frregisscanlon.com/index.php/2020/03/29/is-the-coronavirus-a-punishment-from-god/

US News. (2020). *Islamic State Calls COVID-19 God's Punishment for Foes: Tape*. https://www.usnews.com/news/world/articles/2020-05-28/islamic-state-calls-covid-19-gods-punishment-for-foes-tape



Morality: Awareness of Being Human and Remaining Human in the Post-pandemic Period

Hüseyin Sarıoğlu

Prof. Hüseyin Sarıoğlu

Prof. Hüseyin Sarıoğlu graduated from Ankara University Faculty of Theology in 1986. He completed his PhD in İstanbul University in 1994. Taking the title of associate professorship in 1998, Dr. Sarıoğlu continues his academic studies, which started with research on the classical period of Islamic thought, by focusing on classical logic, knowledge theory, religion-philosophy-science relations and morality. He is also TÜBA member. Dr. Sarıoğlu has been working at İnönü University since March 2020. He teaches undergraduate, graduate and doctorate courses in the Department of Philosophy.

Morality: Awareness of Being Human and Remaining Human in the Post-pandemic Period[1]

Hüseyin Sarıoğlu
İstanbul University
sariogluh@gmail.com

Abstract
Considering its historical counterparts, significant changes are expected to occur in all areas of human life during and after the Global COVID-19 Outbreak. However, as globe almost turns into a "quarantine zone" because of a pandemic emerging during an age that has nano technology, artificial intelligence, robotic production, digital sociability applications, the search for life in space and trans humanism; concern and uncertainty about the future has greatly increased. Some restrictions and practices in community life and relationships have been introduced to prevent the outbreak and reduce its effects. Due to the perception that these restrictions might be permanent and used as an excuse to digitalize social life, the concern and uncertainty are gradually being replaced by fear and chaos. Because of its consequences being far beyond of a health event, if the global epidemic becomes a turning point in terms of the flow of history and "nothing ever will be the same" as it's widely foreseen, morality will also have its share of change. Under these circumstances, a "morality vision" should be put forward again, by considering the predictions, claims and expectations of the new normal period but fundamentally based on the reality of being "human".

Keywords
human, meaning, value, morality, knowledge, faith, intention, action, digitalization, COVID-19

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Taken together with the present scientific and technological development level, it is widely accepted that the COVID-19 Outbreak, which is experienced by the entire humanity and which we wish to overcome as soon as possible, is an unprecedented and unexampled issue in view of its massiveness and characteristics. This *global pandemic* spread almost all around the world from the east to the west and from the north to the south and implies us what "globalization" means as a phenomenon that marks the present era. In this respect, it is considered a turning point in human history and it is stated that "nothing would be the same" as a wish and/or a general statement.

When China declared that some unusual pneumonia cases observed in the city of Wuhan of Hubei Province having a population of 11 million on 31st December 2019, the number of the cases increased to an extent that it influenced hundreds of countries rapidly and reached millions of people. In the meantime, the number of the casualties reached hundreds of thousands (Şeker vd., 2020, Table 7). The daily life almost came to a standstill, the countries closed their borders, the transportation was minimised, the production and commercial activities were reduced to a minimum. The roads, streets, squares, market places and open areas became isolated; and people confined themselves in their houses. In fact, the coronavirus epidemic appeared as a health issue at the beginning, but the humanity faced with a "chaotic" state in its entirety as it influenced all areas of life from education to science, culture, arts, worshipping, agriculture, tourism, industry and commerce. This picture reminded the humanity that the developments emerged after "the health activities, which caused administrational and vital changes throughout the world history and which have global effects" were "shaped by the traumatic results faced by the nations among whom there existed no production even if they had funds." As an instance, it impelled people to think over the relationship between the so-called *Black Death*, which occurred in 1300s and is considered to be the greatest

pandemic in Europe with respect to its consequences, and the decadence of feudalism in Europe (Şeker et al., 2020: 36).

As to the COVID-19 Global Outbreak -notwithstanding that the number of the casualties is less in virtue of the efficient measures-, it is the greatest and the first "global" scale pandemic in view of the countries it effected after the Spanish Flu that occurred 100 years ago. In fact, only this would suffice the entire humanity to be taken with fear and anxiety, and it caused also a "multiplier effect" on this fear and anxiety as it occurred during a period in which human beings have the greatest strength in view of scientific and technological experiences compared to before, they design an utterly different future by nanotechnology, the pharmaceutic production progressed with the collaboration of engineering and medicine, and the search for remedies for death through artificial intellect and transhumanism as well as finding habitats in space remain on the agenda.

Besides this subtler contradiction, various explanations are made with reference to the changes and transformations in social life caused by the previous epidemics and different claims are asserted. Moreover, the rapid spread of these explanations, opinions and claims by means of the information technologies, media and social media, which are considered to be the distinctive means of our age, brought about excessive increase in turmoil, social tension and disturbances. As it is expressed in Türkiye Bilimler Akademisi (Şeker, 2020: 42-43) report: It is witnessed that the scientists were accused of unethical working and sharing without prior authorization and permission by the governments and laboratories they work. // It was subject of debate to what extent China concealed the first case and how late it was in isolating it. And the discussions as such would maintain its vitality. It is claimed that COVID-19 infected people by a virus belonging to coronavirus family after being mutated naturally. Moreover, some people claim that COVID-19 was produced at a laboratory and caused an epidemic after getting out of control, and there exist some views implying that the virus spread all around the world deliberately by those who produced it. Some surveys and articles are shared assuming that those who went shopping at the Huanan Seafood Market in Wuhan were infected and the virus spread by means of the one who ate bat soup or it may have come from a certain species of snake. // Many groundless, unproven and unscientific claims occupy the minds of the people. It is also a fact that sharing through the social media that similar scenarios were treated in various science-fiction and artistic products (movies, novels) in the past or similar developments were predicted in some works of popular culture years ago contributed only to increase the anxiety and unease among the communities.

That the perception and/or the claim that some developments such as *digital world, digital global state, digital social life, humanity 2.0, singularity, transhumanism, etc.* (see. Canan ve Acungil, 2019; Yıldırım, 2019a-b ve 2020) are being used as a preparation phase towards popularizing in a global scale in line with the statement "it would never be the same" which is put into words for the "new

normal period" in addition to the social life confined with such speculations concerning the emergence and the spread of coronavirus intensify the obscurity about the future as well as the anxieties and fears thereof.

The COVID-19 Global Outbreak, which is experienced these days and goes beyond being a health problem, is itself a "human condition" just as expressing various claims, views, explanations and predictions. It is clear that there are responsibilities and tasks of various sorts and extents to be executed by the institutions, foundations and governments as it is the case with each human condition beginning with the emergence of this event to its spread globally, its perception and explanation, interpretation, taking precautions and their applications in addition to predict the new period and condition that would appear in the aftermath. However, it is evident that the main element that determine and direct the course of affairs is *the individual attitudes, manners and acts* as it is the case with each human condition. It is reasonable that fulfilling the responsibilities and tasks of the institutions, foundations and governments in "the new normal period", which is inevitable for the humanity and the societies not only during the epidemic but also after it gain *meaning, value, function and legitimacy* within the framework of "legal" norms, principles and rules whereas the basis on which *the attitude, manner and act* performed by each *human being/individual* concerning all these matters are shaped is "morality".

Morality from the Old Normal Period to the New Normal Period

As the history of the great outbreaks like coronavirus is examined, it is seen that these events led to comprehensive and efficient inquiries in almost all fields to the extent that they would influence the changes in the course of the history, and caused certain transformations concerning the ancient understandings, beliefs and traditions. As a matter of fact, it is known that after the Black Death that terrorised Europe in XIVth century, a new period, that's to say, the Modernity is shaped by a change, which occurred as a result of the questioning the Medieval beliefs, thoughts, principles and values and replacing them with the new ones, and it is also known that the greatest share of this change was received by *morality*. Thus, Modernity, which succeeded in engulfing the societies living over other civilisations and became a "world civilisation", emptied the past memories of the societies it influenced with the memory of the world it belonged by transforming the *notions* and *the values* as well as distracting their essential meaning and quiddity. In turn, this led the humanity to face many "contradictions", "crisis", "deadlock", "war", "chaos" and "obscurity", and it led the crisis experienced by a culture to become ac crisis experienced by all cultures for the first time throughout the history. The problems stirred by the modernity in "hearing", "thinking" and "acting" was expected to be solved by "the political philosophy" in the first quarter of XXth century. However, when this expectation inclined towards "the domain of morality" during the last quarter (Türer, 2009: 17), it became clear that it was the "moral crisis" that constituted the very basis of the problems and a search for solution began (see Sarıoğlu, 2009).

Human and Morality (Akhlāq)

As these pursuits has not achieved sufficient results, the humanity is now experiencing a profound obscurity and anxiety concerning their fate after *COVID-19 Global Outbreak*. If the changes caused by similar events occurred during times, which are more local in view of this global pandemic and are incomparable to the present scientific and technological development, are taken into consideration, the changes that will shape "the new normal period" after the present situation would be expected to influence morality along with all other domains deeply.

The religious doctrines based on the theological/divine authority apart from the classical and traditional as well as the modern philosophical theories generally view morality as a "system od social values" structured by norms, principles, rules and its enforcement in the social domain based on the idea that the human being is a social-political being. If this approach is taken as a basis and if the humanity is supposed to cope with a "social life" illustrated by some unusual concepts such as "digitalisation", "virtual environment", "artificial intellect control", "augmented reality", "transhumanism", "physical distance" and "individuality" during the new normal period following COVID-19 Global Outbreak and if "nothing would be the same", then morality should be defined again.

Even during the "normal period" which began to be characterised "previous/old", the individuals who prefer to appear through virtual/fake accounts on digital platforms know no bounds to express ideas, opinions and acts that is impossible to associate with their real identities. Under these circumstances, an obscurity and even a chaos expected to be brought forth by a "new normal period", in which the social life and relations are predicted to be conveyed from physical social environment to the digital/virtual one, would affect morality deeply as it would affect all domains of life.

The main question(s) to be analysed here are as follows: how would the "ego", "personality" and "identity" of the moral subject be formed during the new normal period in which the human relations/socialisation is conveyed from a physical setting where these take place as a face to face manner to a completely digital/virtual environment to a great extent as a requirement of "social distance" principle?; what would be the "enforcement" appropriate for the "result" emerged with the "norm" concerning the "act" which is an expression of it and how would it be applied? What would be the effects of physical/social distance principle and the digital social life, which are/will be internalized by means of the pandemic, and to what extent they would be realized? It is useful and even necessary to face and criticise everything pertaining to the past while seeking solutions for this and other questions with respect to understand and make sense of the present condition. However, considering the past as the only responsible for the present condition as it is the case in general and believing that it is possible to find solution by becoming distanced from it is useless and unnecessary at the same time. In this respect, it is necessary to deal with

the matter by a noncomplex/unsophisticated approach through "the human being" who is the subject of morality directly without disregarding the visions, theories and discussions concerning morality that has been imagined up to now and without dealing with the details.

To Know the Human Being

In fact, morality can be considered as an issue concerning the process that begins with ""*the curiosity of the individual to perceive and understand himself/herself and what is going on around him/her* and continues *along with individual and specific existence* and *a pursuit to make sense and experience the existence in all its entirety*. Thus, we can examine the issue of morality through two simple practices those can easily be experienced by everyone. (i) Firstly, if the free talks/conversations of a group of people is recorded and analysed in any occasion, it would be seen in the emergent scene that the topic of the conversation is "the human being" and the things told about him/her is "negative" to a great extent. (ii) Secondly, when someone is pointed at among the community after addressing him/her as "the human being" and is requested to tell a few words immediately, it would be seen that these would be "positive" thoughts and expressions are inversely correlated with the previous ones (I experienced this practice for long years with my students and with thousands of people of different educational backgrounds, careers and status belonging to various institutions as a kind of field study; it is observed that the results of these two practices are inversely correlated).

Why do they result in one condition as "positive" and in the other as "negative" although it is "the human being" that is spoken of in both cases? Different answers can be given on various grounds for this question, but this result can be interpreted as most people *are pleased with their own "human condition"* and expressed this with "positive" statements whereas they *are not pleased with "the human condition" of others* and stated this fact by "negative" expressions. Even this contradiction emerging from a simple observation points at the necessity of knowing the being called "human" closely. To know, understand and make sense of the human being means to determine his/her ontological state, nature, power, and the limits. As a matter of fact, it would not be an exaggeration to say that all efforts exerted on thought, belief and arts are directed to a final goal in the last analysis such as *to understand, tell and make sense of the human being* throughout the history.

In the course of life, if the legal norms along with the data based on religious and philosophical moral doctrines as well as scientific surveys those have emerged from the ancient times until today -not to speak of the statements made by each person based on basic observations and experiences- are taken into consideration, the "human reality" appears as follows: (i) a being weak from in one aspect who is need of others and is bound to live in a community; (ii) in another aspect, a being who is keen on autonomy and freedom, and who is not pleased with being subject to orientation but can stand for receiving orders for the sake of expectations; who can adapt for the changing circumstances and

perceive the phenomenon and facts from an ego-centric perspective; who wants to manage everything and makes use of almost everything for self-interests; who considers aims as means and means as aims as occasion requires; who can live love and hatred, hope and fear, joy and despair, etc. together; and who is a being encompassed with contradictions, (iii) and from another perspective, a being that can attain a superior and privileged position in the world of existence by its *intellect and will*. Under the light of these instances, it is possible to say that the human being consists of a three-dimensional structure, namely (i) "need", (ii) "feeling", (iii) "thinking", and is encircled by a fourth dimension, which we can call (iv) "possibilities". Thus, the lifeline of the human being consists of the search for *serenity, peace* and *felicity* by maintaining *conformity* and *integrity* within a "tensional" setting among these four dimensions. From this respect, the human being can be likened to, so to speak, "mercury", a liquid which has the highest specific weight but is unmanageable and can be affected by the outer changes rapidly (these depictions made to illustrate the human structure should not be seen as positive or negative value-judgements but only as determinations. Besides, the human being owes this special and privileged status to this structure).

A crucial question arises in this context: how can the human being maintain serenity, peace and harmony as his/her most fundamental need and the final goal in his/her (i) inward (self, self-awareness, goodwill, self-reliance) and (ii) in social life (personality, we/history/culture/sense of belonging)? Different answers can be given to this question and generally the following elements are pronounced: religion, law, customs, tradition, morality, culture, education…

Each of these words stand for separate structure and institution, and they refer to norms/principles/rules as to how one should behave in accordance with a specific condition. If aforementioned aspect of the human being as "one who is keen on autonomy and freedom, and is not pleased with being imposed authority and orientation" is to be remembered, it becomes clear that the rules imposed unto him/her would mean being "confined" and "prevented", that's to say a status of liberty. In the meantime, if the structures and institutions associated with the other aspect the human being that "can stand for receiving orders for the sake of expectations" for a situation considered to be *meaningful* and *valued* taken together with the fact that they occupy a position that can *judge* "the human acts", it would be seen that the common ground between them is "meaning" and "value".

Then we face with two questions under these circumstances: firstly, is it meaningful, functional and necessary to consider morality reduced, joined or an outward set of norms/rules/principles although there exists norms/principles/the religion, law, customs, traditions that sets rules regarding how to behave in face of a certain situation?; and secondly, what do "meaning" and "value" stand for and how did they emerge?

The Meaning and the Value

The second question can be analysed through two examples those can easily be experienced by everyone assuming that it would serve as a ground for the evaluation of the first question. One of the examples is the letters, which symbolize the sounds come out of our larynx and which are used to externalize, express, convey and record our feelings and thoughts; and the other ones are the numbers we use to form numerals as we refer the quantity and amounts. When the letters are taken separately, they have no other meaning or function other than being symbol for each sound. When they are associated with other letters and become a unit of a whole (word/sentence), they not only gain functionality but also participate in forming a whole. The change of the status and the function of the letters those constitute a whole brings about a change or cease in meaning. The same is true for the numbers and it is not possible to say whether a number is small or big if it is taken separately. However, it is possible say whether they are bigger or smaller compared with another only if they ae associated with the other numbers. When more than one number are joined and made a part/element of a new unit and whole, that whole gains a new value as well as a greater one. A change in its position and function leads to a change in view of its digit value as well as a change of the whole it belongs. These two examples indicate that in order to speak of "meaning" and "value", at least two things should exist and there must be "relation", "conformity", "hierarchy" and "integrity" between them. The same thing can be observed through the notes and tunes that form melodies and through the colours and tones that form the pictures.

If each of us speak of the meaning and the value of something, it is certain that we consider that very thing as an element of "relation", "conformity", "hierarchy" and "integrity" associated with us. In other words, no one is expected to consider anything *meaningful* and *valuable* unless he/she sees it as a *need* or considers it to be *associated/related with* him/her. The individual makes th,s by the help of "thinking ability", that's to say, "the intellect" which makes one a human being. By the intellect, one is able to establish relation with himself/herself, to realise the existence of one's own and attain "the self-awareness". Within the consciousness of three-dimensional space and time, which is gained by the power of intellection, he/she would enjoy the privilege of *understanding/making sense* and *narrating* the existence, phenomenon and facts both by associating with oneself and with each other.

On the other hand, everything in the world of existence were created and formed in a *system of relations* that appeals to the ability of thinking in human being; each human being is born into this system of relations and becomes a part of it. The individual has enough capacity to enlarge and affect shaping the functionality, content and quality of this system by means of the relations he/she will establish. Each relation maintains "rights" and authority" for each party whether it is formed by them intentionally or unintentionally; moreover, it imposes "tasks" and "responsibilities" and attributes them a new "meaning" and "value" at the same time. When the individual conceives this fact, he/

she would realise the meaning and value of himself/herself as well as of those around him/her. The individual would see that he /she maintained everything he/she possesses in the name of *meaning* and *value* or anything he/she appealed while illustrating "his/her own self" by means of others through the relations he/she participated; thus, he/she gains not only meaning and value but also he/she lets others whom he/she is related gain meaning and value. It is with this *consciousness* that the individual would conceive *the goal, meaning and value of the individual, existence and life* in time and space as well as with the dimensions beyond them. It could be said that despite the conflicts and tensions in "need", "feeling", "thought" and "possibilities", the starting point of the path that leads to *serenity, peace and felicity,* which he/she desires in his/her life as well as in the social life consisting of the people of the same structure, is to have a *being consisting of meaning* and *value* or intellect. In that case, where is morality situated on this path?

Morality: The Effort of the Individual to Realise Himself/Herself by the Consciousness of Being-Human and Remaining-Human

At this point, we have to turn back again and start our way with the fact that the human being is *weak*, that's to say, a *being in need*. It is a well-known fact that human is a thinking and social being by definition and has various needs that can be classified under two main groups: bio-physiological and psycho-sociological. It is also known that (i) each act/action/behaviour actualised by the human being deliberately is tended for fulfilling a *need/maintaining* something. (ii) during this tendency, the human being determines *options* for meeting the needs (iii) and *chooses/prefers* one of them that he/she finds *worthy* of realising for various reasons. (iv) *The act* he/she does in this direction (v) brings forth a *result*. It is possible to say this process, which occurs in five stages, has in fact three elements: *the act,* its *before* and *after*. We can also call them as "intention" → "act" → "result".

It would be useful to see if it tends towards religion, law, customs, traditions which set norms/principles/rules concerning what to do in which situations or towards "intention" → "act" → "result" elements of morality which are considered to be in the same category. We know that *result* for law (even only the *negative result*); *intention, act* and *result* for religion; *act* and *result* for customs; -if it is considered as a system of norms and rules- *act* and *result* for morality denote priority and importance. When this is taken into consideration, we can offer an insight for the following question by means of the table below: "Why is there a need for morality in the event that it is seen similar although others already exist?"

Bearing in mind the three-dimensional structure of the human being, it is clear that all three columns of intention, act and result can perform (+) positive/good/right/beautiful or (-) negative/bad/wrong/ugly acts; however, all three levels cannot be expected to be completely (+) or (-) for a normal

and sane human being in his/her acts. Besides, all norms and rules aim to decrease the human acts corresponding to line eight as much as possible and increase the acts corresponding to the first line as much as possible. When it comes to the human being, the existence of acts corresponding to the other lines as emerging from the mentioned four dimensions is quite natural, even inevitable. Considering all these matters, let us assume that the result lines are (+) or (-) and the empty lines in the "total value" column are filled by ourselves/one who performed the act.

	Intention	Act	Result	Total Value
1	+	+	+	+
2	+	+	-	
3	+	-	+	
4	+	-	-	
5	-	+	+	
6	-	+	-	
7	-	-	+	
8	-	-	-	-

When the cells able are filled completely, it would be seen that the "total value" column and the "intention" column match exactly. This indicates that when the individual "value"s his/her own acts, he/she primarily pays attention to "intention". To this respect, it can be asserted that it is much more functional, meaningful and appropriate to think *morality is essentially moulded and shaped in intention and externalised in act and result*, and thus is appropriate to be considered as an *awareness which is individual, subjective* and *inward* rather than an *outward* system of norms/principles/rules presented to the individual.

Intention derives from an Arabic word that has connotations such as "to tend, to show solemnity and determinedness". It is the most fundamental element that determines the manner and the behaviour as well as the act and the attitude displayed by the human being in face of an issue, situation, phenomenon and event. That many elements affect shaping the intention from the genetical/ hereditary features to the culture, background, social environment, physiology and physiognomy, the geography he/she lives and natural environment, economic opportunities and future expectations, the negative experiences and the happy moments, the customs of the society he/she belongs and the religion he/she believes, the worldview and the political ideology, the educational background, career and occupation is a n undeniable fact. considering all these, it is possible to say that it is the *individual* himself/herself who decides to assume an appropriate attitude, manner and act in accordance with the phenomenon, event, issue and situation (need) deliberately under the influence of some of them and despite some of them. That's to say, the *individual* and *subjective* aspect of morality have stronger influence *vis a vis* religion, law and customs each of which is a system of values aiming to guide and lead the way.

Yet, another question may arise at this point: is there an individual basis in human being that can function as a basis for morality the individuality of which is dominant as he/she is open to all kinds of effects and instant changes like quicksilver with his/her three-dimensional dynamic structure? In order to understand this, we have to scrutinize "the human nature/structure" from a different perspective again. On the other hand, the prerequisite for religion, law and customs as systems of norms and rules, which set norms and rules for deciding the appropriate human acts depending on the circumstances to function expectedly and develop a moral theory in accordance with them, is to accept that the human being has a nature or disposition that enables him/her to behave in conformity with them.

I think, Plato's theory of *four virtues* based on the *balance* and *conformity* of the three basic capacity belonging to the human nature/soul – a theory adopted and repeated by many Muslim scholars as well- continues to be relevant and functional even today. According to this, each human being has potency of *intellect* (aql) peculiar to his/her species as well as the potencies of c*arnal desires* (shahwah) peculiar to similar species and *anger* (ghadab)- based on the individual/specific situation, phenomenon and event/context he/she inclines, various names and all inclinations may transform into these two. When these are balanced/in confirmity with the situation one faces, respectively wisdom (hikmah), temperance (iffah) and courage (shajaah) come into being. And if these three are balanced, then justice(adalah) comes out, which serves a basis for morality. All other virtues to be enlisted under these consist of different levels and combinations of these four virtues emerged as they face with specific situations, phenomenon, and events.

From Intention to the Action

How is it possible to pass from intention formed within the inner world of the human being to the act occurred in the outer world? In order to understand this, we have to analyse the "intention-act process" that is completed by "result" meaning to emerge from a need and to meet that need on the basis framed by these four dimensions which we express as "needs", "feelings" and "possibilities". It is possible to illustrate the main stations of this process by appealing to the classical literature as follows: it prompts the *mind* (1) for preference and to find the best (ihtiyâr) (2) by looking for ways/options (knowledge) (3) to meet the need through desire or anger prompted by inner perception/feeling/awareness (hiss) (4) that appears (a) as a result of the occurrence of any absence/poverty/lack/ danger and of the thing(s) that may eliminate them (b) after a need, depending on the phenomenon, event, matter and situation, for the bio-physiological or physico-sociological structure. This is followed by finding the option being preferred (5) and the will to put this into action (iradah), the determination to realise it (azim) and the determination to reach the desired result (qasd), and (6) the *act* comes into being (7) and the *result* appears.

The main points to be analysed in this process, whose stages or elements are dealt briefly, are the elements (4) and (5) that begin soon after finding out something good if it is to be realised for meeting the need among the options (knowledge) and preferring it until the realisation of the act, and the *intention* is shaped at this stage. It must be clarified here where is the option that makes something *preferable, desired and applicable* vis a vis other and whether it is with the one who prefers it or with the preferred. We can try to understand this through an example that is in conformity with the existing global health problem. Let us think that someone, who has enough experience and knowledge just as a person specialized directly on a disease or a health problem and knows that giving up an act linked directly with a disease would be necessary/good/right/useful but continues to do it; for example, let's think that an oncology expert smokes cigarette after he/she gives a conference on his/her field of study. We see similar contradictions far and wide every time. Under the light of mentioned facts, which deficiency, inconformity and unbalance results in a contradiction as such in this matter? If this expert had not been knowledgeable, courageous, temperate and balanced, that's to say if the expert had not possessed the four virtues and been a person having a strong will in general, it would have been impossible to reach at his/her position. Then, why did he/she *prefer* the *unnecessary/bad/wrong/harmful option* instead of the option he/she knew to be necessary/good/right/useful as an act? We often face with situations towards which we have difficulties in deciding and be in dilemma. What we see, in fact, is that there is no agreement of *intellect and heart* or *knowledge and feeling* on one the options, and each insists on a different option. In cases where this *hesitation and instability* do no reach a consensus, the intention does not emerge. Either there exists no act or the result cannot be *ensured*, and *suspicion* occurs at the end. The *intellect* determines, justifies and sorts (knowledge) the option in the process where the intention is formed, and it is the *heart* that *desires/likes/approves* among the options or assumes an attitude (feeling) such as *reject/dislike/disapprove* in view of the options. In this context, when the relation between intellect/knowledge and heart/feeling results in agreement, harmony and concord, *the integrity of knowledge-feeling* is realised and the belief emerges. Here there exists a *belief* about which there is trust vis a vis suspicion concerning its necessity/goodness/trueness/usefulness rather than an option/knowledge which is known to be necessary/good/right/useful. It is possible to say it is right/true belief that emerges when the intellect/knowledge is decisive during the process from knowledge to the belief whereas it is the wrong belief/void that emerges in the cases where the heart is decisive. So, the human being does not try to realise any option/knowledge as an act which he/she does not believe to be safe/trustable/secure, that's to say necessary/good/right/useful/valid. Thus, in order to do an *act*, the intention should be formed with all of its elements, and for the intention to be formed, the knowledge should be transformed into belief (cf. Güngör, 2008: 11-69; Mehdiyev, 2019: 83-103; Özakpınar, 2014). This process whose stages are given briefly occurs immediately in repeated similar situations whereas it grows slow in complicated situations. And this shows that it is a situation of awareness/consciousness in which all elements and dimensions are ensured. It is here where morality

develops as something that gives value and meaning to the act. We can state under the light of mentioned facts that

> *Morality is a state of individual awareness that has a social aspect.*
>
> *Morality is the awareness and success to create the values, principles and rules of the community one belongs as one's own values, principles and rules.*
>
> *Morality is the awareness and capacity to apply the general values, principles and rules adopted by the individual to the specific situations, phenomenon, and events.*

Morality is an effort to realise oneself through one's awareness of being human and remaining human

Apart from religion, law and customs, which value the human acts outwardly, it is clear, meaningful and functional that morality is seen a *specific awareness* that gives meaning and value inwardly to the human acts whose individual aspect is dominant, and we can now examine its relation with religion and law.

Morality and Religion

When the close relation with *individuality, subjectivity and liberty* of the human being is taken into consideration, it would be seen once again that *believing and belief* have an undeniable and unignorable importance for morality. If a need for *interpretation* and a dimension of *meaning and value* appears in any matter or event, it means believing and belief are engaged indeed. In this respect, the basis of the reality between morality, which gives *meaning and value inwardly*, and the religion and law, which *determine value and meaning outwardly*, is the *human capacity to interpret and believe*. It can be said without further analysis and justification that in order to speak of the possibility and basis of goal and functioning for law and religion, the individual should have a minimum capacity to interpret and believe so that morality, in its primacy and the most fundamental form, may become manifest. In this respect, we can pay attention to the guiding contributions exerted by religion and law in promoting morality and preventing and illustrate the religion and law as "morality outwardly" and morality as "religion/law inwardly".

It is not possible to expect for a human being to have an ability to interpret and believe in the concrete, transcendental and supreme realities if his/her *capacity of interpreting and believing have not developed*. As a matter of fact, it is possible to state that the basis of religion, which is a system of beliefs and values, for a human being morality and the relation between them occurs through *interpreting and believing*. We see that *believing*, in which the individual and subjective aspects prevail, appears in difficulty but in a stronger manner in view its object, and thus it is the religion in which believing is learnt and experienced in the most effective manner; so other dimensions of the relation between morality and religion become apparent.

One of these dimensions appear in the context of the need and search *for ontological safety*. In this vein, although the human being has capacity to interpret and assess the beings, phenomenon and events in the physical world in which he/she lives and is a part of it by means of the powers of intellect and will, he/she does not have enough competence to evaluate the world of existence in its entirety and his/her place, goal, meaning and value thereof (Frankl, 2020: 133). However, in cases where the existential goal and the meaning of life are not clarified, morality as the awareness and effort of realising oneself would not maintain its sustainability and effectiveness. The human being would understand even this fact by means of his/her awareness to make use of this capacity, that is morality, and appeal to the religion that offers to meet this need; at the end, the human being would need *to understand and evaluate* it. That's why the individual is required to reach at a certain biological and psychological competence level for the religious duties. Moreover, that's why the imaginations formed on a social basis in view of the existential goal and the meaning of the life since the ancient times are the products of the religious and philosophical traditions. It is a well-known fact that especially the revealed religions placed the human being on a certain meaningful and privileged status and imposed him/her tasks in accordance with this status. In this era, it is clear that science and technology added a glamorous dimension to his/her relation with the natural world in which the human being is a special and important part. Although science and technology caused important transformations in human life, they did not maintain any expansion in view of the search for meaning and the existence of the human being (Kutluer, 2009: 140, 151). Seen from this perspective, it may be expected that the digital new period would make this issue more complicated and multidimensional as well as deeper. For, the meaning and the goal of life, which is defined in the answer given to the question "why does it exist?", cannot be expounded through the data from the science and technology, which pursuits the question "how". This being the case, it is quite natural to consider morality in close relation with religion as morality is a state of awareness based entirely on *meaning, value and belief* with respect to its existence, function and operation. As a matter of fact, it becomes more important or even inevitable to sustain it in new normal period.

Another dimension of morality with the religion appears in the context of one's contradicted inclinations towards authority. As one may recall, it was stated before that human is a being, which is weak and has needs; he/she is keen on autonomy and liberty but is not fond of submission to authority and being directed. However, he/she can stand for receiving orders for the sake of expectations in case of necessity. It is inevitable for human being to be open to the outer supports and orientations as much as possible to form a harmonious and integrated self and personality, that is morality in all circumstances of individual and social life. In this respect, it is known that an idea of authority orients people knowingly or unknowingly in all stages and domains of life. However, it is natural that the orienting influence of authorities, which are at the same ontological level with a person, remains limited and is not inclusive so as to encircle the life entirely. Despite this fact, there appear some inclinations

and attempts in view of the nature of the human being combined with need, contradiction and weakness to *absolutize the limited authority* by not only the *affecting/orienting* but also the need for being affected/oriented; and the history of humanity is full of examples as such. On the other hand, as a result of the aspect that is not fond of authority and being oriented, there are inclinations and attempts to reject the authority completely. As well as the *authoritarian and despotic* attempts and the formation emanating from the human nature, the *anarchist and nihilist* objections have not been for the benefit of the human being. At his point, the authority that the morality as an effort and awareness to realise oneself can rely on/be nurtured/tend is God Who is the owner of a religion that has capacity to address the human nature and Who is the Highest Authority ontologically (cf. Kutluer, 2009: 151).

Another dimension of morality in its relation with the religion is apparent in the efforts of the human being as he/she tries to sustain morality, which is the *effort of realising oneself through being human and remaining human* vis a vis the tensions and problems those emerge at any moment in the inner contradictions and social relations, vital and effective during lifetime. Whether based on being virtuous for the sake of being virtuous and the responsibility of duty/task or on longing for felicity and existential quest for peace, the *intention* can serve as a reasonable and competent instinct/motivation for the individual to fulfil virtuous acts as the manifestation of morality; however, everyone knows that the human being is insufficient to prefer and do morally necessary/good/right in all circumstances due to the familiar nature. For, the human being, by nature, renounces a preferable and achievable option turns to another one with the hope of attaining *better/meaningful and valuable*. But it is possible to face with ungratefulness, not to speak of the deserved and expected reward in conformity with the renunciation. On the other hand, the individual faces with the unvirtuous deeds as manifestations of bad/unwanted morality which are not usually punished, and even gains totally opposite outcomes. The *belief and will* of the individual, who cannot associate such states with *existential quest/longing for safety* and *the virtue/principle of justice* as the manifestation of good/beautiful morality to realise the virtuous acts, would be damaged. If that is the case, morality needs the support of the religion and adheres the eternal life beyond death, which is one of the three essential principle of the religion. What gives the individual *the power to react and endure (patience, perseverance)* in preferring and realising thee virtuous acts in all circumstances as the manifestation of good/beautiful morality are *the principles of faith and religious sentiments* which he/she adopted and relied on. To the extent that he/she believes God rewards even if one commits for His sake, he/she continues renunciation and self-sacrifice for the virtuous acts as manifestation of good/beautiful morality; for, expectation from Eternal Might and will as well as the benefit from Him is incomparable to that of others.

New Normal Period and Morality

The "new normal period" following the COVID-19 Global Outbreak in the context of our main topic can be evaluated in two dimensions: firstly, as an immediate health problem/event that emerges/can emerge from this outbreak, and secondly as a situation desired to be globalized through this outbreak.

First of all, it is natural even inevitable that the outbreak may affect and change the usual needs, perceptions, feelings and thoughts, acts and relations as the outbreak process itself is difficult and problematic process that threats human life and health. Moreover, the emergent unusual new situation as well as its effects that would continue and perhaps become permanent aftermath is also natural. What is expected and needed for a human being within this framework is to understand and try to interpret the normal situation, and to participate in social solidarity on all levels in this matter. As it is known and experienced, the outbreak process influenced particularly health and all parts of human life directly or indirectly. There were people who lost one of their relatives or a beloved one; everyone from those who were treated to the ones who were quarantined, work actively in the healthcare field, the elders who were restricted due to high risks compared to the others, who had chronic diseases to the children, immigrants, the disabled, who cannot work actively or even those who lost their jobs one way or another. However, this global outbreak resulted in both *positive* and *negative* outcomes as any situation, phenomenon or event in the world of existents of which he/she is a part. For example, it is stated that this process maintained some possibilities to be rediscovered which, in normal circumstances, are considered unnecessary and have to be ignored and delayed. For this reason, this outbreak process and its aftermath can be considered a very fruitful opportunity in view of morality, which is the individual's awareness to be human and remain human apart from a system of habits/customs/predispositions or norms/principles/rules. Understanding and interpreting the outbreak process as such find their reflections on the processes of various institutions, foundations and administrations in fulfilling their tasks and responsibilities as well as reaching positive results for compensating the negative effects of global outbreak with all their relations by the effectiveness of the individual's awareness to be human and remain human, that is morality. For, the responsibilities of institutions and foundations have to be fulfilled through individuals and for individuals; that's to say, everything begins and ends with the individual.

Digital Future and Morality

Secondly, it is known that some predictions and projections -some of which appeared as conspiracy theory- have been made stating that such a process would be experienced, then a digital world order would effective since COVID-19 Global Outbreak or even years before. It seems difficult to anticipate to which extent these would happen and what would humanity face in "new normal period". However, we know at least that a great deal of the developments based on digitaliz/ation was made a part and parcel of human life before the outbreak whereas some of it became a part of it to a certain

extend actively. It is clear that legitimacy of this active situation is maintained and caused to spread globally, be it naturally or in a laboratory, through the global outbreak following the spread of so-called COVID-19 virus.

The first question that comes to mind is as follows: it is not possible to state the possibilities as well as the dangers and the threats brought about by this legitimized situation are conceived by people in a global scale properly and conveyed to a capacity to defend themselves and make use of it. on the other hand, it is also known that the possibilities and opportunities maintained by information technologies and the digitalization in all fields from the genetical researches to communication are transformed into threats and dangers by "opportunism" and the safety is not maintained properly as well. This being the case, what sort of dimension and deepness would the *obscurity, chaos and distrust*, which occur in all parts of individual and social life, gain after the mentioned situation become *legitimized/justified* by means of new means and by being globally spread?

Although it is not easy to estimate this, it is possible to say considering that it began with "the human reality" and "industry 1.0", that's to say the revolution of steam machines, and reached to the stage of "industry 2.0" electronic machines, "industry 3.0" computerized machines and the digital production phase until "industry 4.0" robots, and finally "industry 5.0" is on the agenda in which artificial intellect would cooperate with working robots and participate in production, it can be said that even the claims and scenarios seen as conspiracy theories would become true. All these developments and future predictions reveal the obscurity concerning the all fields of individual and social life as well as the future of the individuals, societies and countries in digital future, towards which the humanity approach step by step from the daily life to the relations, family, city, work life, entertainment, social environment, natural environment, laws, beliefs and religions, education and science, culture and arts.

When the landscape desired to be illustrated concerning the digitalized new normal period is evaluated as a whole, it becomes clear that the obscurity, in fact, is related to "the future of the human being", that's to say his/her "remaining human". This issue will manifest itself in two dimensions, namely biological physical value and psychological spiritual existence. In this case, does it mean that the human being transform himself/herself into an artificial being at a point in which the organ production in laboratories for "body modification" by developed technologies as well as making "the modified (!) body" communicate with the digital information sources directly reached at its peak? In a situation in which the individual is made open to all sorts of immediate intervention, control, orientation and direction by being transformed into an artificial human like a robot, is there any need to think what sort of changes and to what extent would be in other fields of human life? Isn't it a fact that he discourse stating that the possibilities presented by digital technologies and artificial intellect would maintain human being comfort and welfare as well as the claim that it would usurp all production, craft and occupation of the human being in all aspects

of life through so-called "aesthetic subject" would stimulate chaos and traumas on individual and social basis? Isn't it true that the information, which will be followed and oriented from one or two centres after being effective globally, be used to attack and eliminate everything from the "standardizing" language to the culture, beliefs, values, way of life, consumption habits, worldviews and human relations? On one hand, isn't it true that provocations, which would destroy the local/national integrity, would be organized in guise of so-called democracy, freedom, universal values, etc. along with this and other similar operations? Is it possible to estimate to which direction the human relations in such a world would be transformed? Is it possible to expect a sound a real social life for the individuals who look for satisfaction with virtual relations in virtual environments and even addicted to this quest? Is it possible to say that the family, street, village, city, country, language, culture, law, society, nation and humanity in a world are safe/secured where the individual experiences a loss of will and initiative during the struggle of being human and remaining human? It is possible or even necessary to form long lists those include these questions. For, the *question* is the manifestation of awareness and the awareness is the manifestation of a need to *question, understand and interpret* which is the first step and the light for hope on the path.

When the estimations, claims and predictions asserted after analysis are taken into consideration, it is stated that the new normal period whose essence will be formed by global digitalization would bring forth the intensification of individuality and the expansion of social groups in virtual environment while they become minimized in real life in accordance with the physical distance principle. When the concepts and projects of *artificial intellect, humanity 2.0 and individuality* are added to the existing issue, it can be said that the course of events would evolve into such a direction to cut the human being off the ontological basis and destroy/scatter/transform his/her existential structure, and the main danger is great and it is for the primordial nature of the human being. Moreover, as there can be no situation, phenomenon and event which are absolutely good or bad, absolutely beneficial or harmful in the world of existents of which the human being is a part as stated above, the precautions for the danger against the human nature is to be found also within the source of that very danger.

If the issue is analysed with respect to the sayings "when people fall down, they get up thereof" and "be equipped with the same weapons of the enemy, it is clear that the ground unto which one falls and the weapon to be used are the globalisation desired to be globalized based on the justification and legitimacy, which are tried to be maintained through COVID-19 Global Outbreak whereas the individual who is expected to fall down is one/the individual desired to be isolated from the physical social and natural environment by means of being withdrawn to the virtual environments. In this case, the counter-struggle should be fulfilled again by the individual himself/herself and over the digital possibilities. For the individual to conceive, understand, interpret these and ensure his/her security would be possible only through being equipped by *the*

awareness of being human and remaining human grounded on reasonability and sincerity, that is by morality itself, and keep them *always vivid and effective*.

References

Burns, D. (2018). *İyi Hissetmek*. Çev. Ed. H. Alp Karaosmanoğlu. İstanbul: Psikonet Yayınları.

Canan, S., & Acungil, M. (2019). *Dijital Gelecekte İnsan Kalmak*. İstanbul: Tuti Kitap.

Frankl, V. E. (2020). *İnsanın Anlam Arayışı*. Çev. Selçuk Budak. İstanbul: Okyanus Yayınları.

Güngör, E. (2008). *Ahlâk Psikolojisi ve Sosyal Ahlâk*. Ötüken Neşriyat.

Kutluer, İ. (2009). Yeni Bir Ahlâkî Bilgeliğe Doğru: İslâm Ahlâkının Nazarî Boyutları Üzerine

Bazı Mülâhazalar. *Çağımızın Ahlâk Bunalımı ve Çözüm Arayışları* (pp. 137-178). İstanbul: Ensar Neşriyat.

Mehdiyev, N. (2019). *Bir Bilme Teorisi*. İstanbul: Dergâh Yayınları.

Özakpınar, Y., (2014). *İnsan İnanan Bir Varlık*. İstanbul: Ötüken Neşriyat.

Sarıoğlu, H. (2009). *Çağımızın Ahlâk Bunalımı ve Çözüm Arayışları*. İstanbul: Ensar Neşriyat.

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). *COVID-19 Küresel Salgın Değerlendirme Raporu*. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34: http://www.tuba.gov.tr/files/images/2020/kovidraporu/T%C3%9CBA%20COVID-19%20Raporu%

206.%20G%C3%BCncelleme.pdf (10.06.2020)

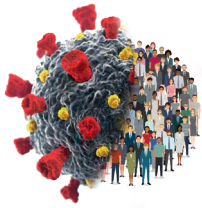
Türer, C. (2009). Ahlâk Bunalımının Nedenleri. *Çağımızın Ahlâk Bunalımı ve Çözüm Arayışları* (pp. 15-32). Ensar Neşriyat. İstanbul.

Yıldırım, H., (2019a, 2019b, 2020). *Yapay Zekâ ve İnsan Kalabilmek 1-3*.

https://www.healthworldnews.net/yapay-zeka-ve-insan-kalabilmek-bolum-1

https://www.healthworldnews.net/yapay-zeka-ve-insan-kalabilmek-bolum-2

https://www.healthworldnews.net/yapay-zeka-ve-insan-kalabilmek-3-ve-son-bolumu/ (30.05.2020).



Sociology of the Pandemic and the Paradigm Transformation in the New Normal Period

Vehbi Bayhan

Assoc. Prof. Vehbi Bayhan

Assoc. Prof. Vehbi Bayhan graduated from Inonu University, Department of Sociology in 1988, Master in 1992 and PhD in 1995. He won the "Young Social Scientists Award of 1999" awarded by the Turkish Social Sciences Association with his book "Anomy and Alienation in University Youth" published by the Ministry of Culture in 1997. In 2003, his book titled "Youth Identity: Sociological Profile of University Youth" was published. He has papers in various congresses and articles in journals on youth, information society, migration, urbanization, gender, democracy, civil society, internet, globalization, suicide, risk society, postmodernism, surveillance society, anomy and alienation. He was a visiting professor at Leicester University in England in 2011 and Wyoming University in USA in 2014. Currently, Dr. Bayhan is a faculty member at İnönü University, Faculty of Arts and Sciences, Department of Sociology.

Sociology of the Pandemic and the Paradigm Transformation in the New Normal Period[1]

Vehbi Bayhan
Inonu University
vehbi.bayhan@inonu.edu.tr

After hopelessness, there is so much hope.
After darkness, there is so much brighter sun.
Mevlana

Abstract
In the 21st century, the COVID-19 pandemic deeply affects the individual, society and state. Individuals and societies live in anxiety, fear and depression spiral in ontological distrust. All pandemics in history have been caused by the virus that has passed from animals to humans. All pandemics have created a change in society. Just as the plague epidemic brought the end of feudalism in the 14th century, the COVID-19 outbreak in the 21st century accelerated the transition to the information society, risk society and surveillance society. In order to protect from the epidemic, family relations have changed in the quarantine period. Education and work are carried out online from home. The practice of staying home changes the daily lives of children, youth, elderly, women, and men. Pandemic accelerated the transition to the information society. Pandemic has revealed the reality of risk society. It builds the Internet-based life surveillance community. Both surveillance society practice and fear of virus produce paranoid-schizoid society. The need for a new paradigm has emerged instead of an individual-based narcissistic culture of neoliberalism. Pandemic will result in the taming of either an authoritarian state, a social state, or liberalism. Countries need to get rid of the paranoid-schizoid mood and re-establish global solidarity.

Keywords
Pandemic, information society, risk society, surveillance society, paranoid-schizoid society

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

People and societies around the world are in quarantine due to the virus identified as COVID-19 that can only be seen with an electron microscope. Individuals experience shock and trauma in anxiety and depression due to the "ontological distrust" that is always at risk of being infected and confronted with death, with the effect of death and disease statistics shared in the media. In the process of intense globalization, it is natural for a person who believes that it exists with consumption, who thinks that the world is at his fingertips, and who disdains everyone and other creatures with a narcissistic mood, that they may experience psychological and social crisis in the possibility of being destroyed by an invisible virus.

The stages of the individual and society's responses when faced with a disaster can be described as follows in the example of the COVID-19 pandemic. (a) *Denial*: Nothing serious happens, some irresponsible individuals just spread panic; (b) *Anger*: Usually racist or anti-state: The Chinese are guilty, our state is not productive. (c) *Negotiation*: Okay, there are some victims, but we can limit the damage. (c) *Depression*: We are all doomed to this disaster. (e) *Acceptance*: Accept the effects and reality of the virus outbreak and comply with the measures. Learning to live with the virüs (Zizek, 2020: 52). As will be noted at these stages, individuals and societies who encounter a disaster and trauma do not accept the problem first, and the next step is to find blame and scapegoat about the problem. At first, the individual who denies the problem and accuses someone else in anger is considering the problem in the next negotiation stage and is thinking about getting rid of trauma with little damage. After the depression stage created by the trauma, it is adapted to the new normal with the stage of accepting and confronting the problem.

Facing the virus outbreak is as old as human history for humans and societies. However, due to his mental and psychological structure, he forgets negativities.

One cannot understand the situations in which he does not live in or experience. He can not internalize the severity of outbreaks in history. When COVID-19 appeared in Wuhan, China in December 2019, people kept on watching those who died on the streets as if watching a movie until they became aware of the seriousness of the pandemic as the virus spread from China to all countries with the rapid and intense interaction of globalization. The majority of countries have started to implement the measures implemented by China against the pandemic in coordination with the World Health Organization.

In this context, the lives of people and communities have begun to change. Analyzing this change process, understanding the transformation, and analyzing new codes of daily life, which are expressed as new normal, will shed light on both the present and the future. There is a one-to-one relationship between the sociology that is examining the social behavior patterns of people and understanding the society. Since every society has its own cultural codes, the sociological structure of all societies is not uniform. Different socialities are a reality as well as similarities in the context of globalization. Sociological analysis has three dimensions: "micro" on individual basis, "mezzo" on institutional basis and "macro" on society and state. Individual, institution, and society are in interaction and relationship. In this article, the sociology of the global pandemic and the paradigm transformation in the new normal period are examined. Thus, the issue will be described in its historical background, current state and the relationality of its possible future transformations within the context of individual, institution and society.

Sociology of Global Pandemic

Globalization is both a phenomenon, an ideology, and a situation as well. No one can isolate himself from the impact of globalization anymore. There is not an outside in globalization; everyone is either a "subject" or "object" of it.

Sociology, which creates its scientific tradition in order to find a solution to the crises created by the industrial revolution, is defined as a science created by industrial society and modernity. After the "Agricultural Revolution" and "Agricultural Society" stage, "Industrial Revolution" and "Industrial Society" were experienced. Today, the newly formed revolution is called the "Information Revolution" and the newly formed society is called the "Information Society". While the symbol of the agricultural revolution is "wooden plow", the symbol of the industrial revolution is "steam machine" and the symbol of the IT revolution is "internet". Traditional culture has been structured in the agricultural society, modern culture in the industrial society and the postmodern culture in the information society.

Different sociologists make different classifications in terms of the transformation of the new social structure, hence the society. For example, Manuel Castells calls this newly structured society as "Network Society". One of

the other new concepts is the "Risk Society" produced by Ulrich Beck. Anthony Giddens also uses the concept of "Reflective Modernization", which includes the concept of risk society, too. Another concept is the "Surveillance Society", first used by Gary T. Marx, developed by David Lyon and also handled by Giddens (Bayhan, 2011a: 207).

The COVID-19 global pandemic serves as a tool that includes both the risk society, the information society and the surveillance society and we experience the practices of these community structures in the context of the social and cultural changes it creates in the society.

The COVID-19 outbreak is not only a health problem, but it is also a social problem. With the definition of the World Health Organization, health is a complete biological, psychological, and social well-being of the individual. The phenomenon of health and illness is not only a disruption of the physiological and biological structure, but also a reality that affects the mental structure and social status of the individual. The geographical environment that everyone lives in builds, cultural and social structure of the health patterns. The prescription of the disease differs from individual to individual, from society to society and from culture to culture.

As seen in history, the risk of pandemic diseases can arise at any time and in any period. Although the risks experienced in each period differ, if we categorize and make the ideal type, it is possible to classify the current and possible risks as follows:

1. *Ecological Risks: Nuclear war threat, global warming, climate change, ozone layer depletion, natural risks (earthquake, flood, fire, pandemics etc.)*
2. *Social Risks: Transformation of the family (postmodern family patterns; increased divorces, single-parent families, loneliness, alienation), unemployment, social interstitial gap, income gap between countries, increased rape of people's privacy through media and the Internet (designed by George Orwel in his novel "1984" The possibility of the danger of experiencing the similar "Big Brother").*
3. *Technological Risks: Mass destruction weapons, chemical and biological weapons, magnetic contamination.*
4. *Cultural Risks: Americanization of living spaces (Hollywood culture affecting all countries through media and cinema), cultural conflict, fundamentalism, ethnocentrism, uniformity, homogenization.*
5. *Political Risks: Regional conflict (Israeli-Palestinian conflict in the Middle East), war, hegemony of developed countries (economic and political dependence), transnational organizations directing country policies (IMF, World Bank, European Union etc.), terrorism (Bayhan, 2002: 200). Sharing war in Syria and Turkey being forced to be home for nearly 5 million migrants and the risks in Syria today. There is no guarantee that no one will be a refugee at any time. We live in fragile and vague times.*

We live with risks in every aspect of our lives. How many of the natural disasters defined as external risk are natural? We exploit the nature and disturb the balance with the endless greedy consumption habit of human beings. We cause flood, drought, pandemic, and starvation. While wealthy societies produce the risk of obesity (overweight); Poverty and deprivation produce the risk of starvation and social explosion in poor societies. We don't know how pure, and healthy the drinks we drink. Although we are aware of the harm that our food contains, especially the additives in fast foods, and the hormones and fruits, we still consume it. Although mobile phones, televisions and computers emit radiation, they function as an indispensable organ of our lives and we depend on technological devices. In crowded cities, we are always at risk of having a car accident and bombing of terrorists (Bayhan, 2011a). With COVID-19 disease, we also recognized the risk of pandemic disease.

In the context of the reality of the risk society, building houses that are resistant to earthquakes from natural risks, not constructing shelters against the flood to the river bed or obeying the rules against traffic accidents are some of the precautions just like the prevention practices taken against pandemics are similar in the historical process.

> *The effects of global pandemics in the context of some examples in history can be expressed as follows. The relationship between outbreaks, people and civilizations goes back to ancient times. There were significant population losses due to pandemic diseases from Babylonians, Hittites, ancient Greek site states to the Great Roman Empire, China and Japan to Europe and America, and accordingly significant economic and social consequences emerged (Şeker et al., 2020: 113). During the Roman plague (161-166), the throne fights increased as a result of the plague pandemic, and Christianity became widespread. Some of the most common diseases such as plague, leprosy, dysentery, syphilis and malaria, etc. were moved to the Islamic geography by the Crusaders armies during the Crusade wars against Muslims for a period of 200 years from the late 11th to the late 13th century.*
>
> *The plague epidemic (Black plague), which started in China in the 14th century and moved to Europe, caused the ten thousand years of feudalismcto collapse due to the population decrease. Religious values decreased and doubts about Christian belief increased, reformations started with the spread of Protestantism (Şeker et al., 2020: 113-114). Plague and flower microbes were among the most determining factors in the emergence of the mercantilist (trade capitalism) period and the emergence of modern European-based nation states between 1450-1750. On the basis of the liberal understanding in the period of 1750-1930, microbes had an important effect on the shaping and development of industrial capitalism within the framework of the market mechanism. Keynesian economics, which raised the increasing importance of the state in the 1930-1980 period, continued until the 2020s as the dominant general paradigm, withdrawing the state from the market and the new classical economics, where the private sector would be more effective. It is clear that with the Coronavirus,*

> *the importance of the state in the economy will gradually increase and more internalized national approaches will come to the fore instead of globalization (Şeker et al., 2020: 118).*

Another epidemic having affected the world was Spanish Flu, which lasted between 1918 and 1920. It is estimated that 50 million people died from the Spanish Flu, which was effective in ending the First World War. It is known that the source of all epidemic diseases is animals and people who exploit nature for consumption. It is a scientifically proved reality that viruses that pass from domesticated animals, especially wild animals, to humans, mutate and pass from human to human.

Spanish Flu, which started in the USA in 1918 and lasted two years, was a virus disease that passes from birds to pigs and from pigs to humans. Spanish Flu, which moved to Europe with American soldiers, has spread all over the world. COVID-19 is also thought to have passed from a wild animal called pangolin a kind of bat in China to people and spread among people. It is already stated that COVID-19 has spread from the wildlife market in Wuhan, China. It is thought that the SARS virus that emerged in 2002 was related to the lifestyle and food culture of China, such as COVID-19, and spread to other countries. Like the COVID-19 in 2020, Spanish Flu in 1918 caused pneumonia and led to death. The similarity between two pandemics that occur 100 years apart is not only the biological and medical aspect of the disease; but it also has a lot in comman in respect of using mask to protect against pandemic, holiday schools, closure of places of worship, physical and social isolation etc.

Today, compulsory changes in people's daily lives negatively affect human relations. Economically, both countries and individuals are negatively affected. In order to be protected from the pandemic, those who have the opportunity to work in their homes and those who have the opportunity to work through the internet can protect themselves from pandemics. However, employees providing health, market, safety, food and distribution services continue their work despite the risk of infection. In addition, those who have to work without social security in flexible jobs are also unemployed due to the closure of their workplaces. The education is carried out in digital environment via internet and creates adjustment problems for students and teachers who are used to formal education. Live at home unvoluntarily causes depression as it causes restriction of the social environment for individuals.

It is seen that the ways of protection from pandemics are the same until medically resolved. The methods used to protect from the Spanish Flu 100 years ago are the same as the ways to protect against the COVID-19 virus outbreak today. It is also interesting that during the plague pandemic 1000 years ago, Ibn Sina's solution suggestions against those pandemic diseases tha spread from person to person were implemented in 2020 as well; "Do the cleaning with vinegar. Always wash your hands, dishes and clothes with vinegar. Don't wander together. Do not create crowds by gathering five to ten people. Leave

the markets. Do not use money. Do not worship collectively. Do not be afraid of the pandemic, avoid the disease, do not leave your patients. Stay at your home and be joyful. The disease escapes from joy" (Şeker et al., 2020: 5). Until vaccine or drug is found, the ways to prevent pandemic diseases are seen to be the same 100 years ago, 1000 years ago and nowadays. The necessity to clean hands and pay attention to hygiene during the pandemic is a positive gain since it became a habit due to COVID-19. While this situation has the potential to rehabilitate the people who are psychologically obsessive-compulsive and constantly washes hands, it also poses a risk for some individuals developing obsessive-compulsive behaviors.

The consequences of historical outbreaks can be categorized as follows:

> ***Health Effects:*** *Mass illness, mass death and disability, insufficient service due to the extraordinary increase in the need for health care, inadequate supply of materials and medicines, negatively affected people in need of care, increase in health expenditures, healthcare personnel and patient-intensive care insufficiency, deterioration of individual and community psychology.*
>
> ***Demographic Effects:*** *Population decrease, population density decrease, decrease in child-young-old population, etc.*
>
> ***Economic Effects:*** *Decrease in production, not cultivating agricultural land, increase in inflation, decrease in growth, increase in unemployment, affected economic instruments, lack of basic needs, etc*
>
> ***Social Effects:*** *Panic, negative effects on human relations, decreased social activities, discrimination, negative effects on city life, negative effects on education, removal of public personnel permits, increased social turmoil, etc.*
>
> ***Political Effects:*** *The collapse of some civilizations, the negative impact of feudalism in the Middle Ages, decreased trust in church-religious structures, Reform and Renaissance movements, change of dynasties-administrations, rebellions, increased restlessness, triggering or ending wars, etc. (Şeker et al., 2020: 31).*

Global outbreaks have also transformed medical paradigms. Just as it shaped a new medical paradigm by understanding the plague pandemic in the Middle Ages, enlightenment and accepting that the answers were in nature; Just as it laid the foundation of modern public health by establishing the quarantine establishment of the cholera epidemic in Istanbul, the capital of the Ottoman Empire; COVID-19 should also demonstrate that epidemics and pandemics do not fit within the framework of neoliberal medicine, and should be able to bring the paradigm evolved from "bedside" medicine to "hospital medicine" with society and to isolate it from profit ambition (Elbek, 2020).

The COVID-19 outbreak caused not only negative consequences but also an environmentally positive outcome. As a result of the halt in mandatory industrial production, especially in China, air and environmental pollution decreased. The researches clearly indicate that the ozone layer, which was

drilled, has fixed itself. Dolphins started swimming again on the seashores when people were forced to stay at home and get away from nature.

COVID-19 has also created changes in the sociology of everyday life. Due to the distinction of public space and private (intimate) space in social life, men spend most of their lives in public spaces (workplace, city square, coffeehouse, cafes, sports events, etc.) in terms of gender; whereas women mostly spend their time in private and at homes. Women are responsible for the whole household chores. While the children go to school early in the morning, the old men spent most of their time in public places such as coffee shops, parks, etc. As a result of the COVID-19 outbreak, all the members of the house started to spend all the time at home with the "stay at home" order. While this situation has caused role conflicts and adaptation problems for some people, it helped to increase social solidarity and awareness for those who managed the crisis well. People who do household chores jointly, who make bread at home and share it on social media are examples of this integration. Although eating outside is a common way of living in modern societies, families started to cook and eat at home due to the closure of all restaurants and cafes during the quarantine process. In fact, the stay at home order leads to a return to traditional and natural life.

In normal times, the fast and competitive lifestyle required by the capitalist economy-politics forced family members to leave the house without breakfast together before going to work or school early in the morning. Before the pandemic, especially in big cities, due to the traffic density, family members were arriving home very late, having dinner separately and using the houses like a hotel. However, after the COVID-19 pandemic, the time spent by family members at home increased considerably. This period created an opportunity for the family members to get to know and discover the house, realize and understand each other. However, the process of staying at home turns into depression for disagreeable spouses. There has been an increase in cases of domestic violence in all countries.

In the quarantine process in China, domestic violence has increased by 300 percent and there has been an intense increase in divorce rates (Euronews, 11.03.2020). Domestic violence increased by 30 percent in France and 38 percent in Turkey during the quarantine period (Erem, 2020).

According to Bozkurt's research, women's productivity decline is much higher than men's. As the number of people living at home increases, women's productivity decreases much more. The quarantine brought by the pandemic has eliminated the possibility of outsourcing for childcare, cleaning and food for women working online. This greatly increased the burden on the working woman (Bozkurt, 2020: 280). The rate of depression is higher in women who continue both their household chores and keep on working from home online.

As a result of the COVID-19 outbreak, those who have the opportunity to work from home via the Internet with the "stay at home" order continued to work online. Online education started for the primary, secondary, high school, and university students via the internet. Education and working style in the information (informatics) society are experienced.

In the context of the information society, with the use of communication tools and computing techniques in education, the structure of education has been changing. In this context, the teacher will act as a coordinator in the computerized education process. Teaching learning will become important. Education will not be limited to schools. In our rapidly changing age, the information learned at school is not sufficient. For this, it is important for the person to constantly renew himself, to follow the developments in his profession. In this framework, the internet will have an effective function (Bayhan, 1992: 187). Every process from production to consumption is structured digitally in our living spaces. E-state and e-societies are the reality of our age.

Turkey has already had the distant teaching by letters in the 1970s and had ongoing distant training experience with Anadolu University Open Education application after 1980. Transition to online education was fast, as most universities already had distance education infrastructure and programs. Primary, secondary and high school education has also been initiated interms of distance education model, which has also been carried out over the internet, especially via television. In this context, the system has already been converted to e-state and e-society applications in the last two years in Turkey and this has provided an important infrastructure and hardware. The banking system was also ready for this new IT society with its online applications. Therefore, the pandemic has been instrumental in the implementation of important transformations of the transition to the informatics society throughout the society. Even if the virus has been vaccinated and medicated, the online education and online working patterns of the informatics society, which is the new social structure, will be maintained together with the old working and education form. In this process, although students and teachers are not used to distance education and they have adaptation problems, an important experience has been gained as a transition process. Homework and project-based online platforms will continue to be used even if normal face-to-face teaching starts. While the widespread use of internet-based distance education model is a reality in education, on the other hand, internet, and social media addiction, especially for children and adolescents, it is also a risk in terms of psychiatric diseases. Apart from the educational function, children and young people who spend all their time with digital games on the internet experience violent behavior due to playing digital addiction and violent games. When virtual social communication replaces real social communication, introvert and nerdy individuals emerge. Generation Z, born after 2000, grew up in the life as the "digital native" where the internet is fundamental. The digital individual of the digital age produces new codes of behavior.

The same adaptation process is also applicable for the knowledge-based sectors that have the opportunity of working online from home. At the first phase, some conflicts regarding the roles at home life and in the business, life may occur besides the decrease in terms of efficiency, yet the new home office system will be adapted. Traffic problems will decrease and time spent in traffic will be saved by working from home, air pollution and environmental pollution arising from the cars on the way to work will be prevented and it will be possible to save from the food and office expenses at the workplace. Even if it is not entirely applicable to work online from home, perhaps it will be possible to switch to hybrid work patterns by working at the office on some certain days and by working from home on some certain days of the week. This transformation may be convenient for knowledge-based sectors; however standard working procedures of other service and production sectors will continue. Also, online teaching may not be available for all social classes of the society. Even in the quarantine process, there were students who could not participate to online teaching from home because they did not have internet connection and computer. The state's Internet provision to all students and families is seen as an important public service of the future.

Tendency of urbanization has increased with the industrialization. Industrial society is the urban society in a sense. However, today cities have become uninhabitable. Although there has been no progress in terms social and material conditions of the city, density of population has increased in the urban life. Problems from settlement to transportation and from environmental pollution to health have increased. In the information society, people move away from the city by means of communication tools and computers, depending on the work locations where the difference of space is not important. Satellite cities are being established near the city and the rate of settlement increases within smaller cities, towns and rural areas (Bayhan, 1992: 188). Those who have the opportunity to work from home by means of internet have moved to settlements in rural areas to avoid from the COVID-19 pandemic. Those who have moved to the rural areas both in order to get rid of the risk of intense human and environmental pollution and virus transmission and to stay in quarantine in a clean and natural environment are the wealthy ones. However, those who are poor and obliged to work had to live in big cities. Therefore, discourse of an egalitarian virus is an illusion since it is transmitted to everyone rich or poor. It is a reality that upper social classes are more privileged and luckier in terms of protection against the virus and treatment of the disease because wealthy ones have financial power to purchase the health services.

In the COVID-19 pandemic, mortality rate is higher among the elderly people since they have weaker immune system and more chronic diseases. Therefore, the first measure to protect the elderly people was to quarantine citizens over 65 years old through the "stay at home" process. However, at the beginning of the application, this situation was misunderstood, and the elderly ones were stigmatized as if they were spreading the disease. In the Turkey case, later the quarantine was extended to the children and young people under 20 years

old by applying the curfew. In this case, the aim was to prevent the risk of young ones' carrying the virus from outside to inside and transmitting to the elderly ones whose immunity was not resistant. Not only are the elderly ones exposed to the risk of stigma. As the virus spreads from China, Chinese and people from Far East, who are similar to the Chinese, have also faced the risk of marginalization and violence and they will be exposed to such treatments. Also, minorities in all pandemic processes have always been stamped as scapegoats. In the COVID-19 pandemic, it is monitored that Muslims in India are marginalized, stigmatized, and exposed to violence on the ground that they spread the epidemic. Migrants constitute the accused and stigmatized groups in each country. The stigmatization and marginalization of the elderly ones is experienced in the way by taking the respirator from the elderly patient and wearing it to the young one when there is only one respirator left in intensive care in Italy and Spain cases. In fact, this situation dates to Darwin's theory of "natural selection." Within the context of the theory of the survival of the strong ones, the practice of "herd immunity" in the first period was abandoned in England when the severity of the pandemic appeared. After Prime Minister Boris Johnson and Prince Charles suffered the COVID-19 pandemic, quarantine measures were begun to be applied.

Turkey has been among the best countries in managing the pandemic process. In order to overcome the crisis with less damage, Minister of Health's working in coordination with the scientific committee, which was established within the Ministry of Health, has gone down in history as exemplary governance practices. Despite the privatization in the health sector with the neoliberal practices, the importance of making public investments in health throughout the country has emerged positively in pandemic. Number of the tomography devices which was seen as waste and more than European countries before also played an important role in diagnosis and treatment of the pandemic. It is possible to say the same thing about the modern and fully equipped city hospitals. Both the USA and developed European countries failed in the management of the pandemic. The crisis has been observed more in the USA where the health investment is left to the private sector with neoliberal practices. The same is true for England, Italy, Spain and France, as well. Turkey has donated health and hygiene supplies to 80 countries, mainly masks and gloves. Britain and Europe, where the industrial revolution started, have become unable to find the enough amounts of masks during the pandemic process as they have carried industrial production to Bangladesh, India and China through globalization and privatization practices. After the pandemic, the neoliberal political economy implemented for the past 30 years will need to be revised.

While the global COVID-19 pandemic allows us to face the reality of the risk society; it has also enforced the implementation of the information society structure. Information society's e-government and e-society applications with the social media usage patterns constitute the transition to surveillance society by evolving into a new society.

In our age, "surveillance society" is the name of the society organized by using surveillance-based techniques. To be under surveillance means recording the movements and activities of the person by using technology on behalf of the organizations and management units that make up the society. These recorded data are sorted, categorized and used to make many decisions that will affect our lives (Report on the Surveillance Society, 2006: 5).

Surveillance is becoming increasingly global. Surveillance in the city is constantly experienced, from the first phone call in the morning, to the camera on the street, to the retina scanner on the bank machine, to the trace cookie on the computer, to the barcode in the office key, to the automated highway toll, to mobile phone connections, to the camera in the shop, to the station and finally to the bar at the end of the night (Lyon, 2006: 111). Our life spaces transform into "One is Watching Us" reality inspired by the television program format.

Since the internet and social media are the basic means of the global surveillance society, it is now a reality that we are constantly observed in all our life spaces. Globalization is not outside. It is a utopia to live in a closed society. We are unable to maintain our daily lives without e-government and e-society. It is impossible to think of a life other than ATMs, where the pensioner or employee withdraws salaries, the fact of shopping by the credit card, and immediate communication by e-mail and social media. We always leave our digital footprints on social media. Social media networks that friends or family members communicate with are almost a part of our lives and bodies. Social media where we share our sadness and joys at any moment actually mirrors us. Our projection is our posts on social media accounts (Bayhan, 2018: 1044). It is anticipated that some technological practices will rapidly spread after the pandemic. Artificial intelligence; storage and sharing of personal data; monitoring the individuals is one of these leading application areas (Taştan, 2020: 6).

China is a concrete example of the surveillance society. There are 200 million security cameras in China and most of them are equipped with highly effective facial recognition technology. They can even distinguish the moles on faces. It is not possible to escape from the security cameras. These cameras are equipped with artificial intelligence and they are able to observe and evaluate every citizen in public spaces, shops, streets, stations and airports. All this digital surveillance infrastructure is now proven to be extremely effective in controlling the pandemic. When someone leaves Beijing station, it is automatically detected by a camera that measures the body temperature. If this temperature is worrying, a notification goes to everyone's mobile phone that is in the same wagon. It is not in vain that the system knows who sits where on the train (Han, 2020). A transparent prison, described by Foucault as Panopticon, is realized by means of today's digital applications and extended to the whole society.

Physical surveillance systems track what we do in the outside world, where we go, with whom we meet, what we watch on TV or which website we visit on the Internet. It has no connection with our body. However, subcutaneous-surveillance systems follow what is happening in our body. It started by measuring values such as temperature. But it can also control blood pressure, heart rhythm or brain activities. Thanks to those, it is possible to learn more about people than ever before. In this way, totalitarian regimes can emerge, which have never been seen before (Harari, 2020).

Due to the protection of the personal information, it is not possible to carry out a similar digital fight against the virus in Europe as it is done in Asia. Chinese mobile phone and internet providers share customers' sensitive information with the security forces and the ministry of health. Therefore, the state knows everything from where I am to who I meet, what I do, what I seek, what I think, what I eat, what I buy and where I go. In the future, it is also possible for the state to control body temperature, weight, blood sugar level etc. A digital bio-politics accompanying digital psycho-politics which actively controls people (Han, 2020). With the chip that is planned to be placed in each individual, it is possible to evolve into the surveillance and control society described in George Orwell's 1984 novel, where there will be no personal privacy.

As it can be seen, the COVID-19 global pandemic is not only a medical problem but a problem having some psychological and sociological dimensions and effects. If there has been a change in the social structure after each global pandemic, just as the feudality resolved after the plague in the 14th century, it can be predicted that societies may turn into surveillance society in the 21st century after the COVID-19 global pandemic.

Paradigm Transformation in the New Normal Period

The statement of "Nothing will be the same anymore" means that new normals will be constructed in our life spaces. New normal period rules are being structured in order to protect against the pandemic that occurs in the period expressed as normal and affects the social and cultural structure. It is the daily life practices of the new normal to wear a mask, to pay attention to physical and social distance and to apply hygiene rules until the medicine and vaccine is found for COVID-19 pandemic.

In addition, there is a possibility that the pandemic could lead to a new paradigm transformation in the social system. Kuhn explains the changes in science with the process of changing paradigms. A science is dominated by a valid paradigm at a certain time. In this process, normal science operates. Scientists work to expand the dominant paradigm in this accumulation period of the knowledge. Such scientific work inevitably produces abnormalities or findings that the dominant paradigm cannot explain. If the abnormalities increase, a crisis stage emerges, and this crisis may result in a scientific revolution. As a new paradigm is placed at the centre of science, the dominant

paradigm is overturned. A new sovereign paradigm is born, and the ground is prepared for the repeat of the cycle.

Inspired by Kuhn's paradigm shift, while normal life continued in the pre-COVID-19 period in its normal fluidity, the whole life was shocked by the COVID-19 pandemic and an abnormal situation caused a crisis. Since the old paradigm (health, state, politics and etc.) has become insufficient, the transition to a new paradigm with revolution and the establishment of a new normal are in question. In this context, the renewal and transformation of the system worn by anomy in the new normal period comes to the agenda.

After the neoliberal economic-political structure faced with the COVID-19 pandemic, discussions about the new economic-political system started. In this sense, this question is asked: "Will the post-pandemic states turn into authoritarian states or social states, or will the liberalism be tamed?"

Authoritarian State

The question of whether the states after the pandemic will evolve into authoritarian structure was put forward by Giorgio Agamben. He claims that the rights restricted by the COVID-19 pandemic are at the risk of turning from an exception to authoritarian rule. According to Agamben, the tendency to use the exception as a normal management paradigm is increasing. The situation of fear, which turns into a real need for collective panic states of the epidemic, also provides the ideal excuse (Agamben, 2020).

According to Byung-Chul Han, China will now be able to sell the digital police state as a successful model against the pandemic. Moreover, it will show the superiority of its system even more proudly. And after the pandemic, capitalism will continue even stronger. The virus will not defeat the capitalism. The viral revolution will not come true. No virus can make a revolution. The virus isolates and individualizes us. It does not produce a strong collective feeling. Somehow, everyone just tries to survive. Solidarity established by maintaining mutual distances is not solidarity that allows us to imagine a different, more peaceful and fair society (Han, 2020).

In her book, The Shock Doctrine - The Rise of Disaster Capitalism, Naomi Klein states that political powers may benefit from the public's shock state after some shocking events such as war, coups, terrorist attacks, market disruption or natural disasters. Powers may suspend the democracy and implement radical "free market" policies which are disadvantageous to lower-middle class but prospers the 1% of the population after such shocks. However, she states that shocks and crises do not necessarily have to move forward in this way since it is possible that a crisis can also lead to an evolutionary leap (Klein, 2020).

Social State

According to Zizek, as the COVID-19 pandemic panic spreads, we now have to make a final choice: either we will accept the wildest logic of the survival

principle of the strongest, or we will invent a new communism in a global coordination and cooperation and choose to implement it. The COVID-19 outbreak not only points to the limits of globalization based on market economy, but also shows that the limits of nationalist populism, which insist on the full independence of the state, are more deadly: the slogan of 'America first!' is now over, because America can only be saved thanks to global cooperation and coordination (Zizek, 2020b). When Zizek states about communism, he certainly does not mean old style communism, but mentions that it is a global type of organization that can not only control and regulate the economy, but also restrict the sovereignty of nation-states when needed. Countries could do this in the context of war in the past, and now we are approaching a medical war together (Zizek, 2020a).

Liberal State

According to Henry Kissenger, responses against to the COVID-19 global pandemic at the national level should be replaced by the global cooperation and preparations should be made for the post-epidemic. The USA should prepare a new Marshall Plan in this process, and Europe should not be left alone in the economic sense against the pandemic. In this process, the USA can follow three paths. Global struggle against the pandemic should be supported and resistance should be increased; steps should be taken and pioneered to help eliminate the damage caused by the virus to the world economy; the liberal market should be protected and improved. However, while many old institutions are in a heavy defeat against the virus, someone should also stand out for the leadership. Liberal democracies, which will lead the fight against the crisis, can preserve their superiority and adapt to the new order (Kissenger, 2020 cited by İstikbal, 2020).

Political scientist Joseph S. Nye, Jr. states that the crisis has grown as a result of the wrong decisions made by the leaders during the COVID-19 pandemic. According to Nye, the beginning of the COVID-19 pandemic was an opportunity for transformational leaders. A transformational leader would have realized earlier that the crisis cannot be solved by country acting lonely because it is global by nature. US president Trump and Chinese president Shi missed this opportunity. In a globalizing world, connections are an important source of power. And in an increasingly sophisticated world, the most connected states are the strongest states (Şimşek, 2020, cited by Nye, 2020).

If looked closely, global cooperation and solidarity among countries are emphasized by all intellectuals in order to overcome the pandemic crisis. The problem is that which leader will launch it. In the midst of a global economic, social and ontological crisis, finding a solution seems difficult when there are US and Chinese leaders who still accuse each other of the conspiracy theories that "the pandemic was artificially produced in the lab environment and it was spread".

According to Fukuyama, two different factors emerge critically if one looks at different degrees of success in the countries that are fighting the pandemic. The first is the degree of public capacity related to health workers, emergency teams, infrastructure, and the number of available resources; the second critical factor concerns the degree of citizens' trust in their governments. Whether democratic or authoritative, all people must ensure a high degree of voluntary compliance with the rules of the state. Germany and South Korea are democracies with this degree of trust, and as a result they outperformed most of their neighbours (Fukuyama, 2020). Turkey's achievements and performance during the crisis have also been proven. The World Health Organization has stressed Turkey's success during the pandemic process. Turkey's success stems from science committee and Ministry of Health that manages the crisis, the president's charismatic leadership and though polarized the spirit of solidarity and resistance of the Turkish people in times of disaster and crisis. Turkey, during the crisis gave medical aid to 80 countries and set a global example of solidarity

Showing causality in social behaviour has always been difficult, even for social scientists working with statistics. Even today many conservatives claim that the pandemic "only" killed tens of thousands of people and this situation is comparable to other influenza mortality rates and it is not worth the economic damage caused by measures and restrictions. However, public health experts say that the number of deaths and infections would be much higher, and hospitals would be filled with patients without restrictions. The problem is that we cannot prove the counter factuality/view while many other factors that can clearly explain the outcome are evident (Fukuyama, 2020).

The problem of trust is now in every space of our lives. States do not trust each other. They close their airports to passengers from other countries or quarantine and follow them for a long time. Global solidarity and trust are replaced by the reactions that countries try to solve their problems on their own (Şeker, et al., 2020: 119).

The pandemic is expected to have profound effects on international organizations. For instance, the existence and functions of the World Health Organization seriously began to be questioned; The USA, which provides significant financial resources to WHO, announced that it stopped this resource in April 2020. This situation can be seen as the first sign of the transition towards a new and more functional global health organization (Taştan, 2020: 6). WHO was an international organization established in 1919 during the Spanish Flu. With the global COVID-19 pandemic in 2020, its function began to be questioned.

The COVID-19 pandemic makes it impossible to plan long-term political reform and policies. If something is seen in the long term, it is the fact that nothing is clear in the long term. National emergencies caused by war, invasion, financial crisis or pandemic in human history have allowed for major political

reforms. Welfare state policies started to be implemented with the New Deal applied in the period of Roosevelt who came to power in the USA in 1932 at the end of the Great Depression in 1929 (Fukuyama, 2020). Understanding that low income groups, unemployed and poor are completely unprotected against pandemic and suddenly remembering Keynesian interventions and explaining many economic packages move simultaneously (Arlı, 2020). The pandemic will bring changes in the understanding and practices of social security. With the COVID-19 pandemic, it was seen that lack of social security individuals without economic means is not actually an individual issue, but can easily turn into a systemic problem that concerns the whole society, especially in countries like the USA where individualism is at the forefront (Taştan, 2020: 6). It can be predicted that the ongoing process will force states to take more active roles and take initiatives in health, economy and security; the planner social state implementations will come to the fore in managerial terms (İmga & Ayhan, 2020: 6).

In this context, will the COVID-19 crisis reconstruct the social policies by updating, like the social welfare state practices implemented after the 1929 economic crisis? Or will it be used only as a temporary dressing in the crisis? Time will show that. It is necessary to take human-oriented positive dimensions of every political-economic system and produce hybrid solutions. Pragmatic transitions between paradigms are collage policies of postmodern times. Instead of the motto of the modernity "neither that nor this", "both that and this" approach of postmodernism is to adopt the "anything goes" motto for a livable world. Against the "monist and rigid" policy of modernity, the "plural and fluid" model of postmodernism will be more functional.

Conclusion: Is That A Move Towards A Paranoid-Schizoid Society?

We are going through a traumatic period in which COVID-19 global pandemic affects all contexts within the framework of the individual, institution, state, and society. Daily life practices of the individual will evolve into new normal rules after the pandemic. To protect against the pandemic, it is observed that social isolation, wearing mask and hygiene will be the basis of our life, as it was in the past like the cases in plague and Spanish Flu. Stay at home process has had both positive and negative effects on our family relationships. The transition of the employees working in knowledge-based jobs to the online working order via internet at home and the transition of the students to the online education because of the school closures were the concrete examples of the transition to the IT society which is the society model of the 21st century. Just as the plague caused the end of feudalism in the 14th century, the global pandemic of COVID-19 in the 21st century is filled with concrete indicators of the fact that we are experiencing both the risk society and the surveillance society with the transition to the informatics society.

The relationship between neo-liberalism and the capitalist political-economic structure that is indexed to consumption and exploiting the environment and the emergence of the COVID-19 pandemic is an undeniable fact. The fact that developed countries implementing neoliberal policies could not manage the crisis in the global pandemic and their alienations in anomy in the context of normlesness, anomaly and insecurity brought the paradigm transformation into their agenda regarding their economic policies. In this context, it is argued that states will continue their way either remaining as authoritarian and social state or by taming liberalism.

The surveillance society constructed by pure digitalization based on the internet in our life spaces also produces the paranoid-schizoid society. Internet is the main backbone and icon of globalization and we live with "anxiety", "distrust" and "fear" in our personality since we know that every communication and every transaction on the Internet is "watched", "supervised" and "monitored" by others. This situation leads schizophrenic fragmentations and paranoid-schizoid personality disorder (Bayhan, 2011a: 215-216). In this context, anomy is reproduced in the surveillance society on the basis of distrust, anxiety and meaninglessness. With global terrorist attacks we live in a period when no one has confidence in anyone, and everyone looks at each other with suspicion. For the sake of security, we are turning into a "horror society" where human privacy is neglected, and in all cities, especially in London and New York, everyone is monitored by cameras every moment. We are entering the process of Panopticon inspired by Jeremy Bentham and developed by Foucault (a transparent prison where the observer is not seen, but the prisoners are monitored at all times), where human rights can also be violated paradoxically for the sake of security (Bayhan, 2011b: 154-155). In the period of global pandemic, we are not only confronted with the fact that the state, intelligence services and companies usurped our personal privacy through the internet, but also we face the reality of turning into a paranoid-schizoid society between trust and fear with the risk that everybody may be a virus carrier.

The fact that states close their borders, cancel global relations and transportation to protect from global pandemic has already brought scepticism and introversion. Conspiracy theories and the perception that the virus is produced in the laboratory environment by either China or the USA due to the economic war between the USA and China cause individuals and communities to feel ontological insecurity, fear, anxiety and depression. As in all pandemic periods, a scapegoat is found that spreads the virus. This is usually minorities, refugees and disadvantaged groups in all countries.

With an ambiguous future perception, individuals and governments are constantly marginalizing each other owing to the trauma and shock created by the COVID-19 pandemic. It is high time they transferred into a new nature-friendly production and consumption model with a new contract and also constructed a global solidarity. We must get rid of the illusion that the human being is in the centre of the world and the universe and get rid of the narcissistic

mood and we should produce a new world and universe imagination. If we say with Mevlana's lines:

How wonderful to migrate from one place to another every day
How beautiful to settle in a new location every day
How pleasant to flow without getting icy and murky
Whatever you said, yesterday, my dear
Has gone passed by with yesterday
Right now, you must say new things…

References

Agamben, G. (2020). COVID-19: Gerekçesiz Bir Acil Durumun Yarattığı İstisna Hali (Çeviri: Ö. Karataş) Retrieved from: https://terrabayt.com/dusunce/covid-19-gerekcesiz-bir-acil-durumun-yarattigi-istisna-hali/ (20.05.2020)

Arlı, A. (2020). Pandemi Gözlemleri: İnsan-Merkezci Bilginin Sınırları. Retrieved from: https://tyap.net/pgi (15.05.2020)

Bayhan, V. (2018). Gözetim Toplumu ve Küresel Kentler. II. Uluslararası Şehir, Çevre ve Sağlık Kongresi, *Future Cities*, Full Text Book, Kapadokya, 16-20 Nisan 2018.

Bayhan, V. (2011a). Küreselleşme ve Risk Toplumu. *Sosyologca*, 1, 203-217.

Bayhan, V. (2011b). Sosyoloji ve Anomi: Toplumsal İntihar. *Sosyologca*, 2, 143-162.

Bayhan, V. (2002). Risk Toplumu. *Doğu Batı*, 19, 187-202.

Bayhan, V. (1992). *Enformasyon Toplumunda Kültür 21. Yüzyıla Girerken Kültürel Dönüşümlerin Bazı Belirtileri,* Yayımlanmamış Bilim Uzmanlığı Tezi, İnönü Üniversitesi, Malatya.

Bozkurt V. (2020). Pandemi Döneminde Çalışma: Ekonomik Kaygılar, Dijitalleşme ve Verimlilik, *Kovid-19 Salgınının Ekonomik, Sosyal ve Siyasal Etkileri ve Türkiye'ye Yönelik Öneriler*, İstanbul: İstanbul Üniversitesi İktisat Fakültesi.

Elbek, O. (2020). Korona Günleri (III): Kazanımlar. *Birikim Dergisi*, Retrieved from: https://www.birikimdergisi.com/guncel/10098/korona-gunleri-iii-kazanimlar?fbclid=IwAR3rokgJX79T8Uw6OF6iuMROPR6oUShFlaoiKd_MSBOdDxZgsuxfy0VGPcE (20.05.2020).

Erem, O. (2020). Koronavirüs günlerinde ev içi şiddet artıyor: Kadınlar şiddetten korunmak için neler yapabilir?. *BBC*. Retrieved from: https://www.bbc.com/turkce/haberler-turkiye-52208017 (20.05.2020)

Euronews (2020). Çin'de koronavirüs karantinasında kalan çiftlerde boşanma başvuruları ve aile içi şiddet arttı. Retrieved from: https://tr.euronews.com/2020/03/11/cinde-koronavirus-karantinasinda-kalan-ciftlerde-bosanma-basvurular-ve-aile-ici-siddet-art (20.05.2020)

Fukuyama, F. (2020). Amerikan siyasetinin çöküşünün maliyetleri (Çev: C. Aydın). *Mücerret*. Retrieved from: http://www.mucerret.com/yazarlar/amerikan-siyasetinin-cokusunun-maliyetleri/ (20.05.2020)

Han, Byung-Chul (2020). Viral Olağanüstü Hal ve Yarının Dünyası (Çev: D. Sezer). Retrieved from: https://terrabayt.com/dusunce/viral-olaganustu-hal-ve-yarinin-dunyasi/ (20.05.2020)

Harari, Y. N. (2020). Pandemiden sonra dünyayı ne bekliyor?. *DW Türkçe*. Retrieved from: https://www.dw.com/tr/pandemiden-sonra-d%C3%BCnyay%C4%B1-ne-bekliyor/a-53234488 (20.05.2020)

İmga, O & Ayhan, U. (2020). *Kovid-19 Salgını ve Sonrası Devlet, Demokrasi ve Güvenlik*, Polis Akademisi Yayınları: 93, Ankara.

İstikbal, D. (2020). Habermas tan Kissinger'a Uzmanların Koronavirüs Yaklaşımı. *Kriter*, 46, Retrieved from: https://kriterdergi.com/dosya-guc-dengesinin-degisimi/habermastan-kissingera-uzmanlarin-koronavirus-yaklasimi (20.05.2020)

Klein, N. (2020). Koronavirüs Kapitalizmini Mağlup Etmenin Yolu (Çeviren: Y. Atılgan). Retrieved from: https://www.polenekoloji.org/naomi-klein-ile-video-soylesi-koronavirus-kapitalizmini-maglup-etmenin-yolu/ (20.05.2020)

Lyon, D. (2006). *Gözetlenen Toplum*, (Çev: Gözde Soykan), Kalkedon Yay., İstanbul.

Report on the Surveillance Society (2006). Retrieved from: https://www.surveillance-studies.net/?page_id=3 (10.05.2020)

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). COVID-19 Küresel Salgın Değerlendirme Raporu. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34. Retrieved from: http://www.tuba.gov.tr/files/images/2020/kovidraporu/T%C3%9CBA%20Covid-19%20Raporu%206.%20G%C3%BCncelleme.pdf (07.06.2020)

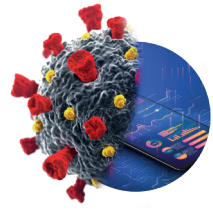
Şimşek, F. (2020). Siyaset bilimci Joseph S. Nye, Jr.: "Koronavirüs gibi küresel tehditler milliyete göre hareket etmez" Medyascope. Retrieved from: https://medyascope.tv/2020/05/10/siyaset-bilimci-joseph-s-nye-jr-koronavirus-gibi-kuresel-tehditler-milliyete-gore-hareket-etmez/ (20.05.2020)

Taştan, C. (2020). *Kovid-19 Salgını ve Sonrası Psikolojik ve Sosyolojik Değerlendirmeler,* Polis Akademisi Yayınları: 90, Ankara.

Zizek, S. (2020). *Pandemic! COVID-19 Shakes the World*, New York and London: OR Books.

Zizek, S. (2020a). Koronavirüsü, Kapitalizme 'Kill Bill-vari' Bir Darbedir, Komünizmin Yeniden İcat Edilmesine Yol Açabilir (Çev: Ö. Karakaş, K. Kırmızısakal). Retrieved from: https://terrabayt.com/manset/zizek-koronavirusu-kapitalizme-kill-bill-vari-bir-darbedir-komunizmin-yeniden-icat-edilmesine-yol-acabilir/ (20.05.2020)

Zizek, S. (2020b). Koronavirüsü Karar Vermeye Zorluyor: Ya Küresel Komünizm Ya Orman Kanunları (Çev: S. Güneş, K. Kırmızısakal). Retrieved from: https://terrabayt.com/dusunce/zizek-koronavirusu-karar-vermeye-zorluyor-ya-kuresel-komunizm-ya-orman-kanunlari/ (20.05.2020)



Environmental and Ecosystem Services in the Post-Pandemic Period

İzzet Öztürk

İsmail Koyuncu

Prof. İzzet Öztürk

Prof İzzet Öztürk received his PhD degree in 1982 from Istanbul Technical University (ITU). Between 1982 and 1984, he made post-doctoral research at the Environmental Engineering Department of Newcastle University, England. In 1994, he was appointed as a Professor at ITU Environmental Engineering Department where he still continues to teach. He has international expertise in water and wastewater treatment, integrated watershed management, integrated solid waste management, and effects of climate change on water resources. Dr Öztürk has more than 300 scientific publications, 15 books, and numerous research/application projects reports, mainly international. He is also a member of Turkish Academy of Sciences (TÜBA).

Prof. İsmail Koyuncu

Prof İsmail Koyuncu, the rector of Istanbul Technical University (ITU), completed his PhD in 2002 in ITU. Since 2010, he has been working as a Professor in ITU Environmental Engineering Department. In 2002-2005, he did post-doctoral studies at Rice University (USA) Civil and Environmental Engineering Department. He has international expertise in areas such as membrane technologies, water and wastewater treatment technologies, and infrastructure engineering. Dr. Koyuncu has more than 300 scientific publications, mainly 4 books, and many research/application projects reports. He is also a member of Turkey Academy of Sciences (TUBA). He also serves as the director of Istanbul Technical University Prof Dincer Topacık National Membrane Technologies Application and Research Center (MEMTEK) since 2014.

Environmental and Ecosystem Services in the Post-Pandemic Period[1]

İzzet Öztürk
Istanbul Technical University
ozturkiz@itu.edu.tr

İsmail Koyuncu
Istanbul Technical University
koyuncu@itu.edu.tr

Abstract
Recently, insufficient infrastructure, poor sanitation & hygiene conditions, air pollution, malnutrition, occupational & environmental infections have increased. The COVID-19 outbreak is the latest of the viral outbreaks that have occurred over the past 20 years. This pandemic is expected to have many effects on international relations, commercial activities, socio-cultural habits, individual behavior patterns and psychological conducts. Another expected effect is likely to be in the environment and ecosystem services implemented in this area. According to the available data and information regarding the corona virus, there is no definite information about COVID-19 being transmitted through domestic wastewater and/or wastewater-interfered waters. In addition, the COVID-19 outbreak does not require additional treatment in the existing municipal water treatment plants in which filtration and disinfection are applied. Final chlorination application is sufficient in terms of microbiological quality and safety of drinking water. After biological wastewater treatment in domestic wastewater, disinfection with UV or ozone is required in order to remove disease-causing microorganisms. It is important for the employees of water, wastewater and solid waste collection, distribution, and treatment facilities to apply appropriate hygiene rules through the use of personal protection equipment preferred by healthcare workers. Measures should be taken against the risk of pathogenic microorganism spreading via microdroplets released from the central wastewater treatment plants located within urban settlements. Joint action plans should be encouraged with the support of voluntary organizations in order to ensure sustainability through protecting worldwide wildlife and ecologically critical reserve areas.

Keywords
COVID-19 pandemic, environment, ecosystem, waste management

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Mankind is the most advanced of all living things on Earth, and the only living creature to dominate his/her environment and other livings. While establishing this domination, continuous interaction with the environment and other living things takes place. Although this interaction often works in favor of mankind, it certainly has various consequences in the medium and long term. Infectious diseases are amongst the most important negative consequences of this interaction, and pandemics related to various human infections have been observed throughout history. The causes of new pandemics can be climate changes and irregularities, demographic and human behavior changes, socio-economic factors, ecological changes, lack of hygiene and sanitation, hospital treatments and resistance problems, alterations in global trade, and travel, wars and microbial adaptation and change. In recent years, especially inadequate infrastructure, poor sanitation and hygiene conditions, air pollution, malnutrition, occupational and environmental infections have increased. Severe Acute Respiratory Syndrome (SARS) followed by the Middle East Respiratory Syndrome (MERS), and finally the 2019 Coronavirus Disease (COVID-19) are among the most important of virus-borne pandemics in the past 20 years. The COVID-19 pandemic has spread to many countries, especially in the Asian region, and reached an international dimension affecting the whole world (Şeker, et al., 2020).

The corona virus pandemic is expected to have many effects, from international relations to the commercial sphere, from socio-cultural habits of societies to individual behavior patterns and psychological conducts. Another expected impact is likely to be in the environment and ecosystem services implemented in this area. The contagiousness of the disease is directly related to indoor air quality and hygiene. Many reports have been published on this subject stating that if SARS-CoV-2 enters the digestive system via mouth, it is expected to be inactivated in the stomach (pH: 1.5-3.5), however, after abdominal pain and

diarrhea symptoms in many patients, virus were detected in tissue samples taken from the digestive system (stomach, small & large intestine). This revealed that the virus can pass from the respiratory system to the digestive system, multiply in the stomach and intestinal tissue to be excreted by feces (Uno, 2020). In many studies, the RNA of the virus has been detected in feces (Gao et al., 2020; Holshue et al., 2020; Jiehao et al., 2020; Tang et al., 2020; Wu et al., 2020; Wölfel et al., 2020; Zhang et al., 2020a), and at least three studies found that the virus in feces is viable (Wang et al., 2020; Xiao et al., 2020; Zhang et al., 2020b). However, fecal-oral transmission has not been proven yet (WHO, 2020).

The genome of the virus was determined in wastewaters taken from the sewage system of many countries, such as Netherlands, Australia, USA, France, Spain, and Turkey. In North America and Europe, the virus genome has been measured as 0.15-141.5 million copies per liter (Hart and Halden, 2020). In a recent study from Turkey, SARS-CoV-2 concentration of 2.89 to 93.3 thousand copies/L were measured at the influents of large wastewater treatment plants in Istanbul (Kocamemi et al., 2020). The q-PCR method used in the measurement of the virus in wastewater studies can detect the virus, but it does not show whether the virus is alive/active. Therefore, the virus should be isolated from the wastewater to be reproduced by the culturing method, although such a study has not yet been reported (Dereli, 2020).

In this study, the current situation of the environment and the ecosystem, projections for the future, the possible negative and positive effects of the pandemic on the services in these fields have been discussed in detail. Finally, findings, suggestions and prospects were also presented.

Environmental and Ecosystem Services

193 member countries of the United Nations (UN) agreed at the General Assembly in September 2015 to transform the world with the "Sustainable Development 2030 agenda (Agenda 2030)". Agenda 2030 is an action plan for humanity, our planet, and prosperity. The member states of the UN have demonstrated their desire and determination to transform the world in a sustainable and robust direction in order to eliminate all kinds of poverty "without leaving anybody behind".

Agenda 2030 includes 17 Sustainable Development Goals, and 169 global indicators related to expected outputs and practices for the period of 2015-2030. The implementation goals and indicators are designed to enable sustainable development to be achieved through social, economic, and environmental aspects.

According to the United Nations General Assembly Decision (64/292) dated June 20, 2010, access of all people to water and wastewater services is one of the

basic human rights. Clean, safe, affordable, accessible drinking water should be provided to everyone (UN, 2014). According to the "Right to Water" report published by the World Health Organization in 2003, the amount required for a person to access water at a basic (minimum) level is 20 L/capita.day; the amount of water required to provide moderate access is 50 L/capita.day and the amount required for optimum access is 100-200 L/capita.day (WHO, 2003).

Sustainable Development Goal 6 (SKA-6) is about ensuring that everyone has full access to clean water and adequate sewerage services and aims to keep the place of interest and sensitivity in these issues alive in the global political agenda. SKA-6 envisages achieving 6 global sub-targets (SKA 6.1-6.6) that are universally accepted and supported (WHO, 2017; Öztürk, 2019).

World Overview
The United Nations (UN) Water Unit has published an assessment (synthesis) report on the current status of SKA-6 indicators in the early 2015-2030 period (UN Water, 2018). The world view that emerged in this report is summarized below:

SDG 6.1 Goal
The ratio of population provided with water supply services managed at basic and safe levels, increased from 81% to 89% in the period of 2000-2015. However, 844 million people worldwide still does not have access to basic water supply services, and 2.1 billion people lack access to safe (clean) water supply services, when needed.

SDG 6.2 Goal
The ratio of population benefiting from basic sewage and hygiene services increased from 59% to 68% in the period of 2000-2015. However, 2.1 billion people worldwide (70% in rural areas) still use shared toilets with other households. 4.5 billion people worldwide still lack clean / hygienic and independent toilet facilities. 892 million people living in the rural areas of Central and South Asia and Sub-Saharan Africa meet their toilet needs in open land. 27% of those living in under-developed countries lack the basic opportunity to wash hands with soap.

SDG 6.3 Goal
59% of domestic wastewater is treated well in high and medium-high income countries. 76% of wastewater flows of the population connected to the sewerage network, and 18% of wastewaters from independent households are subjected to adequate treatment in these countries. The fact that wastewater treatment is still not sufficient even in medium-high income countries affects worldwide water quality negatively.

SDG 6.4 Goal
The added value of water varies in a wide range (2∼1,000 $ / m^3) on a global

scale, and is estimated to be ~15 $/m^3$ on average. Although the added value is low, the water use of the agricultural sector is approximately 70% (average) of the total usable water potential worldwide, while the rate in countries with arid climates can reach up to 90%.

SDG 6.5 Goal

Although the rate of implementation regarding integrated river basin management (IWRM) in OECD countries is approximately ~48% as of 2015, major differences are observed among countries. In the previous century, 70% of all natural wetlands were lost along with the freshwater creatures within. 2016/17 Assessment Report of UN Global Drinking Water and Sewerage Service state that 80% of member countries participating have agreed to increase financial resources in order to accomplish the SDG-6 related goals. Although official development expenditures of the water sector increased from $ 7.4 billion to $ 9.0 billion from 2011 to 2016, the 2030 targets related to SDG 6 are still not achieved. According to the World Bank (WB), the annual investment requirement for reaching the SDG targets by 2030 is approximately ~114 billion $.

Climate change has important impacts on freshwater systems, thus on freshwater management. 1.6 million people died, while 5.5 million people were affected by natural disasters during 1990-2005. Water-related disasters account for for 62% of all natural disaster deaths. Additionally, 96% of population were affected by water-related disasters which also account for 75% of financial losses (~2.5 trillion USD) (UN, 2018).

Turkey Overview

According to Turkey's Eleventh Development Plan (2019-2023) the targets envisaged for Urban Infrastructure are as follows;

- The ratio of municipal population served with drinking water is 100%,

- The ratio of municipal population served by wastewater sewer network is 95%,

- The ratio of municipal population served by wastewater treatment plants is 100%.

According to Turkish Statistical Institute's (TSI) 2018 Environmental Statistics in Turkey as of 2016;

- The ratio of municipal population served with clean & safe drinking water via drinking water network is 98%

(National Environmental Integrated Compliance Strategy target is 100% in 2023),

- The ratio of municipal population served with sewerage network is 90% (National Environmental Integrated Compliance Strategy target is 100% in 2023),

- The ratio of municipal population served with wastewater treatment is 75% (National Environmental Integrated Compliance Strategy target is 100% in 2023).

Access to safe drinking water, and the utilization of sewerage & septic systems in rural areas outside of the municipal boundaries (under the responsibility of Special Provincial Administrations) are estimated to be ~90% and ~65%, respectively (UN, 2018).

The existing statistical data reveal that Turkey can achieve the UN SGD 6 goals for 2030 to a great extent with respect to the OECD countries average. In order for Turkey to meet the SDG 6.4 and 6.5 targets, Turkey is approaching the average of OECD countries through reduction of the agricultural water usage below 65%, and implementation of Integrated River Basin Management (IWRM) (Currently, Watershed Protection Action Plans in all of 25 Basins of Turkey were completed and put into practice, while River Basin Management Plans have been prepared in ~35% of them). Turkey allocates approximately 1.2-1.5% of each year's national income for the Environmental Protection Sector with respect to the SDG targets (Çiçekalan et al., 2019).

Ecosystem Services

United Nations (UN) and World Bank (WB) studies show that the low-income segment is more dependent on food from the ecosystem with its immediate surroundings and likewise provides economic benefits from a wide range of marine and coastal ecosystem services. There are four basic components within the scope of ecosystem services defined by the Millennium (Millennium) Ecosystem Assessment Report (UNEP, 2006); namely supportive, supplier, regulatory and cultural ecosystems are summarized in Table 1.

Fisheries are a critical component of economic wealth or natural capital and, when managed well, can play an important role in reducing economic growth and poverty. Small-scale fishing activities provide valuable protein and livelihoods for the low-income population living on the shore.

Table 1. Ecosystem Services Provided by Coastal and Marine Ecosystems Contributing to the Welfare of Coastal Residents

Ecosystem Service Type	*Ecosystem Service*	*Key Ecosystems Providing Service*
Supportive	*Habitat*	*Coral reefs, mangrove*, sea grass*
	For aquatic life	*Open ocean currents*
	Hydrological cycle	*Coastal forests, wetlands, mangroves*
	Food cycle	*Various coastal ecosystems*
Supplier	*Construction materials*	*Mangrove, coral reefs*
	Fuel (wood and wood coal)	*Mangrove, coastal forests*
	Fishery	*All marine habitats*
	Seafood	*Coastal areas, mangroves*
	Agricultural products	*Coastal areas*
	Other natural products (eg. honey)	*Mangrove, coastal forests*
	Employment and income	*Systems that provide basic preparation*
	Freshwater	*Shallow lagoon*
	Seaweed production	*Coral reefs, beaches*
	Tourism income	
Regulatory	*Erosion protection*	*Muddy coastal benches*
	Storm and flood protection	*Mangroves, coastal vegetation*
	Protection of air and water quality	*Mangrove, coastal forests, coral reefs*
	Waste disposal	*Offshore and tidal currents*
	Climate regulation	*Various coastal ecosystems*
	Pest and disease control	
Cultural	*Cultural identity related to coastal livelihoods*	*Various coastal ecosystems*
	Education and research	
	Heritage value	
	Recreation	

Source: *(Braga et al., 2014)*

** Mangrove is the name given to some types of trees and shrubs that form dense forests in the estuaries, salty marshes and muddy coasts and the forests they form.*

Natural resources (natural stock of assets) are an essential pillar of economic activity and human well-being. Natural resources differ according to their physical characteristics, abundance, countries or regions. Effective management and sustainable use of these resources are crucial for economic growth and environmental quality (OECD, 2014). The main issues in the approach put forward by OECD regarding natural resources are listed below (OECD, 2014);

- ***Availability and quality of renewable natural resource stocks;*** *fresh water sources and forests,*
- ***Availability of non-renewable natural resource stocks;*** *mineral resources, especially metals, industrial minerals and fossil energy carriers,*

- ***Biodiversity and ecosystems;*** *species and habitat diversity and the efficiency of land and soil resources*.

Natural assets stock and economic activities (production, consumption and investment) are directly related. Country policies and opportunities affect both natural resource stock and economic activities.

Many of the natural capital and ecosystem assets are not comfortably measurable values (returns) in economic markets. However, the ecosystem service does not have to be built by nature. Therefore, it is very difficult to clearly observe the values produced by ecosystem services. A study in 1997 developed a system in which current global land uses were divided into 17 categories in order to estimate the total value of ecosystem services. The primary distinction in this system is on marine and terrestrial systems. value has been calculated as as $ 33 trillion in the study carried out by Costanza et al. (1997). This value has been updated to $ 125 trillion considering the biome field and unit price changes over the years and through completing the biome field data obtained in the first study.

In the updated study, the extent to which biome area changes during 1997-2011 affected the economic value of the ecosystem has also been presented. The loss of ecosystem services resulting from the changes in land use is estimated to be $ 4.3-20.2 trillion (Costanza et al., 2014). Ecosystem services are one of the most important factors contributing to public welfare worldwide. Today's level of welfare increases in direct proportion with the necessary weight given to natural capital. The value of global ecosystem services is estimated to be approximately 4.5 times the GNP worldwide as of 2000 (Costanza et al., 2014). In the future, as the services to be provided by natural capital and ecosystem will be more limited, their value will inevitably increase. If unforeseen natural disasters happen, these values will become invaluable.

Damage of ecosystem due to human activities such as deforestation, urbanization, industrial activities, intensive agriculture, aquaculture, and intervention in river systems causes habitat loss. There exist buffer zones that serve as boundary between human activities and areas where biodiversity needs to be protected. As these buffer zones disappear or change over time, a dangerous rapprochement can occur with species that should not be intertwined with humans. All regions where human elements and wildlife begin to unite become a potential center for pandemic. A report prepared by the Wildlife Conservation Foundation (WWF) stated that since 1970, the loss in mammals, birds, fish and reptiles has reached a very high level of 60% (WWF, 2018). Interference with wildlife habits can lead to an exchange of microorganisms between humans and other species. These microorganisms, which are not harmful to wild species, may become deadly pathogens for humans (Carrington, 2020). The destruction caused by Ebola, which is linked to bat species and has reached a deadly level in humans and primates, is associated with deforestation in the Sub-Saharan African region.

It is known that climate change is the driving force of migration for many species. Living things migrate latitudinal to north and to higher altitudes in the mountainous areas due to rising temperatures. As a result, pathogens can spread to larger areas through such migrations. Since every living creature cannot migrate at the same speed, the risk of pathogens infecting new hosts also increases, as the vectors and hosts of pathogens are spreading. The fact that certain diseases transmitted via mosquitoes, such as Zika or West Nile Virus, have started to occur in geographies where they have not been observed before is proof of this situation. It is almost impossible for species that migrate due to climate change not to cross paths with humans, thus more pathogens are expected to reach mankind in the future. In this context, an increase is expected not only in pathogens that cause human diseases, but also in diseases and pests transmitted to plants and animals. This also leads to a reduction in food production, triggers the food crisis and in addition, affects soil and water pollution as more chemicals will be used to combat pests.

Many ecosystem services today are associated with engineering infrastructure. Considering solely the water system, engineering infrastructure is utilized in services such as clean water supply, wastewater collection, treatment & disposal, flood control, and recreational facilities. The most economical alternative among the options planned for creating a more effective living and working environment, especially in urban areas, is to combine established (built / artificial) and natural infrastructures. One of the main reasons for developing infrastructure is to design, operate and ensure the sustainability of the system that is compatible with nature, which minimizes negative externalities at a lower cost than traditional foreign investments.

Municipal Solid Waste Management

Municipal Solid Wastes (MSW) generally consist of two main components: recyclable/recoverable wastes (packaging wastes, newspaper/magazine papers), and other wastes (kitchen and garden wastes etc.). Packaging waste can be easily recycled through a well-established dual collection system. Kitchen, garden and marketplace wastes can simply be recycled via composting. The most important factors affecting waste generation and its components are the geographical location of the settlement, its socio-economic structure, available energy resources, and seasonal changes. These factors are also related to the level of unit national income (per capita) of countries (Twardowska et al., 2004).

Nowadays, legal legislation has been developed for recyclable components within the MSW, which envisages the achievement of certain targets. For example, the US National Environmental Protection Agency's (EPA) total packaging waste recycling rate target in 2000s was 35% as some states had already reached 50% (Vesilind et al., 2002). The packaging waste recycling rate target for EU countries in 2013 was 60%. The recycling/recovery target foreseen for 2020 in the Packaging Waste Regulation of the TR Ministry of Environment and Urbanization is 60% in line with EU.

According to the report prepared by Hoornweg and Bhada-Tata (2012) for the World Bank, solid waste generation is highest in OECD countries. The average waste generation rate in OECD countries, including many developed countries, is around 2.2 kg/capita-day. As of 2012, OECD countries constituted 44% of the total waste generation in the world with 572 million tons. Solid waste treatment technologies applied across the EU reveal that 33% of MSW is disposed of via incineration, composting, recycling and landfilling. Only in the case of Romania, almost all of MSW is disposed of in landfills. As of 2012, the amount of MSW diverted to landfills has been set to zero in Germany and Switzerland through the use of waste management technologies. The amount of MSW directed to landfill is <5% in Belgium, Sweden, the Netherlands, Austria, Denmark, and Norway. On the road map of the EU Commission's 7th Environmental Action Plan, it is foreseen that the amount of MSW directed to landfilling in EU states will completely be reset as of 2030 (Kozmiensky, 2014; Öztürk, 2015).

The EU Circular Economy changes were published in June , 2018, to come into effect in the preceding month Accordingly, by 2035;

- *Recycling 65% of MSW (Interim Goals: 55% in 2025, 60% in 2030)*
- *Storage of maximum 10% of urban solid wastes,*
- *Recycling 75% of packaging waste,*
- *Recycling 55% of plastic packaging waste (2025),*
- *Recycling 75% of wood packaging waste,*
- *Recycling 85% of iron-based metal packaging wastes,*
- *Recycling 85% of aluminum packaging waste,*
- *Recycling 85% of glass packaging waste,*
- *Recycling 85% of paper / cardboard packaging wastes has been targeted (Sayman, 2019).*

TR Ministry of Environment and Urbanization published the Zero Waste Regulation in July 2019 (MEU, 2019). The purpose of the regulation is to cover the general principles regarding the establishment, dissemination, development, monitoring, financing, recording, and certification of the zero-waste management system that aims to protect the environment, human health, and all resources in waste management processes in line with the principles of efficient management of raw materials, natural resources, and sustainable development. According to the regulation, local administrations are divided into 3 groups and local administrations are foreseen to switch to Zero Waste Management System starting from 2021 until the end of 2022. Buildings and campuses are divided into 4 groups, and it has become compulsory to establish a zero-waste management system for public institutions and organizations starting from mid-2020 till the end of 2022.

Effects of Virus Pandemic on Environment and Ecosystem Services

Wastewater Collection Systems and Treatment Plants

Wastewater has been the source of many diseases and pandemics throughout history due to containing many pathogenic microorganisms (bacteria and viruses) (Waller, 2013). According to WHO estimates, today, ~120,000 people die from cholera every year due to untreated or poorly treated wastewater mixed with drinking water sources. The concentration of SARS-CoV-2 virus in domestic wastewater can be measured in many countries, including our country, by q-PCR method. Although this method does not show whether the virus can cause active / live disease, it is thought that this method can be used to determine in which parts of the city is concentrated with COVID-19. For example, the trace of SARS-CoV-2 could be measured in wastewater three weeks prior to the clinical detection of the first case in the Netherlands (Medema et al., 2020). This indicates that wastewater monitoring systems can be used as an early warning system. In this method known as wastewater-based epidemiology, wastewater of a society, is considered as a collective example not a person-based (Eraydın, 2018). Wastewater carries traces of the lifestyle of a society. Therefore, it is possible to reach a lot of information about the society (eg nutritional habits, addictions, drug use) by following only some parameters in wastewater. In many countries, including Turkey, wastewater-based epidemiology, is used to monitor the illegal drugs and drug addiction in sewers. In the future, techniques and analysis methods used in wastewater epidemiology are expected to be among the standard monitoring components of wastewater collection and treatment systems.

According to the available information, the risk of SARS-CoV-2 contamination from wastewater appears to be quite low (WHO, 2020). An indicator of this is that the staff working in wastewater sewage and treatment plants, which can be described as high-risk groups, did not have a statistically significant level of disease. Transmission routes of COVID-19 are water droplets, aerosols and contact. In this regard, the units where the aerosols are spread (screens, pumping stations, inlet structures, grid chambers) in wastewater treatment plants are places where the risk of contamination can be high, and the personnel working in these units must take precautions and use personal protective equipment. In addition, aerosols and water droplets that may occur during aeration in activated sludge systems pose a risk for the transmission of viruses and other pathogenic microorganisms. If ventilation is done mechanically, the risk increases even more. In this regard, especially covering the grid chambers and aeration tanks and collecting and treating the scented gases in a central deodorization unit will reduce the mentioned risk (Dereli, 2020).

It is very important for the environmental staff who perform routine analysis in wastewater treatment plant laboratories, and for academicians and students who conduct experimental work with raw and / or treated wastewater in university laboratories should take care of hygiene not to be affected by infectious diseases caused by wastewater. In the COVID-19 pandemic,

personnel performing maintenance and repair of sewer lines are at risk as well. Sewage connections of hospitals, especially where COVID-19 patients are treated, are at risk. Unless necessary in this process, it is recommended that maintenance should not be performed in wastewater lines, pumping stations and personnel should not be placed in sewage manhole. The consumption of wet wipes and gloves used for personal cleaning (hygiene) and precaution in COVID-19 pandemic has increased considerably. Disposal of these materials to the toilet can cause clogging of sewer lines, wastewater treatment plant pumps and screens. This situation has been observed especially in the USA and has caused important operational problems in wastewater treatment plants.

Viruses encountered in wastewater are mostly intestinal based (enteric) envelope-free viruses. Such viruses are more resistant to environmental factors than corona viruses. Viruses are eliminated to a certain extent in many levels of conventional wastewater treatment plants. The removal efficiency of viruses at treatment plants may vary depending on the type of virus, the design parameters of the facility and the operating conditions (eg. sludge age, hydraulic retention time). In the literature, scientific studies related to virus removal efficiency of different processes of treatment plants are very limited. In a study conducted in the Netherlands, removal of f-bacteriophage virus was measured as 1,3- and 2,1-log removal efficiency in two treatment plants using conventional activated sludge process (Barrios-Hernández et al., 2020). In the activated sludge process, bacteria secrete a high amount of RNA degrading (Ribonuclease) enzyme, and an RNA virus such as SARS-CoV-2 is highly likely to be biodegradable in secondary treatment. Studies carried out in the Netherlands, SARS-CoV-2 could not be detected at the exit of the wastewater treatment plants (Dereli, 2020).

Due to their enveloped structure, coronaviruses are highly susceptible to environmental / external influences compared to intestinal-borne viruses (adenovirus, norovirus, rotavirus and hepatitis A) in wastewater. High temperature, low or high pH, sunlight and disinfectants cause rapid death of the virus. The most important process that provides virus removal in wastewater treatment plants is disinfection. Disinfection in wastewater is preferably done by UV-rays or ozone (Tchobanoglous et al., 2013). A total of 4-log removal should be provided throughout the facility for an effective bacteria and virus removal. Even though there is no study in the literature about disinfection of SARS-CoV-2 yet. However, there are some studies on SARS-CoV-1, a similar virus. Wang et al. (2005) reported that the SARS-CoV-1 virus was completely inactivated at a concentration of 10 and 20 mg/L chlorine within 10 minutes and 1 minute, respectively.

In order to obtain an effective disinfection, the suspended solids concentration should be low at the exit of the treatment plant. The suspended solid contains virus and other pathogenic microorganisms and provides protection against the effects of disinfectants. Therefore, the final settling tanks of the treatment plant should be well operated and the amount of

flock escaping from the sluices should be low (AKM <10-20 (max 30) mg / L). The most common disinfection method used in wastewater treatment plants is UV. When this process is designed and operated correctly, it can inactivate bacteria and viruses with high efficiency. When the UV dose is 44 mJ / cm^2, 3-log (99.9%) inactivation can be achieved for poliovirus-1 and rotaviruses (Health Canada, 2019). In UV systems, adenoviruses at a dose of 40-199 mJ / cm^2 can be removed up to 3-log (99.9%) (USEPA, 2006). In only 53 of the 603 wastewater treatment plants in Turkey have a disinfection unit. Only 42 of the 221 plants used for irrigation are disinfected (TR Ministry of Agriculture and Forestry, 2020). According to the researches of the Ministry of Agriculture and Forestry, only 13 of these 42 units are operated. In addition, it was found that irrigation water criteria could not be met microbiologically in 4 plants that operate disinfection units (Ministry of Agriculture and Forestry, 2019). In our country, there is a big deficiency in the disinfection of wastewater. This situation poses a great risk for public health.

Another risky process in wastewater treatment plants is the processing of excess sludge. Although the activated sludge process can remove many viruses up to 2.5-log, the sludge generated can still contain high amounts of bacteria and viruses. Biological, chemical and thermal processes are used to stabilize the sludge. High temperatures applied in thermophilic anaerobic digestion and composting from biological processes inactivate many pathogenic microorganisms, including viruses. For example, the SARS-CoV-1 virus is completely inactivated above 56 °C. The high pH (> 10) formed during the lime stabilization method also inactivates other pathogens such as coronaviruses. Sludge drying and burning processes thermally kill all pathogens. In this regard, the agricultural use of properly stabilized sludge does not pose a high risk for COVID-19 and other diseases. The riskiest processes in terms of COVID-19 contamination are the thickening and dewatering of the raw sludge. In this context, environmental personnel responsible for maintenance, repair and operation of equipment such as sludge pumps, centrifuge, press filter and belt filter should use personal protective equipment, pay attention to hand hygiene and do not put their hands on their faces.

Water Intake Structures, Treatment Plants and Distribution Networks

Coronaviruses are very sensitive to disinfection due to their envelope structure. For example, SARS-CoV-1 is completely inactivated at 10 mg / L chlorine dose and 10 minutes contact time (Wang et al., 2005). To remain on the safe side, it is recommended to reach 30 minutes contact time and 0.5 mg/L free residual chlorine concentration (WHO, 2020). Disinfectants (chlorine, chlorine dioxide and ozone) and doses used in drinking water treatment plants are quite sufficient to remove SARS-CoV-2 and other viruses. In this regard, the risk of COVID-19 contamination from drinking water treated in conventional surface and water treatment processes (filtration + disinfection) is very low. In this context, disinfection process is indispensable for the microbiological safety of water in drinking water treatment plants and emergency response is required for the problems that may occur in this process. Therefore, the units and

equipment required for disinfection must be redundant. In addition, there should be temporary storage units in the facility for disinfection chemicals against possible problems and delays in the supply chain.

In order to maintain the microbiological safety of the water supplied to the City/Drinking Water Network for a long time, it is recommended by WHO to have at least 0.5 mg/L free residual chlorine at each point of the network (WHO, 2020). For microbial safety of drinking water, it should be checked regularly that there is enough free chlorine at every point in the network. Shock chlorination should be applied for a certain period of time to the water supplied to the network after failure / maintenance.

Receiving Water Bodies / Resources

Coronaviruses can survive for more than 10 days in lake waters at 25°C. It is considered that SARS-CoV-2 will be similar to other coronaviruses, although there is no scientific study regarding the survival time in surface waters. According to the guidance document published by WHO, SARS-CoV-2 and other coronaviruses have not been detected in groundwater and surface water sources used for drinking water until now (WHO, 2020). In this regard, the risk is very low. However, there are three important issues that may affect the chemical and microbiological quality of our surface waters in terms of public health.

The first of these important issues is the untreated domestic wastewater discharges to surface water resources. The ratio of the municipal population connected to treatment plants to the total municipal population of Turkey is 79% according to data for 2018 (TUIK, 2020). The Ministry of Environment and Urbanization plans to fill the gap in this area by 2023. Another issue is the treated wastewater discharges to surface waters (river, lake, dam). For example, 50 of 603 WWTPs in Turkey (flow> 2000 m3 / day) is discharged to the receiving water bodies used as irrigation reservoir. The total flowrate of these facilities is around 1.4 million m3/day which correspond to 8% of the daily amount of wastewater discharged in Turkey. In addition, only 8.8% of the existing wastewater treatment plants have a disinfection unit (TR Ministry of Agriculture and Forestry, 2020). Finally, it should be mentioned that the wastewater channel networks, which are operated as a combined system, is very important. The capacity of existing sewage systems, and central wastewater treatment plants may be insufficient for certain periods of time, especially ddue to high precipitation regimes changing with the effect of climate change. In this case, some of the rainwater contaminated with domestic wastewater is discharged into surface waters without treatment from combined sewer system. These discharges that may occur in extremely rainy weather conditions, contaminate surface waters microbiologically and pose a risk to public health (Samsunlu, 2020).

Water and Sewerage Administrations

In pandemics similar to COVID-19, risk analysis and emergency action plans should be made considering that a significant portion of the personnel of the

water and sewage administrations can get sick. In Italy (Rome) and England (South West Water), where the COVID-19 pandemic was very effective, there was a 1-9% loss of workforce in the water and sewage administrations. Only 2 people from 1200 staff of the Washington (USA) Water and Sewerage Administration got sick. There has been no sick from the staff of the Water and Sewerage administrations in Shanghai and Hong-Kong cities of China. This situation may vary depending on the measures taken and working conditions. It should be considered that not only the sick personnel but also the personnel who come into contact with a person who has a positive COVID-19 test should isolate him for 14 days and cannot come to work within this period.

Water and wastewater treatment plants are systems operating 24 hours a day, seven days a week. In the future, the level of automation in the facilities should be increased to better combat such pandemics. In this case, staff will be less at risk. One of the biggest effects of the COVID-19 pandemic is that distance work becomes very important as a requirement of physical isolation. Considering that the 21st century is the age of information and communication; it is a fact that the opportunities for remote and flexible work have increased considerably. Like many private companies, water and sewage administrations need to establish infrastructures that will enable them to provide these services remotely for non-critical and remote works (invoice collection, customer service and call centers, etc.). In this way, the number of personnel that should be physically present in the offices can be reduced and thus, possible contamination will be prevented

Under pandemic conditions, equipment and chemical supply chains of water and sewerage administrations may experience disruptions and delays. Especially in order to carry out disinfection processes, tanks that will allow the necessary chemicals (chlorine, chlorine dioxide, parasitic acid, etc.) to be stored in the facilities for at least two weeks must be available. In addition, support should be given to the production and supply of critical chemicals and equipment by domestic manufacturers. In this way, both domestic production is supported and risks and delays that may arise in supply from abroad can be reduced. In addition, considering the problems that may be experienced in the supply of personal protective equipment (mask, gloves, glasses, face shield, apron, boots, etc.) that the personnel will need, these equipments should be stocked in sufficient number. It is important to inform the public about the cleanliness and safety of drinking water correctly and transparently in cases of pandemics and emergencies, especially in order to prevent misinformation that can be spread from social media. Therefore, water and sewerage administrations should keep their communication channels open and build trust by providing necessary information to the public on time.

Many infectious diseases (typhoid, cholera, giardiasis, dysentery, hepatitis A) are caused by wastewater and are transmitted through wastewater mixed with drinking water sources when there is not enough treatment. Wastewater treatment plants protect public health along with environmental and clean

water resources. Although we are not aware of these facilities, it is necessary to be aware that they have a very important role in our lives and to increase the awareness of the public on the subject. Therefore, water and sewage administrations should enlighten their subscribers through training programs, technical trips, written and visual media organs and social media campaigns.

The revenue of subscribers and service providers is expected to be evident in the COVID-19 pandemic process. For example, the collection/accrual rate of water and sewage administrations in Brazil decreased from 95% to 70%. In India, the collection has stopped completely. In Italy, it is expected that water consumption will decrease by 5-15% and revenue of water and sewage administrations will decrease by 10-30% in 2020. Due to the pandemic in water administrations, an income loss of 201.6 billion (5-6 $/capita.year) is expected in 2020 (AWWA, 2020). It is also expected that the revenue of water and sewage administrations in Turkey will also reduce by 20-30%.

Ecosystem Services

In the corona virus pandemic period, the pollution emission pressure on the ecosystem has decreased greatly in all continents and countries due to the huge slowdown and capacity decrease experienced in global industrial, tourism and transportation activities since February 2020. The reduction in pollutant emissions released into the nature has also been reflected in the quality of air and aquatic environment, with significant improvements in environmental quality, especially in most cities and rivers known for intense air and water pollution. This is evidenced by satellite images (Wuhan), local observations (Ergene) and quality measurements (Istanbul). In this period, especially the aquatic ecosystem feasted with its dolphins and birds. If the disruptive effects and activities created by human beings can be controlled effectively, it is in the eyes of the human world that the ecosystem can restore itself in a very short period of time.

As mentioned earlier, ecosystem assets in the world grant humanity every year 4-5 times the economic value of the total national income of the world countries (Constanza et al., 2014). In order for such a large and important natural wealth to be preserved and transferred to the next generations in a sustainable manner by considering the balance of protection and use, the waste habits at every level of life should be minimized with the concept of circular economy. Preservation of ecosystem assets and services, considering the needs of the next generations, necessitates cooperation with a much more effective and sincere international cooperation on a global scale than today. The sincere expectation of all intelligent owners is the normalization of the introverted and non-cooperative attitude exhibited by the rich and industrialized countries around the world due to the corona virus pandemic.

Urban Solid Waste Management

In the corona virus epidemic process, there was a significant increase in the production of packaging (food and clothing) and disposable medical

equipment (mask, gloves, injector, overalls, face shield, etc.), despite the huge decrease in domestic commercial and industrial waste production. Such wastes (other than health facilities), which must be managed as infected medical wastes, are collected, and disposed with significant domestic wastes. Additional infected wastes related to the pandemic in health facilities have reached the levels that will force the Municipalities Medical Waste Disposal (Sterilization / Incineration) capacity. Outbreak period virus-contaminated wastes collected and removed together with urban wastes also led to an increase in the pathogenic microorganism burden of such wastes. Considering the fact that municipal solid waste disposal via landfill waste collection and disposal is very high (75%) in Turkey, taking the protective/personal health (mask, goggles, visor, gloves, etc.) measures with the highest sensitivity in the waste collection and disposal process has become even more important for this section at risk before the pandemic. In this context, accelerating the process of rehabilitating and shutting down the Irregular Landfill Facilities and switching them to Regional Landfill facilities has become critical in the operation of landfill facilities.

In the post-pandemic period, in line with the Circular Economy strategy, which has become widespread around the world, packaging and biodegradable waste recovery is expected to be accelerated in the waste management sector and the amount of waste going to Landfill for final disposal is minimized. In this context, Turkey's waste recycling and processing (mechanical, biological treatment, composting and thermal treatment) is needed to increase the capacity starting from the Metropolitans. 'Zero Waste' and paid plastic bag applications carried out by the Ministry of Environment and Urbanization are expected to provide a 35% reduction in the amount of waste going to the Landfill Until 2023 (MEU, 2017).

The New Normal in Environment and Ecosystem Services: Findings, Suggestions and Prospects

The findings, suggestions and prospects related to the New Normal Period following the corona virus (COVID-19) pandemic within the framework of the issues mentioned in the previous sections can be summarized as follows:

- *Current data and information related to corona virus enable the detection of the virus RNA by q-PCR method, yet it does not show the presence of live/ active COVID-19 in domestic wastewaters. Therefore, there is no definitive information about COVID-19 being transmitted through domestic wastewater and / or wastewater-induced waters (WHO, 2020).*
- *In the existing central water treatment plants where filtration and disinfection processes are applied, there is no need for additional treatment due to the COVID-19 outbreak. In water treatment plants (WTPs), the final chlorination application with a total residual chlorine level of ≥ 0.5 mg/l maintained at every point of the water distribution network is sufficient in terms of microbial quality, and safe potable drinking water.*

- *After biological wastewater treatment, it is necessary to apply disinfection with UV or ozone in order to remove pathogenic microorganisms in discharges to water bodies used or intended for human consumption, irrigation, swimming and recreational sports. Starting from the municipal WWTPs with a large capacity (> 10000 m^3/day), it is important to eliminate deficiencies in this area. However, problems in rural settlements with insufficient and/or non-existent wastewater infrastructure need to be eliminated in terms of controlling water-borne diseases.*
- *corona-virus epidemic has made the application of "mask, social distance, hygiene" principles a mandatory arragement currently in order to control the transmission of the disease around the world. It is expected that the habit washing hands at WC, which has decreased to 50% even in some industrialized countries before the pandemic, will reach the required level (> 95%) with the public awareness gained during COVID-19 measures. In this context, it is important that the employees of water, wastewater and solid waste collection, distribution and treatment facilities should use personal protective equipment apply the same set of hygiene rules as of healthcare workers.*
- *The entrance structures of the central wastewater treatment facilities located within cities -especially in the ones located in the near proximity of residences and workplaces- the grid chambers and the aeration units should be covered, and necessary odor treatment systems should be installed. Accordingly, the risk of pathogenic microorganism spreading by micro-droplets (aerosols) released from wastewater to the environment will be minimized.*
- *Digital technologies based on big data analysis and artificial intelligence applications in the water, wastewater and solid waste sectors, especially in the process control of water treatment facilities, pressure and residual chlorine control in the water distribution networks, and flood alarm and waste collection vehicles fleet management are expected to become widespread following the COVID-19 outbreak.*
- *As in the health sector, importance should be given to developing domestic and national opportunities regarding the provision of critical equipment, hardware and software in Environment and Ecosystem services, and current resistance and bureaucratic obstacles in practice should be removed immediately.*
- *Significant improvements were observed in water, air and ecosystem quality indicators due to reduced transportation, tourism, and industrial activities during the corona virus epidemic period. This situation clearly shows that if the pollutant emissions in these areas can be effectively controlled, the pessimistic overview observed in many parts of the world during the pre-pandemic period can be restored in a short time. This situation is expected to preserve keeping the need for effective global cooperation, especially in the reduction of greenhouse gas emissions & utilization of plastics, and the elimination of global deficiencies in the UN SDG 6 field.*
- *Unfortunately, global solidarity and cooperation required during COVID-19 pandemic period were not provided excluding exceptional behavior by very few countries along with Turkey. It is hoped that the extraordinary protective and*

decomposing air observed in the pandemic period will be rapidly dispersed and the global cooperation ground for the solution of common problems of humanity and the planet are established.

References

AWWA (2020). *The Financial Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities*. American Water Association Works

Barrios-Hernández, M.L., Pronk, M., Garcia, H., Boersma, A., Brdjanovic, D., van Loosdrecht, M.C.M. and Hooijmans, C.M. (2020). Removal of bacterial and viral indicator organisms in full-scale aerobic granular sludge and conventional activated sludge systems. *Water Research* X 6, 100040.

Braga B., Chartres, C., Cosgrove, W.J., da Cunha L.V., Gleick, P.H., Kabat, P., Kadi, M.A., Loucks, D.P., Lundqvist, J., Narain, S. & Xia, J. (2014). *Water and the Future of Humanity: Revisiting Water Security*, Calouste Gulbenikan Foundation, Gulbenkian Think Tank on Water and the Future of Humanity, Lisbon: Springer.

Carrington, Damian, (2020). Coronavirus: 'Nature is sending us a message', says UN environment chief, *The Guardian*. Retrieved from: https://www.theguardian.com/world/2020/mar/25/coronavirus-nature-is-sending-us-a-message-says-un-environment-chief?CMP=share_btn_tw (19.04.2020).

Costanza, R., d'Arge R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Limburg, K., Naeem, S., O'Neill, R.V., Paruelo, J., Raskin, R.G., Sutton, P., van den Belt, M. (1997). The Value of the World's Ecosystem Services and Natural Capital, *Nature*, 387i.

Costanza R., de Groot R, Sutton P, van der Ploeg S, J. Anderson S., Kubiszewski I., Farber S., Kerry Turner R. (2014). Changes in the global value of ecosystem services, *Global Environmental Change*, 26, 152–158.

Çiçekalan B., Özgün H., Öztürk, İ. (2019). Türkiye'de ve Dünyada Çevre Koruma Harcamalarının Mukayeseli Değerlendirmesi, *Konya Mühendislik Bilimleri Dergisi,* 7(4), 729 – 741.

ÇŞB (2017). *Ulusal Atık Yönetimi ve Eylem Planı 2023*.

ÇŞB (2019). *Sıfır Atık Yönetmeliği*, Resmi Gazete No: 30829.

Dereli, R. K. (2020). Koronavirüs Pandemisinin Su-Atıksu Politikalarına Etkisi, (Yayınlanmamış İnceleme Raporu).

Eraydın, A. (2018). Halk sağlığını izlemek için kanalizasyona bakmak. Retrieved from: https://www.dunyahalleri.com/halk-sagligini-izlemek-icin-kanalizasyona-bakmak/ (16.05.2020)

Hart, O.E., & Halden, R.U. (2020). Computational analysis of SARS-CoV-2/COVID-19 surveillance by wastewater-based epidemiology locally and globally: feasibility, economy, opportunities and challenges. *Science of the Total Environment* 730, 138875.

Health Canada (2019). *Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Enteric Viruses*. Water and Air Quality Vureau, Healthy Environments and Consumer Safety Branch, Health Canada, Canada, Ottawa, Ontario.

Holshue, M.L., DeBolt, C., Lindquist, S., Lofy, K.H., Wiesman, J., Bruce, H., Spitters, C., Ericson, K., Wilkerson, S., Tural, A., Diaz, G., Cohn, A., Fox, L.A., Patel, A., Gerber, S.I., Kim, L., Tong, S., Lu, X., Lindstrom, S., Pallansch, M.A., Weldon, W.C., Biggs, H.M., Uyeki, T.M., Pillai, S.K. (2020). First case of 2019 novel coronavirus in the United States. *N. Engl. J. Med.* DOI: 10.1056/NEJMoa200119.

Kocamemi, B.A., Kurt, H., Hacioglu, S., Yarali, C., Saatci, A.M. and Pakdemirli, B. (2020). First Data-Set on SARS-CoV-2 Detection for Istanbul Wastewaters in Turkey. *medRxiv*, 2020.2005.2003.20089417.

Kozmiensky, K. T., Thiel, S. (2014). Waste Management (Vol. 4), *Waste-to-Energy,* TK Verlag Karl Thome-Kozmiensky.

Jiehao, C., Jing, X., Daojiong, L., Lei, X., Zhenghai, Q., Yuehua, Z., Hua, Z., Xiangshi, W., Yanling, G., Aimei, X., He, T., Hailing, C., Chuning, W., Jingjing, L., Jianshe, W., Mei, Z., Children, N., Women, H., Central, S., Zeng, M. (2020). A case series of children with 2019 novel coronavirus infection: clinical and epidemiological features. *Clin. Infect. Dis*.

Medema, G., Heijnen, L., Elsinga, G., Italiaander, R. (2020). *Presence of SARS-Coronavirus-2 in sewage*. DOI: 10.1101/2020.03.29.20045880.

OECD (2014), Green Growth Indicators (2014). *OECD Green Growth Studies*, OECD Publishing. DOI: 10.1787/9789264202030-en.

Öztürk, İ., (2015). *Katı Atık Yönetimi ve AB Uyumlu Uygulamaları*, İSTAÇ Teknik Kitaplar Serisi Yayımı.

Öztürk İ. (2019). *Su, İklim Değişimi ve Ortak Geleceğimiz*, Türkiye Su Enstitüsü, (SUEN).

Samsunlu, A. (2020). İstanbul'da mevcut yağmur suyu kanalizasyon hattı durumu ve sorunlar. *Su ve Çevre Teknolojileri,* 142, 28-38.

Sayman, R.Ü. (2019). *Döngüsel Ekonomi ve Türkiye*, 2019 Atık Yönetimi Zirvesi, 24-28 Şubat 2019, Antalya.

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). *COVID-19 Küresel Salgın Değerlendirme Raporu*. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34. Retrieved from: http://www.tuba.gov.tr/files/images/2020/kovidraporu/T%C3%9CBA%20Covid-19%20Raporu%206.%20G%C3%BCncelleme.pdf (10.06.2020)

Tang, A., Tong, Z., Wang, H., Dai, Y., Li, K., Liu, J., Wu, W., Yuan, C., Yu, M., Li, P., Yan, J. (2020). Detection of Novel Coronavirus by RT-PCR in Stool Specimen from Asymptomatic Child, China. *Emerg. Infect. Dis.* DOI: 10.3201/eid2606.200301.

Tarım ve Orman Bakanlığı Su Yönetimi Genel Müdürlüğü (2019). *Kullanılmış Suların Yeniden Kullanım Alternatiflerinin Değerlendirilmesi Projesi*, Ankara.

Tarım ve Orman Bakanlığı Su Yönetimi Genel Müdürlüğü (2020). COVID-19 Virüsünün Bulaşma Riskinin Kullanılmış Suların Yeniden Kullanılması Perspektifinden Değerlendirilmesi. *Su ve Çevre Teknolojileri*, 142, 56-62.

Tchobanoglous, G., Burton, F. L., Stensel, H. D., & Metcalf & Eddy. (2003). *Wastewater engineering: Treatment and reuse*. Boston: McGraw-Hill.

TÜİK, (2020). *Belediye Atıksu İstatistikleri,* Atıksu Arıtma Tesisi ile Hizmet Verilen Belediye Nüfusunun Toplam Belediye Nüfusuna Oranı.

Twardowska, I., Allen, H.E., Kettrup, A.A.F., Lacy, W.A. (2004). *Solid Waste: Assessment, Monitoring and Remediation,* Elsevier, London, UK.

UN (2014). Water for Life Decade- Human Right to Water. Retrieved from: https://www.un.org/waterfo rlifedecade/human_right_to_water.shtml (16.05.2020)

UN (2018). *Sustainable Development Goal 6 Synthesis Report on Water and Sanitation*, Clean Water and Sanitation.

UNEP (2006). *Marine And Coastal Ecosystems and Human Well-Being: A Synthesis Report Based on The Findings of The Millennium Ecosystem Assessment*, Nairobi, Kenya: UNEP.

Uno, Y. (2020). Why does SARS-CoV-2 invade the gastrointestinal epithelium? *Gastroenterology*.

UN Water (2018). *World Water Development Report- Nature Base Solutions for Water,* Paris, France.

USEPA (2006). *UV Disinfection Guidance NManual fort he Final Long Term 2 Enhanced Surface Water Treatment Rule*. Federal Register.

Vesilind, P.A., Worrell, W.A., Reinhart, D.R. (2002). *Solid Waste Engineering,* Brooks/Cole, Pacific Grove, USA.

Xiao F, Tang M, Zheng X, Liu Y, Li X, Shan H. (2020). Evidence for gastrointestinal infection of SARS-CoV-2. Gastroenterology 158(6), 1831-1833.

Waller, J. (2013). *Mükronun Keşfi: Hastalıklar Hakkında Düşüncelerimizi Değiştiren Yirmi Yıl*. TÜBİTAK, Ankara.

Wang, X.-W., Li, J.-S., Jin, M., Zhen, B., Kong, Q.-X., Song, N., Xiao, W.-J., Yin, J., Wei, W., Wang, G.-J., Si, B.-y., Guo, B.-Z., Liu, C., Ou, G.-R., Wang, M.-N., Fang, T.-Y., Chao, F.-H. and Li, J.-W. (2005). Study on the resistance of severe acute respiratory syndrome-associated coronavirus. *Journal of Virological Methods 126*(1), 171-177.

Wang, W., Xu, Y., Gao, R., Lu, R., Han, K., Wu, G. and Tan, W. (2020). Detection of SARS-CoV-2 in Different Types of Clinical Specimens. *JAMA 323*(18), 1843-1844.

WHO (2003). The Right to Water. Retrieved from: https://www2.ohchr.org/english/issues/water/docs /Right_to_Water.pdf (16.05.2020)

WHO (2017). *UN-Water Global Analysis and Assessment of Sanitation and Drinking-water (GLAAS) 2017 Report: Financing Universal Water*, Sanitation and Hygiene under the Sustainable Development Goals. Geneva. Retrieved from: http://www.who.int/water_sanitation_health/publications/glaas-report-2017/en (20.05.2020)

WHO (2020*). Water, sanitation, hygiene, and waste management for the COVID-19 virus: Interim Guidance*. Word Health Organization.

Wölfel, R., Corman, V.M., Guggemos, W., Seilmaier, M., Zange, S., Müller, M.A., Niemeyer, D., Jones, T.C., Vollmar, P., Rothe, C., Hoelscher, M., Bleicker, T., Brünink, S., Schneider, J., Ehmann, R., Zwirglmaier, K., Drosten, C., Wendtner, C. (2020). Virological assessment of hospitalized patients with COVID-2019. *Nature* 1–10. DOI:.10.1038/s41586-020-2196-x

Wu, Y., Guo, C., Tang, L., Hong, Z., Zhou, J., Dong, X., Yin, H., Xiao, Q., Tang, Y., Qu, X., Kuang, L., Fang, X., Mishra, N., Lu, J., Shan, H., Jiang, G. and Huang, X. (2020). Prolonged presence of SARS-CoV-2 viral RNA in faecal samples. *The Lancet Gastroenterology & Hepatology 5*(5), 434-435.

WWF, (2018). Living Planet Report, der. Grooten, M. ve Almond,R.E.A. WWF, Gland. Retrieved from: https://www.wwf.org.uk/sites/default/files/2018-10/LPR2018_Full%20Report.pdf (20.05.2020)

Zhang Y, Chen C, Zhu S, Shu C, Wang D, Song J. (2020a). Isolation of 2019-nCoV from a Stool Specimen of a Laboratory-Confirmed Case of the Coronavirus Disease 2019 (COVID-19). *China CDC Weekly 2*(8):123-4.

Zhang, N., Gong, Y., Meng, F., Bi, Y., Yang, P., Wang, F., (2020b). Virus shedding patterns in nasopharyngeal and fecal specimens of COVID-19 patients. *Infectious Diseases (except HIV/AIDS)*.

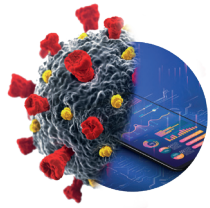
Web Sources

IWA. (2020). COVID-19: A Water Professional's Perspective. Retrieved from: https://iwa-network.org/learn/COVID-19-a-water-professionals-perspective/ (20.05.2020)

IWA. (2020). COVID-19: A Utility Leaders' Response. https://iwa-network.org/learn/a-utility-leaders-response-to-COVID-19/ (20.05.2020)

IWA. (2020). COVID-19: The Regulators' Response. Retrieved from: https://iwa-network.org/learn/COVID-19-a-regulators-response/ (20.05.2020)

WHO. (2020). Global Health Observatory (GHO). Number of deaths due to cholera Retrieved from: https://www.who.int/gho/epidemic_diseases/cholera/situation_trends_deaths/en/ (20.05.2020)



Developments in Information Technologies and Artificial Intelligence in the Post-pandemic Period

Erdal Arıkan

Prof. Erdal Arıkan

Prof. Erdal Arıkan received the BS degree in Electrical Engineering in 1981 from the California Institute of Technology, MS and PhD degrees in Electrical Engineering and Computer Science in 1982 and 1986 from the Massachusetts Institute of Technology. During 1986-87, he worked for 1.5 years at the University of Illinois Urbana-Champaign as an Assistant Professor. He joined the İhsan Doğramacı Bilkent University in 1987, where he works as a Professor in the Electrical-Electronics Engineering Department at present. His area of expertise is information theory and communications engineering. His main research topic in the last years is polar coding which is an error correction coding method. For his work on polar coding, he has won a number of awards including 2010 Sedat Simavi Scienc Award, 2010 IEEE Information Theory Society Paper Award, 2011 Kadir Has Foundation Science Award, 2013 IEEE W.R.G. Baker Award, 2017 IEEE Turkey Section Lifelong Achievement Award, 2018 IEEE Hamming Medal, 2018 Huawei Medal, 2019 IEEE Shannon Lecturer Award.

Developments in Information Technologies and Artificial Intelligence in the Post-pandemic Period[1]

Erdal Arıkan
İhsan Doğramacı Bilkent University
arikan@ee.bilkent.edu.tr

Abstract
The goal of this article is to discuss the COVID-19 pandemic and its impact from a perspective of information technologies. The article first discusses and gives examples relating to the use of information technologies in the fight against the COVID-19 pandemic. Second, the article discusses the role of information technologies in defining the social and economic new normal that is expected to emerge in the post COVID-19 period. The article proposes that information and communication technologies have been transforming every aspect of social and economic life, independent of the COVID-19 pandemic; and that COVID-19 only accelerated this transformation.

Keywords
COVID-19, informatics, artificial intelligence

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The COVID-19 epidemic that started in China in the last months of 2019 turned into a pandemic in a few months and took the whole world under its effect. An important factor in the rapid transformation of the epidemic to a pandemic is the increased airline traffic as a result of globalization. Since giving up globalization is not a realistic option, the humanity must now be prepared against such types of pandemic risks. One frequently expressed opinion during these days of the pandemic is that some things will not be the same after the pandemic; new normals will occur in many areas. These new normals will protect the welfare of individuals on one side, and the welfare of the societies on the other. The purpose of this article is to examine the role of information and artificial intelligence technologies in the construction of this new normal. Before passing to the main topic of the article, it is useful to draw the main frame of the topic in more details.

The COVID-19 pandemic caused more than 5.5 million people to get ill and more than 350.000 people to die by the end of May 2020. The quarantine measures were applied in order to slow down the speed of the pandemic and curfews were implemented. Shopping centres were closed, schools started distance education, institutions and enterprises left their normal working order and directed their employees to work from home. The economies of the Countries got heavily damaged, and unemployment rates have reached the highest levels since 1929 economic crisis.

The wheels of the economy must turn despite the pandemic; prevalent unemployment and closed workplaces are not sustainable cases. After recovered from the first wave of the pandemic with quarantine measures, the public administrators are looking for ways to reinvigorate the economic life. Each country is spending effort to bring life back to normal within the framework of a calendar determined according to the distance taken in

curbing the pandemic. However, there is a risk that the pandemic may come back more violently with a second wave. It is obvious that there is a need for some behavioural changes in order to prevent the reignition of the pandemic.

The common belief is that a new normal will prevail in the world after COVID-19. This new normal has many aspects. One aspect is related to individual behaviours. It is very likely that some individuals will continue their meticulousness on social distance and hygiene they gained during COVID-19 for a longer period of time. Probably they will not travel unless they have to, they will stay away from crowded places; they will prefer to do their shopping and meetings online rather than face-to-face.

Another aspect of the new normal is related to the public health. In this regard, the new normal will probably come out of the practices of Asian countries, such as China, Korea, Singapore that achieved to control COVID-19 pandemic in a short time. The public authorities will take a series of measures for early detection and follow-up of pandemics; an important part of these measures will include the close monitoring of the health status of citizens, isolating the individuals with a risk of disease, and preventing them from travelling, etc.

Another aspect of the new normal will be related to the economic life. During the COVID-19 pandemic, each country's economy has been heavily damaged. Unemployment reached unprecedented levels, companies closed and forced into bankruptcy, and international trade and supply chain interruptions occurred. Internet technologies became a life-buoy that prevented the wheels from completely stopping during this economic overturn. Education in schools could been made remotely, and in many companies, business could continue to be done remotely and efficiently by means of internet. After COVID-19, undoubtedly the most important changes will occur in business and economy. This article is particularly related to the role of informatics and artificial intelligence technologies in the construction of the new normal in the economic area.

In the article, initially some information gathered about COVID-19 pandemic and its effects will be provided. Some examples are given about how information technologies are used particularly in struggling with the pandemic. Then, the social and economic new normal expected to come after the COVID-19 pandemic is discussed from the perspective of information technologies.

Pandemic

COVID-19 pandemic is the world's greatest pandemic since 1918 Spanish Flu Pandemic. However, the world is late in taking the measures against this pandemic, perhaps did not take the pandemic seriously at the beginning. How can it be explained that organizations, such as World Health Organization (WHO), responsible for public health have not timely addressed the danger associated with this pandemic?

They probably thought that the COVID-19 pandemic would be limited to China, as in the SARS epidemic that also emerged in China in 2002-2003. (In that epidemic, the number of cases was recorded as 8.096 and the number of deaths as 770) One factor that have not been taken into account could be that China's airline connectivity with the world has increased exponentially since the SARS epidemic. It is very likely that they were unable to gather the data on the spread rate of COVID-19 timely. It is certain that the world does not have a reliable package and policies to prevent such epidemics before they turn into a pandemic. Regardless from the political system and the economic development level, many countries from USA to Iran, from Italy to Brazil exposed to the destructive effects of this diseases. Some Asian countries constitute an exception. The countries such as China, Japan, Korea, Taiwan, Hong Kong, Singapore, etc. that have epidemic experience in the near past and high skill of using scientific methods made it to the top in stopping COVID-19 pandemic compared to the remaining part of the world. The number of cases in Canada (according to the official figures), which has a population of one-thirty seventh of China and has an income per capita that is 2.5 times of China, exceeded China (Şeker et al., 2020). A question that naturally reveals is that which methods have been used by China and above-mentioned Asian countries to stop the pandemic and what has been done incompletely in the remaining part of the world. One aspect of this question that's particularly of our concern is related to the information technologies. How did they benefit from the information technologies to control and extinguish COVID-19 pandemic, what are the best struggling examples? The main question looking for an answer in this section is this.

The strictest measures to stop the exponential increase of the pandemic have been applied in China. A very strict collective quarantine has been applied and people locked themselves in their houses for a period of 2 months in the main base of the epidemic - Wuhan city of 11 million population. Throughout China, the daily number of new cases have been dropped to almost zero as a result of the similar practices applied in everywhere with disease. As these quarantine measures applied in China became successful, the whole world started to apply, too (though not with the same strictness). Currently almost all of the countries met and recognized such collective quarantines. One of the aspects that should be noted first for the new normal is maybe this. The societies seem to be convinced on locking themselves in their houses by making self-sacrifice from their freedom to struggle with the pandemic. It seems that in the next pandemic, there will be collective quarantine practice in the new normal pandemic seen locations during the first phases of the pandemic where there is no sufficient data particularly on the dimensions and spreading speed of the pandemic and the hospitals have no sufficient preparation and equipment against the pandemic. When the damage caused by COVID-19 is taken into consideration, it is understood that collective quarantine is a very small pay to stand at the expense of preventing the pandemic.

Home confinement has been loosen and people have been allowed to return their jobs progressively after the speed of the pandemic in China slowed down. Referred as reopening the economy, this phase carries the risk of a second wave in the pandemic and is full of challenges in each aspect. The phase that will provide the most advantages by means of using the information technologies is this phase. By basing on the data in this phase, the individuals must be distinguished from each other according to the risk and the free circulation of the ones who are not required to stay home must be allowed.

Concerning the reopening of the economy and allowing the people to work after COVID-19 pandemic is taken under control, different suggestions came from American Enterprise Institute, the Center for American Progress and Harvard University on the protocols to be followed up (Lichfield, 2020). The suggested protocols contain common points and basically consisted of two steps as quarantine process and return-to-work process. During the quarantine process, it is aimed to keep the majority of the population at home as much as possible and slow down the pandemic ("flatten the curve"). At the same time, the quarantine process is the process to gain time in order to improve the test capacity and enable the hospitals equipped as required. However, the objective is to end the quarantine process as soon as possible in a controlled manner, because this process is not sustainable in terms of economy. Can be passed to return-to-job process from quarantine when the test becomes accessible by everyone and the transmission process of the diseases becomes traceable, In order to be successful in the return-to-job process, the principle condition is the ability of reaching testing capacity on a mass scale. So robust data are obtained on who is infected (even does not show any symptom), who developed immunity by being exposed to the virus and who is clean. "Immunity certificate" is granted to the ones understood as developed immunity and they can return to their jobs. The ones whose test results are negative can return their job, too, however they are obliged to have tests in regular intervals. The ones with positive test results and the persons detected as in close contact with them are taken under supervision.

In the second phase of the above protocol, the inevitable role of the informatics and data analytic is obvious. In order to be successful in returning to the job, a mechanism of data gathering, evaluation and decision-making per the case must have been established. The projections related to the progress of the disease can be performed by using the gathered data in epidemiological models; and if deemed necessary, the quarantine practices can be applied again regionally. If returned to the job without basing on data, then there is a risk of waxier return of the pandemic. A robust informatics and communication infrastructure is required in order to establish such data centred epidemic control system.

The mobile telephone system is sufficient as the communication infrastructure required to control the epidemic. For example, South Korea used the location data of the mobile phones to ensure that the persons under quarantine did

not leave the quarantine zone. The applications that use the Bluetooth close distance communication system of the mobile phones have been developed for the purpose of contact tracing. So, for example, it is possible to reach to the other in case one of the two in the elevator becomes ill. A mobile application similar to the one in South Korea started to be used in Turkey recently under the name HES. By means of HES, the health status of the persons can be followed and the persons willing to travel can get travel permit by using this application.A rightful doubt concerning the systems performing location and contact tracing via mobile phone is the loss of privacy of people.It is technically possible to ensure that the owner of the gathered information remain anonymous. The problem here is not technical, it is legitimate. India made the usage of such mobile application obligatory (O'Neill, 2020). It is possible to control the pandemic by the use of the sufficient majority of the community following the granting of the adequate assurance by the public authorities.In addition to mobile phones, there are many pandemic-related data gathering methods.Through the observation of the collective transportation systems, urban centres, streets byusing thermal cameras, it is possible to detect the identities, fever and health statuses of the persons. It is another method to look at the usage statistics of some keywords in the search engines and social networks for the early detection of the regions with a spread risk of pandemic. In some cases, the artificial intelligence can be used to proactively determine the persons under risk. For example, a health insurance company in Israel ranked its 2.4 million subscribers according to COVID-19 risk by using artificial intelligence techniques, and called its 40.000 subscribers for urgent testing (Heaven, 2020).

The above examples show that the informatics and communication technologies offer very effective methods for struggling with COVID-19 and the possible future pandemics. Without any doubt, the public health authorities will get more prepared for struggling with the pandemic with their COVID-19 experience. By taking the support of the public, the methods basing on data will come to the fore in struggling with the pandemic. It is hoped that with the opportunities offered by the informatics and communication technologies, the future pandemics will be avoided before they damage as much as COVID-19.

New Normal

It is in question that a shock like COVID-19 can deeply effect the social life. COVID-19 pandemic showed that the Asian countries, such as S. Korea, Japan, Hong Kong, Singapore, Taiwan and China that are experienced and prepared against pandemics managed to control this pandemic relatively with a less damage, to keep the economic destruction in the minimum, and achieved both psychological and economical superiority on the remaining part of the world. By moving from these achievements of the Asian countries, it has been expressed that the following normal will be the normal of the Asia (Tonby & Woetzel, 2020). What is more possible is that each country will develop measures specific to them concerning the preparation for pandemic. The

individuals will continue to live with the reoccurrence of the pandemic and will act cautiously on travelling, eating outside, and being in crowded places. Even in the societies that are sensitive on the privacy of the personal data, it is assumed that the location and health statuses of the citizens will be followed for the purpose of monitoring the pandemics. In this section, the subjects related to the effects of the pandemic and the permanent changes to result are addressed.

In the report prepared in cooperation with Faethm company and MIT Technology Review, the effect of COVID-19 on the business and employment has been reviewed (FAETHM, 2020). The business has been ranked in terms of *being remotely done, the requirement of interaction with people and inclination to automation*. Since some professions (cashier, caregiver, waiter, etc.) require face-to-face contact with the people, and some other (factory worker, cleaner, etc.) workers need to be in a certain location, they are not suitable for being performed remotely. On the other side, some professions requiring intensive communication with the people (call centre operator, customer and sales representative, etc.) may be performed remotely since they do not require face-to-face contact. Some professions that do not require intensive communication and face-to-face contact (accounting, consultancy, etc.) may be performed remotely in the easiest manner.

The persons who are employed in the professions that cannot be performed remotely and do require close contact with the people are under the risk of infection. The ones who are listed in this category and perform crucial works for struggling with the pandemic, for example; the health personnel, the cashiers working in food stores, were able to continue working by wearing occupational protective equipment. The workers who are working under risky category but not crucial, for example; tourism industry personnel, restaurant personnel and store sales officers, became unemployed due to the closing of their companies. On the other side, the designers, software developers, administrators doing office work carried their works to home and were able to continue working without any serious loss of productivity. And also passed to remote education in the education industry by sending the students to their homes.

According to a study carried out by McKinsey, 57 million professions in USA and 59 million professions in Europe (EU, United Kingdom and Switzerland) are under risk (Lund et al., 2020). In the same study, it is stated that 26 million American citizen applied for unemployment pay as of April 18th, 2020.

The industries that experienced the highest loss of employment are the tourism and travel, retail, non-crucial health and personal care services. Even after the finalization of the pandemic, it is assumed that these industries will not be able to recover for a period of time due to the changing consumer habits.

How to invigorate the tourism and travel industries that are particularly matter to Turkey and how to benefit from the technology for this are the subjects that

should be addressed. Many of the companies sent their personnel to home and cancelled their business trips due to pandemic. However, it is recognized that the works did not hinder in some industries. By means of broadband internet, the companies were able to carry out their meetings via video conference. Virtual offices have been established by means of cloud supported information services. Trade continued to be performed in virtual platforms instead of physical venues. The banking transactions continued to be carried out remotely. The citizens were able to follow up their proceedings via E-government. If there was such a pandemic in the pre-internet era, most of these mentioned items would not be possible even in the most advanced countries of the world. These examples show that communication and information technologies are a strategic infrastructure that supports the economies of modern societies.

Today, a new 5G based internet is being established in many countries of the world. This new internet will form the infrastructure of informatics and artificial intelligence processes that cannot be imagined today. By means of the communication technologies, there will be no need to travel and face-to-face meetings; with three-dimensional teleconference units, all kinds of business meetings will able to be organized efficiently and cost-effectively. The teleconferences that are started to be performed compulsorily by many companies due to COVID-19 will become a part of *new normal*.

In a report prepared by McKinsey, e-commerce and contactless economy are listed among the topics discussed about the normal of the future (Sneader & Singhal, 2020b). Due to COVID-19 pandemic, a significant part of the population also met with virtual shopping for the first time in their lives. It is very likely that this new experience will become a permanent habit. Even there was no COVID-19, there was a trend where virtual stores were replacing the physical stores, but COVID-19 will accelerate this trend. Retail trade shifts from chic Shopping Malls to where high rents are paid, from the warehouses established outside the city to virtual commerce for doing business. This rapid transformation occurring in retailing is an example of the constructive, organizer, efficiency improver power of the communication and information technologies on one hand, and on the other hand, its destructive, disruptive and transforming power. The businesses and enterprises that cannot keep up with the new technologies are obliged to extinct.

During the COVID-19 pandemic, the ordinary health services fail at the health institutions. On one hand, the patients were afraid to go to the hospital, on the other hand, the hospitals could not accept patients. This has increased the demand for telemedicine services. For example, Teladoc, the largest telemedicine company of the USA, reported a 50% increase in its services with the start of the pandemic and included thousands of new physicians in its service network; in Sweden, there has been an increase of 200% in the member registrations of KRY International company (Sneader & Singhal, 2020a). The efficiency increases that telemedicine application will bring are obvious. Telemedicine field is a candidate to become one of the rising industries of the new normal after COVID-19.

In an article published by the World Economic Forum, the attention is taken to ten technology trends related to the COVID-19 pandemic (Xiao & Fan, 2020):

- Online shopping and delivery with robots
- Digital cash and contactless payment instruments replace cash
- Teleworking
- Distance learning
- Telehealth
- Online entertainment, games, virtual tours
- Supply chain 4.0
- Three-dimensional printing (3D printing)
- Robotic and unmanned aerial vehicles (drones)
- 5G informatics and communication technologies

Some of the above topics have been previously addressed in this section. It is only useful to mention the supply chain 4.0, 3D printing and 5G separately. In the rest of this section, these issues will be addressed by benefiting from (Xiao & Fan, 2020).

What is meant by supply chain 4.0 is the reconstruction of the supply chain with technologies such as big data, cloud-based computing, Internet of Things (IoT), block chain, etc. that form the basis of Industry 4.0. COVID-19 pandemic caused breaks in the global supply chain. Some factories were closed due to quarantine practices, transportation was disrupted, restrictions and prohibitions were imposed on the movement of many goods (particularly those that became critical during the pandemic such as food, personal protective equipment, masks).

Countries are willing to re-establish their supply chain in a more transparent, flexible and resource diversified manner. And as a part of this, it is expected from the supply chains to focus more on local resources. It is expected that *just-in-time* and *just-in-case* style supply chains will replace the supply chains that have been optimized with the logic of "*just-in-time*" due to the doubt on the possibility of a break in the supply chain (Sneader&Singhal,2020b). Particularly the tendency of European countries towards Turkey to diversify their supply chains will bring major opportunities along with.

The supply chain of 3D printing comes to the fore in relation with the supply chain issue here. 3D printing is a technology that provides flexibility in production as a measure against breaks in the supply chain or the restrictions imposed on the trade of various materials that become critical during the pandemic such as personal protective equipment. By means of 3D printing, the parts that cannot be supplied can be produced flexibly and quickly by a 3D printing machine; the only thing needed for 3D printing is the digital design files of the material that will be produced and the raw materials such as plastic and metal to be used in the production. Although this kind of production with

3D printing is technologically possible, the occurrence of many commercial or legal obstacles is inevitable. It may not be always possible to urgently access the design files of products that are the subject of 3D printing. The original designs may be protected by patents. For these reasons, the emergency plans for 3D printing that is considered against the breaks in the supply chain should be established before occurrence of the problem.

Including supply chain 4.0, all applications such as online shopping, digital money, contactless economy, teleworking/distance learning, telehealth, etc. require a high-speed and affordable informatics and communication infrastructure. At this point, the critical role of 5G comes to the fore. It is estimated that the contribution of 5G as a catalyst to the world's economy will reach $13.2 trillion annually by 2035 (Arias et al., 2020). A subject required to be mentioned in this context is the recent conspiracy theories about 5G. One of these theories establishes a link between 5G base stations and the spread of corona virus (Temperton, 2020). The ones believing in this conspiracy theory attacked base stations in the United Kingdom and set them on fire. Conspiracy theories that do not base on any evidence are still on the agenda and possibly the establishment of 5G will be delayed in some countries for this reason. It is a subject that by whom and for what these conspiracy theories that has the potential to directly affect the competitiveness and well-being of countries are generated and kept on the agenda should be taken into consideration.

Conclusion and Evaluation

Informatics and communication technologies, particularly the internet and increasing artificial intelligence technologies, as independent of the COVID-19 pandemic, are transforming every area of economic and social life and defining their own new normals. COVID-19 had accelerating effects on this transformation. The new normal will be built on the broadband internet and cloud-supported information infrastructure. The communities that keep up with this technological transformation will continue to improve their welfare, and those who cannot keep up will be challenged to even protect their current economic gains.

The merging of the communication and artificial intelligence initiated a process that brings a series of innovations from sensor networks to smart cities, from remote surgery to Industry 4.0 applications. This process comes across with resistance at levels varying from country to country due to some real or perceptual threats it accommodates. In general, the concern that artificial intelligence and robotic technologies will cause widespread unemployment in almost every country. Indeed, the history of technology and industry is full of countless examples of lost and newly created occupations. This process will continue in the future, too. It is not possible to stand in front of this historical development. The only rational way is to adopt and manage the technological change. The countries left behind in this race will be exposed to the risk of losing their current economic reservoir.

References

Arias, R., Mauro, I., O'Halloran, D., Spelman, M., Deskmukh, M., Galal, H., Kabbara, M., Kaul, R., & Ratan, N. (2020). *The Impact of 5G: Creating New Value across Industries and Society*. World Economic Forum. Retrieved from: https://www.weforum.org/whitepapers/the-impact-of-5g-creating-new-value-across-industries-and-society/ (20.05.2020)

FAETHM. (2020, April 30). *COVID-19 and the workforce: Critical workers, productivity, and the future of AI*. MIT Technology Review. Retrieved from: https://www.technologyreview.com/2020/04/30/1000888/covid-19-and-the-workforce-critical-workers-productivity-and-the-future-of-ai/ (20.05.2020)

Heaven, W. D. (2020). *Israel is using AI to flag high-risk covid-19 patients*. MIT Technology Review. Retrieved from: https://www.technologyreview.com/2020/04/24/1000543/israel-ai-prediction-medical-testing-data-high-risk-covid-19-patients/ (5.05.2020)

Lichfield, G. (2020). *Why simply waiting for herd immunity to covid-19 isn't an option*. MIT Technology Review. Retrieved from: https://www.technologyreview.com/2020/04/14/999515/why-simply-waiting-for-herd-immunity-to-covid-19-isnt-an-option/ (15.05.2020)

Lund, S., Hancock, B., Ellingrud, K., & Manyika, J. (2020). *COVID-19 and jobs: Monitoring the US impact on people and places | McKinsey*. Retrieved from: https://www.mckinsey.com/industries/public-sector/our-insights/covid-19-and-jobs-monitoring-the-us-impact-on-people-and-places (20.05.2020)

O'Neill, P. H. (2020). *India is forcing people to use its covid app, unlike any other democracy*. MIT Technology Review. Retrieved from: https://www.technologyreview.com/2020/05/07/1001360/india-aarogya-setu-covid-app-mandatory/ (15.05.2020)

Sneader, K., & Singhal, S. (2020a). *How business leaders can plan for the next normal | McKinsey*. Retrieved from: https://www.mckinsey.com/featured-insights/leadership/the-future-is-not-what-it-used-to-be-thoughts-on-the-shape-of-the-next-normal (20.05.2020)

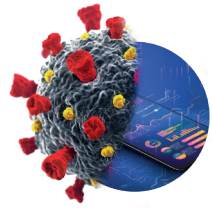
Sneader, K., & Singhal, S. (2020b). *From thinking about the next normal to making it work: What to stop, start, and accelerate | McKinsey*. Retrieved from: https://www.mckinsey.com/featured-insights/leadership/from-thinking-about-the-next-normal-to-making-it-work-what-to-stop-start-and-accelerate (20.05.2020)

Şeker, M., Özer, A., Tosun, Z., Korkut, C. & Doğrul, M. (2020). COVID-19 Küresel Salgın Değerlendirme Raporu. Türkiye Bilimler Akademisi Yayınları, TÜBA Raporları No: 34. Retrieved from: http://www.tuba.gov.tr/files/images/2020/kovidraporu/T%C3%9CBA%20Covid-19%20Raporu%206.%20G%C3%BCncelleme.pdf (15.06.2020)

Temperton, J. (2020). The 5G coronavirus conspiracy theory just took a really dark turn. *Wired UK*. Retrieved from: https://www.wired.co.uk/article/5g-coronavirus-conspiracy-theory-attacks (20.05.2020)

Tonby, O., & Woetzel, J. (2020). *Could the 'future of the world' emerge from Asia? | McKinsey*. Retrieved from: https://www.mckinsey.com/featured-insights/asia-pacific/could-the-next-normal-emerge-from-asia (15.05.2020)

Xiao, Y., & Fan, Z. (2020). *10 tech trends getting us through the COVID-19 pandemic*. World Economic Forum. Retrieved from: https://www.weforum.org/agenda/2020/04/10-technology-trends-coronavirus-covid19-pandemic-robotics-telehealth/ (20.05.2020)



Food Safety and Food Resources in the Post-COVID-19 World

Kazım Şahin

Ali Adnan Hayaloğlu

Prof. Kazım Şahin

Prof. Kazım Şahin graduated from Ankara University Veterinary Faculty in 1990. Kazim Sahin is a Professor of the Nutrition at Fırat University, School of Veterinary Medicine at Department of Animal Nutrition. He is a Principal Member of the Turkish Academy of Sciences. He is also Chair of TÜBA Food, Nutrition and Health Working Group. He is also Diplomate of European College of Poultry Veterinary Science. "Scientific Award" was given by The Scientific and Technological Research Council of Turkey (TÜBİTAK) in 2019 in the field of health for its internationally superior studies on the determination of target-based molecular nutrition strategies in the prevention and treatment of chronic diseases. He has patents from the American Patent Institute.

Prof. Ali Adnan Hayaloğlu

Prof. Ali Adnan Hayaloğlu was graduated from Department of Food Engineering, at Inonu University, in 1995. He completed MSc and PhD degrees at the University of Cukurova, in 1999 and 2003. Dr. Hayaloğlu worked a part of his PhD studies in Ireland, University College as visiting student. He has mainly experience on traditional cheeses of Turkey, its manufacturing technology, chemistry, biochemistry, and volatiles developed during ripening. Recently, he has worked on profiles of cheese and non-dairy peptides, its angiotensin-converting enzyme (ACE)-inhibition activity, antioxidant and antimicrobial activities. Dr. Hayaloğlu is an active member of Turkish Science of Academy (TÜBA) and American Dairy Science Association (ADSA).

Food Safety and Food Resources in the Post-COVID-19 World[1]

Kazım Şahin
Fırat University
nsahinkm@yahoo.com

Ali Adnan Hayaloğlu
İnönü University
adnan.hayaloglu@inonu.edu.tr

Abstract
SARS-CoV-2, which was seen for the first time in Wuhan China in December 2019, is the cause of coronavirus disease (COVID-19). It led to pandemic and resulted in the death of important numbers of people wordwide. Despite the large scale of the pandemic, there has been no report or data of transmission of COVID-19 via consumption of food to date. But food could also lead to indirect contamination through if infected person touch it. This is why everybody should follow the recommendations of public health authorities on the washing of hands. In this study, the potential interaction of SARS-CoV-2 with food products and potential risks, the effects in food system, the practices that the food handlers can follow to prevent the contamination and the spread of the virus, what is the importance of good hygiene practices in food safety in this pandemic, the role of consumers in this process are discussed and it has underlined that the importance of safety and good hygiene practices in pandemi.

Keywords
SARS-CoV-2, COVID-19, good hygiene practices, food safety, pandemic

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

SARS CoV-2 virus known as COVID-19 (Corona Virus Disease 2019) that initially emerged in Wuhan province of China in December 2019 became a diseases with which the entire world is struggling. Due to a series of effects, such as health, economic, sociological, psychological, education, etc., of the epidemic referred to as pandemic by the World Health Organization, it is evaluated that its impact factor is higher compared to the other epidemic and virus origin diseases. It is claimed that the virus, which spreads rapidly through respiration, contact and personal immunity, has expressed some differences from the previously defined pandemic viruses.

Coronaviruses (CoVs) are RNA viruses that infect both humans and animals. This infection caused by the viruses affects the respiratory, gastrointestinal and central nervous systems. Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV) and Middle East Respiratory Syndrome Coronavirus (MERS-CoV) are contagious and lethal, and they have caused the death of thousands of people in the past two decades. The last epidemic was first discovered in Wuhan, China (Zhang et al., 2020).

COVID-19 Pandemic

After it was seen in Wuhan in December 2019, it rapidly spread to every place of China (Wang et al., 2020). The pathogen micro-organism that is detected following the isolation and identification processes related to the virus, the new 2019 coronavirus has been named as (2019-nCoV). However, then, an official declaration was made by the World Health Organization (WHO), and it was named as Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2). After the serious spread exhibition of SARS-CoV-2 in progress of time, COVID-19 was announced as a pandemic by the World Health Organization on the 11th of March, 2020 (WHO, 2020a).

Although not yet certain, it is considered that the first transmission point of COVID-19 infection, which is expressed as a rapidly and easily transmittable disease, is the Huanan Seafood Market (Wuhan, China). It has been found out that two thirds of 41 cases with diagnosed diseases had relation with Huanan seafood wholesale market where also livestock are sold (Chen, 2020). Thus, as a result of the researches conducted, it was claimed that some individuals who did not visit Huanan (Wuhan, China) seafood market also infected, and so the human-to-human transmission of the disease has been proven (Shreen et al., 2020). Zhou et al., (2020), by benefiting from the array technology, identified that SARS-CoV-2 virus and the bat coronavirus has a similar gene sequence up to 96.2%. With this study, it is considered that the bat may be the infection origin of SARS-CoV-2 virus.

As of today, more than 5 million COVID-19 cases detected in total in more than 210 countries, and against this, more than 360.000 of these cases resulted with death. These numbers are exponentially increasing (JHU, 2020). Flu-like symptoms of COVID-19 generally appear 5-6 days after the infection, and symptoms including fever, cough, sore throat, shortness of breath, muscle and body aches, diarrhoea, nausea and vomiting, and in some cases, loss of smell or taste are observed. In patients with advanced course, severe acute respiratory tract failure, pneumonia, multiple organ failure and death are seen.

It has been reported that SARS-CoV-2, which is the factor of COVID-19 infection, bind and enter the cells by means of "binding of S protein to the angiotensin converting enzyme 2 (ACE2) receptor on the surface of the cells" (Shang et al., 2020). The reveal of the fact that ACE2 is a receptor for SARS-CoV-2 naturally indicates that the organs and tissues that highly express this receptor will be the target organs for SARS-CoV-2. Although the lung alveolar epithelial cells are the densest, it is known that small intestinal enterocytes express high levels of ACE2. Therefore, in addition to the longs, it is clear that the small intestine will be a potential target for SARS-CoV-2 (Zou et al., 2020). It is accepted that SARS-CoV-2 virus is transmitted from person to person particularly by means of droplet, taking the respiratory droplets containing the virus through the nose, mouth and eyes or by means of contact, contacting the hands infected with the virus to the nose, mouth and eyes. *The transmission of SARS-CoV-2 virus through food consumption has not been reported yet.* In addition to this, it is not yet fully known whether the virus has been detected in other clinical samples and therefore whether samples other than the droplets are the origin of the virus or not. As a matter of fact, the presence of gastrointestinal findings in most of COVID-19 patients and the detection of SARS-CoV-2 virus RNA in the stool of again most of them, even the identification of infectious virus particles there raise the question of whether the virus is transmitted via the faecal-oral path or not.

In a study conducted in children (2 months-15 years old) infected with SARS-CoV-2, the virus RNA has been found positive in rectal swaps of 8 out of 10 children. More importantly, the PCR continued to be positive in the rectal swabs

of 8 patients although the PCR in the throat and nose swabs were negative. These results also suggest that the gastrointestinal system contributes to the spreading of the virus and the transmission by faecal-oral path. However, since virus isolation has not been performed in this study, it has not been stated whether the infective virus was found or not despite the presence of nucleic acids of the virus (Xu et al. 2020).

In a study carried out in China, the presence of SARS-CoV-2 has been investigated at different times in the nasal swab, blood, sputum, stool and urine samples of COVID-19 patients, and RNA of the virus has been detected in 44 of 153 (29%) samples, but virus RNA could not been detected in 72 urine samples. One of the attractive, perhaps the most important finding of this study is that the infective virus has been isolated in the stool samples of 2 patients. This result unfortunately suggests that the faecal-oral path may play a role in the transmission of SARS-CoV-2 virus (Wang et al., 2020a). It is not known whether the identification of virus in the stool is related to the severity or symptoms of the disease. As to be less than the respiratory system findings, the gastrointestinal findings such as abdominal pain, digestive system bleeding, nausea, vomiting and diarrhoea are reported in 2-35% of COVID-19 patients. In some studies, it has been reported that before respiratory findings and high fever, gastrointestinal findings are detected in up to 10% of the patients (Wang et al., 2020b).

In a study carried out on nose, throat and stool samples, SARS-CoV-2 RNA has been found positive in 44 of 74 stool samples. During the long-term follow-up, while the nasopharyngeal swabs remained positive averagely 15 days after the initiation of the symptoms, the nasopharyngeal swabs of 41 patients whose stool samples were found positive remained positive for an average of 16 days. The stool samples of these patients remained positive for an average of 30 days. By basing on these findings, the researchers reported that once the respiratory system samples have become negative, the virus may continue replication in the gastrointestinal tract of the patients and the virus will be able to continue to disseminate approximately for 30 days after its elimination in the respiratory system (Wu et al., 2020). Since the findings reported above are relatively few patient findings, it is necessary to examine more samples to identify how often and how long the infectious virus can be detected in the stool. When it is considered that even a small amount of virus is sufficient to cause COVID-19 disease, it should be noted that even very few amount of infectious virus in the stool can play role in the dissemination of the disease (Amirian, 2020).

Meeting Food Requirement and Food Safety During COVID-19 Process

Since no treatment or vaccine has yet been developed for COVID-19 disease, the scientific community and authorities are spending serious efforts to obtain information for the management of the pandemic crises in the current period and future, and to better manage the process. During this period, the food

industry and its stakeholders also come to the fore due to the requirements of people for food to survive. Such a serious pandemic that is causing a decrease in the presence of labour by more than 25% can also lead to lack of food worldwide appears as a possibility in front of us. The authorities and research groups must quickly identify the most critical threats to the food system in order to mitigate the effects of the pandemic. In this study, the food sources available during the COVID-19 pandemic crisis period in our country have been evaluated within the scope of food safety, and the risks of food products in terms of being both source of transmission and source of spread have been investigated.

Possible Risks of SARS-CoV-2 in Foods

It is accepted that the main transmission mode of COVID-19 disease is from person to person; and in general, by means of infected droplets during sneezing, coughing or breathing. When a person sneezes, small droplets containing approximately 20.000 viruses are spread through the airway. There must be a repelling force in the air and the person must contact this spreading virus in order for viruses such as SARS-CoV-2 to spread. It is known that some viruses target specific tissues and organs, and that coronavirus targets the lungs (WHO, 2020b). The virus can stay alive for up to maximum 4-5 days on various materials such as paper, plastic, glass aluminium, wood, etc.

Although it is certainly reported that SARS-CoV-2 is transmitted through the respiratory tract, food is questioned by the people by being considered as one of the suspicious sources, as in all infections. SARS-CoV-2, the factor of COVID-19 disease, cannot develop on food compositions and surfaces. While the bacteria can grow on the surface of the food under appropriate conditions, viruses such as SARS-CoV-2 require a living host to reproduce. Although the viruses can survive on various objects and surfaces, it is not known for how long they can survive on a food and how much is required to be taken to the body to get infected (WHO, 2020a).

The European Food Safety Authority (EFSA) and the United States Food and Drug Administration (FDA) closely monitor the situation by carrying out detailed researches on the transmission sources of COVID-19 that affected almost all countries and caused thousands of deaths. The epidemics that have been previously encountered due to viruses such as MERS-coronavirus (MERS-CoV) and SARS-coronavirus (SARS-CoV) have shown that food is not a source of transmission for relevant viruses (FDA, 2020). And in today's pandemic, there is no evidence that SARS-CoV-2 virus is different in this respect. According to the researches carried out by Food Safety agencies in EU member States, it is not possible to encounter the factor of COVID-19 disease in processed foods. In addition, the European Food Safety Authority stated that there is no data or evidence that food is a possible transmission source or route of COVID-19 virus (EFSA, 2020). Along with this, although COVID-19 is a large-scaled pandemic, there is no report of transmission through food consumption to date. As a result, there is no evidence that foods pose a risk to

public health in terms of COVID-19. On the other hand, if an infected person touches food and another healthy person comes into contact with this food, then the food can also be a source of transmission. Theoretically, the food and packages being contaminated by an infected person can be an infection source since they are carriers. In this sense, it has been determined that the way of transmission of the virus to the food is indeed that at the food companies, the personnel who do not have any symptoms of disease, but referred as carriers infect the food (Sağdıç et al., 2020). Therefore, in order to eliminate the possibility of a possible infection to occur on food, as well as in order to protect the personnel besides the food, the National Food Safety regulations and the rules regarding COVID-19 must be followed. The food companies and operators should strengthen their good hygiene practices and standard operating procedures. In this sense, the awareness of all personnel working in the production and sales chain should be raised on the subject and wearing mask and gloves should be made compulsory by the relevant management units even if there are no symptoms.

The Role of Food Businesses and Consumers at the Point of Protection from SARS-CoV-2 Virus

The researches showing that SARS-CoV-2 and other coronaviruses remain alive in the digestive system and are excreted with stool suggest that these viruses can be found for a very long time in the environments where we live and it is vital that food manufacturers and consumers pay attention to the general hygiene rules for protection.

Under the experimental conditions, it has been determined that the virus can survive on various surfaces such as plastic or cardboard, etc. used in packaging. This suggests that food packaging materials can also be a source of contamination for individuals. Therefore, some points should be taken into consideration by consumers during and after the shopping.

Points to Consider During Market Shopping

- *A minimum distance of 1.5 m must be left between the shoppers to prevent contamination.*
- *Hand shaking, hugging or other physical contacts should be avoided.*
- *If available, it is important to clean the frequently touched surfaces, such as the shopping trolleys or the handles of the basket, with a disinfectant or wipes containing disinfectant.*
- *In order to avoid a possible contamination with any pathogen present on the hands, should not be touched to other products than the product to be bought.*
- *Touching the face should be avoided.*
- *While wearing a mask at the market reduces the risk of being infected, at the same time, it can play a reminding role for the other people to respect social distance. At the same time, wearing a mask also helps prevent symptomatic people from infecting others.*

- *Particularly the vegetables and fruits should be packaged by the personnel of the market after the necessary measures are taken to prevent contact by many people.*
- *Hand disinfectant should be used, if any, before leaving the market or when waiting in the payment area.*
- *The people with symptoms such as fever or cough should avoid shopping in public places.*
- *Washing hands frequently and keeping the distance with the people is the best way to prevent disease.*

Points to Consider After Market Shopping

The recent studies conducted have shown that SARS-CoV-2 virus protects its infectious character for up to 72 hours on surfaces or objects. However, most of the viruses on the surface of commonly used materials become ineffective after the first 24 hours and lose their infectious character. A limited number of findings have been identified concerning the dissemination of disease by the virus containing particles in these products.

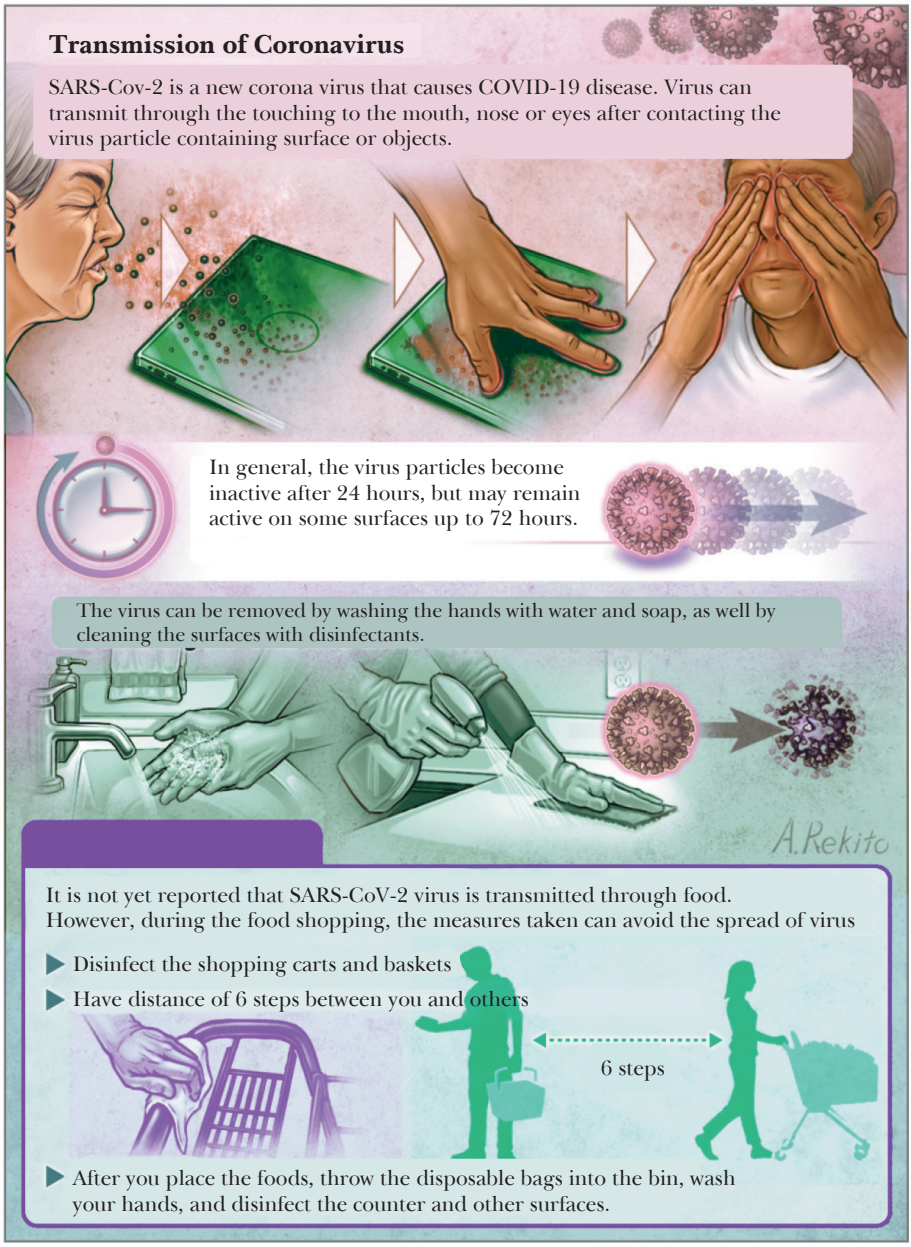
- *Hands must always be washed after removing the food from the packaging.*
- *In addition to this measure, wiping and disinfecting the surfaces are among the things that should be done.*
- *Touching the eyes, nose or mouth when using food and food packages should be avoided, and reusable shopping bags should be washed regularly.*
- *If the food will be consumed shortly after it is unpacked, it is necessary to pay attention to hand hygiene before eating.*
- *Personal items such as plates, spoons, forks and glasses should not be shared with other people.*
- *The fruits and vegetables should be rinsed well with water before consumption (Desai and Aronoff, 2020).*

When all these practices are taken into consideration, the best way to avoid COVID-19 in safe food consumption during this process is good hygiene practices. After shopping, before using the food, during the preparation and before eating, the hands should always be washed with soap and water for at least 20 seconds and dried thoroughly with disposable towels. All equipment and surfaces that are used when preparing the food must be washed and disinfected.

At this point, WHO has identified five key rules for more reliable food:

1. *Keep Clean*
2. *Separate raw and cooked foods*
3. *Cook well*
4. *Keep foods at safe temperatures*
5. *Use reliable water and raw materials (WHO, 2020b)*

Image 1. Transmission of virus and protection



Source: *(Desai & Aronoff, 2020)*

Subjects to Address in Food Production in New Period after COVID-19

When we consider all factors of COVID-19 pandemic, there are four important aspects that should be handled in the new period by the food industry and food supply chain (Figure 1).

First; while the consumers try to protect themselves and their immunity systems by implementing healthier diets, since the demand to these products will increase, it is possible that the bioactive ingredients of the food may become critical and scarcity may occur. Second; the food safety is a subject to which attention should be paid in terms of the prevention of spread of virus among the manufacturer, retailers and consumers. Third; the food reliability concerns resulting due to approximately one billion people not going out of their homes along with the quarantine practice is an important issue again to be addressed. Finally, the sustainability of the food systems during the pandemic period is another subject that should be addressed by the industry.

Providing a healthy and reliable environment to all personnel in the food production and supply chains is a must to prevent the food scarcity. For the purpose of protecting the safety and integrity of the food supply chain and to balance the international trade with the need of support, the entities authorized in food safety must prioritize the services having critical importance during the ongoing COVID-19 pandemic. In order to facilitate this, FAO and WHO have developed guidelines for the persons authorized in food safety, and FAO has provided guidance on the policy that is required to be applied for the food safety and food reliability during the pandemic process. In order to ensure and maintain safe food production, it is very important to strengthen the implementations of the available international standards developed by the Codex Alimentarius Commission and Food Import and Export Supervision and Certification (FAO, 2020).

In addition, FAO supports the measures ensuring the sustainability of the supply chains for enabling the people access to safe and nutritious foods during the pandemic. In this sense, special strategies are suggested, such as expanding the urgent food aid programs by increasing the e-commerce and ensuring urgent aid to the agricultural production of small businesses. Likewise, suggests the logistics bottlenecks having key importance (i.e.; avoiding the inter-city food transportation for the perishable foods, such as fish, vegetable and fruit, etc.) to focus on tax and trade policies in order to mobilize the supply chain and implement the financial measures in case the food prices increase. FAO realizes comprehensive studies with WHO for providing guidance service targeted for everyone in the food chain for the purpose of supporting the studies realized to protect the safety of the food supply during such a crisis (FAO, 2020).

Figure 1. Food Systems during Coronavirus Pandemic (COVID-19) Crisis Period



Food Safety and Nutrition during COVID-19 Pandemic

In order to improve the physical and mental health of the individuals during the COVID-19 pandemic, an action plan has been proposed for the purpose of maintaining optimal nutrition at individual, social, national and global levels by using an adapted version of the ecological model (Naja and Hamadeh 2020; Table 1 and Figure 3). The common denominator that guides most of the nutritional and dietary recommendations at the individual level in order to struggle with COVID-19 is associated with the link between diet and immunity. Because it is known that diet has an important effect on the immune system of the people and sensitivity to the diseases. The measures such as self-isolation and social distance in the control of the disease are very important in limiting the spread of the virus, reducing the risk of the disease and ultimately in the control of the disease. However, these measures have serious effects on both accessing to food access and method of use (Naja and Hamadeh, 2020). Because the continuous stay of the person at home has direct effects on lifestyle such as nutritional habits and physical activity losses. Even if it is short-term, low physical activity can adversely affect the physical and mental health. Continuously staying at home can lead to irregular eating habits that are associated with high calorie intake and an increased risk of obesity. In this sense, the most important responsibilities of the individuals during the

COVID-19 pandemic are to apply diets that are rich in fruits and vegetables by applying a healthy lifestyle, to do exercise during the leisure time, to try to gain healthy and balanced weight, and to get enough sleep. Furthermore, for the individuals, drinking 8-10 glasses of water in a day, reducing the sugar-added fruit juices and carbonated beverages, reducing the consumption of the saturated, trans-fat fast food products and not consuming excessive salt daily are recommended (Naja & Hamadeh 2020; WHO, 2020). In addition to this, it has been reported that vitamin D that strengthens the cellular immunity by suppressing the production of various interleukin-6, interferon gamma and tumour necrosis factor-α secreted by Th1 cells in the immune system (Grant et al., 2020), and lactoferrin, a natural anti-microbial glycoprotein, reduce the symptoms of COVID-19 (Serrano et al., 2020), however, it was stated that these clinical studies must be conducted with more comprehensive patient groups. In the treatment of patients having COVID-19 infection at moderate and severe level, it has been determined that vitamin C, with intravenous administration, is useful at doses ranging from 10-20 g/day (Cheng, 2020). It has been reported that phytochemicals such as curcumin, resveratrol, quercetin, echinacea extract, etc. support the immunity by reducing the inflammatory biomarker levels such as IL-1β, IL-6 and TNF-α and may be protective against coronaviruses (Zahedipour et al., 2020; Marinella, 2020; Huang et al., 2020). However, there is a need for advanced level of scientific studies in order to determine the safe and therapeutic levels of these bioactive products.

Due to the difficulties in transportation, distribution and delivery, problems in accessing food may be experienced during COVID-19 pandemic (Vallianatos et al., 2010). Pandemics, by creating uncertainty and fluctuation in consumer demands, make it difficult to keep food stocks in particular in the economy just in time. The people can stock more food than they need. Stocking can lead to excessive scarcities and rapidly increasing prices in the markets. This may have devastating consequences for the risky groups of the population. The elderly people and people with chronic diseases may be malnourished when their health concerns and limited purchasing power are taken into consideration. For this reason, it is a crucial social responsibility to expand the aid in accessing to food and food availability through a planned and reliable support system by identifying the risk levels at the communal level (Naja & Hamadeh, 2020).

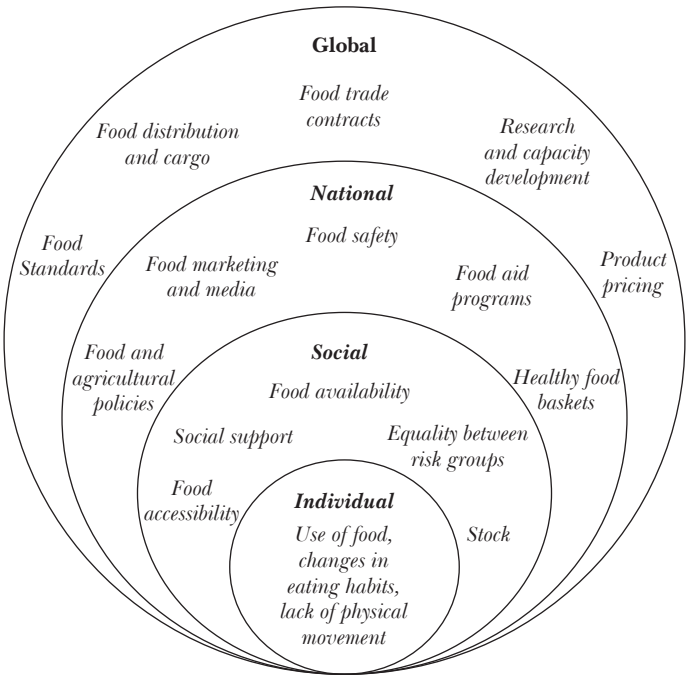
During the pandemics, each country should define, finance and distribute a food basket that supports the health related requirements of the population and includes a diet with the lowest cost against the difficulties resulting from providing adequate food. And this should include the local agricultural products of the country and minimize dependence on importing food. The policies should be established to mobilize the resources to finance the food purchases and provisions, for the tax exemption for essential foods and products, and to support the agriculture and food production industries. When the impact of the COVID-19 pandemic on the supply and demand dynamics of food is taken into consideration, the price increases reach to uncontrollable levels sometimes and become widespread. This is a situation that requires a national

effort in order to closely monitor and control the food prices and markets (Naja & Hamadeh 2020).

The governments should establish and maintain an open and bi-directional communication with the public during the pandemic. The transparency and trust that have critical importance in particular are required to ensure support and compliance (Naja & Hamadeh 2020). In order to inform the public on the sufficient food consumption and purchase, public awareness campaigns, training on nutrition, emergency news bulletins, radio and TV announcements and interviews, as well as special telephone lines for direct communication with the representatives of the government can be designated (Naja & Hamadeh 2020).

The countries that are significantly dependent on imported food in order to meet their food demand may encounter a number of risks, particularly due to the delays in the supply chain resulting from the closed border crossings. For this reason, it is essential to ensure the food supply throughout the world in order to provide a smooth flow of global trade and to prevent food insecurity in the international markets (Naja & Hamadeh 2020).The protectionist strategies that are implemented by each country should be complemented by global cooperation, solidarity and coordination between the countries to ensure that humanity gets out of this pandemic with the least loss possible.

Figure 2. An action plan recommended at individual, social, national and global level to support nutrition and food safety during COVID-19 pandemic



Source: *(Naja & Hamadeh 2020)*

Table 1. Recommendations to reduce the impact of COVID-19 on nutrition and food safety at individual, social, national and global levels

	Nutritional Recommendations During COVID-19 Pandemic
Individual	• Avoid hidden hunger caused by microelements. Because zinc, iron, selenium, iodine, vitamins A, B12 and D deficiencies are associated with many diseases. • Eat a well-balanced diet according to your nutritional requirements and avoid irregular snacks. • Eat foods rich in vitamins A, C, E, B12, zinc and iron, such as citrus, dark green leaf fruits, nuts and dairy products. • Maintain a healthy lifestyle with exercise (home exercise), regular sleep and meditation. • Stay away from smoking, alcohol and drugs. • Avoid disseminating the false information about the relationship between COVID-19 and nutrition and dietary consumption.
Social	• Raise awareness on the devastating consequences of stock and shopping in panic. • Identify and support the population at high risk of malnutrition in the community, particularly the elderly and chronic patients. • Establish a planned and reliable support system to ensure that the essential food products are reachable, accessible and affordable for all members of the community.
National	• Food assurance should be addressed as a public health concern through an integrated approach. • Ensuring the interworking of the Ministry of Health, Ministry of Food, Agriculture and Livestock and relevant scientific institutions according to a single health concept in order to improve the healthy-balanced nutrition opportunities. • Define, finance, and distribute a low-cost diet that meets the health related needs of the population, ensures the use of the local agricultural products of the country and minimizes the dependence on importing food. • Mobilize the required resources in order to finance the food purchases and provisions. • Waive on taxation for essential foods and goods. • Support the agriculture and food production industry. • Inspect and control the markets and food prices closely. • Establish networks between the private sector, international agencies and local communities. • Maintain high transparency levels that have critical importance to ensure trust, support and compliance. • Youth should be encouraged to return to the village again and their contribution to the agricultural production should be supported. • Biodiversity, particularly the endemic plant and animal species, should be protected.
Global	• Ensuring the constant flow of global trade and avoiding trade restrictions, in addition to the food and feed supplies, preventing the deterioration of the agricultural inputs' local conditions that have been already challenged by COVID-19 measures. • Reducing the import taxes and other restrictions on foodstuffs. • Biodiversity, particularly the endemic plant and animal species, should be protected.

Source: *(Naja & Hamadeh 2020)*

Conclusion

Due to the reporting of thousands of cases and deaths every day, the World Health Organization has declared coronavirus disease as a pandemic. A new period and process has emerged with the COVID-19 pandemic. Detailed studies are still carried out for the humanity due to the economy and food systems. With the progression of the pandemic, the scientists and the industry experts will have to struggle with various challenges in many important issues such as ensuring food safety and food reliability. At this point, during COVID-19 pandemic period, measures should be taken against a possible economic crisis through offering acceptable and economically competitive products, and developing functional foods strengthened with bioactive components and antioxidants that are beneficial for health and supporting the immunity system of the consumers. During this process, without any doubt, there is a need to avoid the practices that are performed with the logic of "usual works", and to accelerate the efforts to develop sustainable and modern food systems. Some viruses pass into sleeping mode in passive form and present at older ages, weight loose, nutritional deficiency, or reduced body immunity under stress situations of the person (WHO, 2020b). Therefore, during this process where nutrition has a vital importance, the safe and sustainable food concepts become more important than ever. In this sense, the transmission of the factor that is causing the pandemic to the food supply chain should be prevented. According to the available information, it is considered that the transmission way of the virus to the foodstuff is in the form of transmission to the foodstuff by the infected workers who are working at the food companies, do not exhibit any symptoms of disease, but carry the virus. For this reason, it is important to raise the awareness of all personnel working in both the production and sales chain about the necessity of good hygiene practices and the obligation of using personal protective equipment such as masks and gloves, and most importantly, in comprehending all aspects of the seriousness of the pandemic process.

As a result; COVID-19 disease caused by SARS-CoV-2 virus that affects the whole world is a great risk source for the human health. The most effective way of the transmission of the disease to the healthy people is the breathing of the virus spread in the form of droplets through the cough and sneezing of an infected person. It is thought that it may be another method of spread if the person touches his own face, nose and eyes after touching contaminated surfaces (WHO, 2020a). Since there is no data yet that the disease is transmitted through food or digestion, the experts express that the transmission of the disease through food or packaging is not likely possible. There is still no certain information about whether the factor of the disease responsible for COVID-19 is present in the composition or surface of the food or not, for how long it can survive on food and whether it can infect the people or not. However, according to the current scientific studies, it is clear that, although there is no information that SARS-CoV-2 virus is transmitted through the food and food packaging, the personal hygiene rules must be ensured by considering the possibility that an infected person who carries the factor of the disease may

have contacted the food being consumes. On the other hand, it is becoming an obligation to realize all correct production and hygiene practices required to fully ensure the concept of "safe food" before the consumption of the foodstuff.

References

Amirian, E.S. (2020). Potential fecal transmission of SARS-CoV-2: Current evidence and implications for public health. *Int J Infect Dis*, 95, 363-370.

Chen, J. (2020). Pathogenicity and Transmissibility of 2019-nCoV -A quick overview and comparison with other emerging viruses. *Microbes and Infection*, DOI: 10.1016/ j.micinf.2020.01.004.

Desai, A. N., Aronoff, D. M. (2020). Food Safety and COVID-19. *JAMA*. Patient Page. Retrieved from: https://jamanetwork.com/journals/jama/fullarticle/2764560 (20.05.2020)

EFSA (European Food Safety Authority). (2020). *Coronavirus: no evidence that food is a source or transmission route*. Retrieved from: https://www.efsa.europa.eu/en/news/coronavirus-noevidence-food-source-or-transmission-route (15.05.2020)

FAO (Food and Agriculture Organization of the United Nations). (2020). COVID-19 and Food Safety. Retrieved from: http://www.fao.org/2019-ncov/q-and-a/food-safety/en/ (15.05.2020)

FDA (U.S. Food and Drug Administration). (2020). Food Safety and the Coronavirus Disease 2019 (COVID-19). Retrieved from: https://www.fda.gov/food/food-safety-during-emergencies/food-safety-and-coronavirus-disease-2019-covid-19 (20.05.2020)

Huang YF, Bai C, He F, Xie Y, Zhou H. (2020). Review on the potential action mechanisms of Chinese medicines in treating Coronavirus Disease 2019 (COVID-19). *Pharmacol Res*. 104939.

Grant, W. B., Lahore , H., McDonnell, S. L., Baggerly , C. A., French, C. B., Aliano , J. L., Bhattoa , H. P. (2020). Evidence that vitamin D supplementation could reduce risk of influenza and COVID 19 infections and deaths. *Nutrients, 12*(4), 988. DOI: 10.3390/nu12040988.

Johns Hopkins University and Medicine. (2020) https://coronavirus.jhu.edu/map.html (17.05.2020)

Marinella MA. (2020). Indomethacin and resveratrol as potential treatment adjuncts for SARS-CoV-2/COVID-19. *Int J Clin Pract*. e13535. DOI: 10.1111/ijcp.13535

Naja F.Hamadeh, R. (2020). Nutrition Amid the COVID-19 Pandemic: A multi-level framework for action. *Eur J Clin Nutr*. 1-5. DOU: 10.1038/s41430-020-0634-3.

Sağdıç, O., Kayacan, S., Dertli, E., Arıcı, M. (2020). Gıda güvenliği açısından COVID-19 etmeni SARS-CoV-2'nin değerlendirilmesi ve korunma yöntemleri. *Avrupa Bilim ve Teknoloji Dergisi*, (18), 927-933.

Serrano , G., Kochergina , I., Albors , A., Diaz, E., Oroval , M., Hueso , G., & Serrano , J. M. (2020). Liposomal lactoferrin as potential preventative and cure for COVID-19. *International Journal of Research in Health Sciences,* 8, 8-15.

Shang, J., Ye, G., Shi, K., Wan, Y., Luo, C., Aihara, H., Geng, Q., Auerbach, A., Li, F. (2020) Structural basis of receptor recognition by SARS-CoV-2. *Nature*, 581, 221–224

Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., Siddique, R. (2020). COVID-19 infection: origin, transmission, and characteristics of human coronaviruses. *Journal of Advanced Research,24*, 91-98.

Wang, W., Xu, Y., Gao, R., Lu, R., Han, K., Wu, G., Tan, W. (2020a). Detection of SARS-CoV-2 in different types of clinical specimens. *JAMA, 323*(18), 1843–1844.

Wang, D., Hu, B., Hu, C., Zhu, F., Liu, X., Zhang, J., Zhao, Y. (2020b). Clinical characteristics of 138 hospitalized patients with 2019 novel coronavirus–infected pneumonia in Wuhan, China. *JAMA*, *323*(11), 1061-1069.

WHO (World Health Organization). (2020a). *Coronavirus disease 2019 (COVID-19) Situation Report –51*. Retrieved from: https://www.who.int/docs/default (17.05.2020).

WHO (World Health Organization). (2020b). *Five Keys to Safer Food Manual. Report–51*. Retrieved from: https://www.who.int/foodsafety/publications/consumer/manual_keys.pdf (20.05.2020).

Wu, Y., Guo, C., Tang, L., Hong,Z., Zhou, J., Dong, X., Yin, H., Xiao, Q., Tang, Y., Qu, X., Kuang, L., Fang X., Mishra, N., Lu, J., Shan,H., Jiang, G., Huang., X. (2020). Prolonged presence of SARS-CoV-2 viral RNA in faecal samples. *Lancet Gastroenterol Hepatol*, 5(5), 434-435.

Xu, Y., Li X., Zhu, B., Liang, H, Fang, C., Gong, Y., Guo, Q., Sun, X.,Zhao, D., Shen, J., Zhang, H., Liu, H., Xia, H., Tang, J., Zhang, K., Gong, S. (2020) Characteristics of pediatric SARS-CoV-2 infection and potential evidence for persistent fecal viral shedding. Case Reports. *Nat Med. 26*(4), 502-505.

Vallianatos M, Azuma AM, Gilliland S, Gottlieb R. 2010. Peer reviewed: food access, availability, and affordability in 3 Los Angeles communities, project CAFE, 2004–2006. Prev Chronic Dis, 7:1–9.

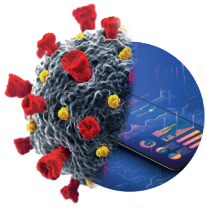
Zahedipour F, Hosseini SA, Sathyapalan T, Majeed M, Jamialahmadi T, Al-Rasadi K, Banach M, Sahebkar A. (2020). Potential effects of curcumin in the treatment of COVID-19 infection. Phytother Res. DOI: 10.1002/ptr.6738

Zhang, R., Wang, X., Ni, L., Di, X., Ma, B., Niu, S., Reiter, R. J. (2020). COVID-19: Melatonin as a potential adjuvant treatment. *Life Sciences*, 117583.

Zheng, Y. Y., Ma, Y. T., Zhang, J. Y., Xie, X. (2020). COVID-19 and the cardiovascular system. *Nature Reviews Cardiology*, *17*(5), 259-260.

Zhou, P., Yang, X. L., Wang, X. G., Hu, B., Zhang, L., Zhang, W., Chen, H. D. (2020). A pneumonia outbreak associated with a new coronavirus of probable bat origin. *nature*, *579*(7798), 270-273.

Zou, X., Chen, K., Zou, J., Han, P., Hao, J. Z. H. (2020). The single-cell RNA-seq data analysis on the receptor ACE2 expression reveals the potential risk of different human organs vulnerable to Wuhan 2019-nCoV infection. *Front Med. 14*(2), 185-192.



National and International Agricultural Policy in the Post-pandemic Period

Fahri Yavuz

Prof. Fahri Yavuz

Prof. Fahri Yavuz completed Bs degree at Atatürk University. He took MSc and PhD degrees in Economics and Agricultural Economics fields from Ohio State University in 1994. Dr. Yavuz, who started to work as an assistant professor at Atatürk University in the same year, became an associate professor in 1996 and a full professor in 2003. He was visiting professor in the USA with a Fulbright scholarship in 2001-2002 and with a YÖK scholarship in 2011. He leaded EU, UNDP and JICA supported international projects and TÜBİTAK supported national projects besides Development Agency, Private Sector and BAP supported regional projects. Having more than 100 books, textbooks, project reports, printed papers and articles in Turkish and English, Yavuz made 86 short and long-term educational, academic meetings, business and special-purpose international visits to 42 countries.

National and International Agricultural Policy in the Post-pandemic Period[1]

Fahri Yavuz
Ataturk University
fahriyavuz64@gmail.com

Abstact
The COVID-19 pandemic caused mobility to decrease and thus economic activities to shrink. Agricultural sector has also been adversely affected, particularly due to disruptions in the food processing and provision, economic contraction, and difficulties in accessing food. However, due to the specific characteristics of agriculture, contraction was less than other sectors. Turkey, given the variety of products being very climate of agriculture; market viability due to high demand for food products; agriculture is open to development; being close to countries with high imported food consumption; ancient agricultural culture and endemic species richness; by using the advantages well, the pandemic can be turned into important opportunities. In this section, evaluations are made by taking into consideration the specified advantages of the agricultural sector and associating them with the pandemic, and suggestions are presented for the future. Self-sufficiency in food supply, which stands out with the pandemic, will be achieved by supporting the advantage of product variety with advanced technology. Increasing tendency to access more natural, cleaner and halal food caused by the pandemic will highlight sustainable agricultural policies. The tendency to prefer rural life, which has been observed to be strengthened by the pandemic, will support reverse migration if supported by improving working and living conditions in the rural. Online digital technology solutions for provision of food forced by the pandemic will be an important tool in eliminating the current problems of the food value chain. The fall in prices due to the contraction of demand for food will requires Turkey increase food exports by using the advantage of being close to the countries depending import in food consumption. Increasing social awareness of the strategic importance of agriculture will be helpful in eliminating main problems of agriculture and the rural.

Keywords
Agriculture, COVID-19, Turkey, agricultural policies, advantages, opportunities

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Agriculture that exists with human beings is called for crop and animal production and small-scale product processing activities to meet the compulsory needs by using soil and seeds. Type of agricultural activities, technologies used and understanding of agriculture are rapidly being changed. Despite the expression "using soil and seeds" in the definition, today, we can produce soilless and even seedless crop production. Besides soil and seed, water and solar energy gain more importance in agriculture and thus production can also grow vertically. While family business maintains its importance, the trend towards mass agricultural production is increasing. Sustainable agriculture, rural development, food safety[2] from farm to fork and good agricultural practices take place more on the agenda. In addition to these, after the COVID-19 pandemic, self-sufficiency tendency will come to the fore in food production.

A New Zealand three-person family farm who produce large quantities of kiwi, avocado and corn only makes business decisions and gets her business in the field done by professional firms. In Saudi Arabia, a large dairy farm has 85,000 dairy cows, and can produce an average of 41 liters of milk per cow per day in the middle of the desert, with four milking per day. Farmers in Japan can produce seedless crop production on the water by vegetative reproduction method. A farmer producing soybeans and corn in the United States is able to sell his product, which has not yet been produced in the futures markets by phone or online. A Finnish dairy producer, using an automatic milking system where cows that need to be milked are milked by their will, establishes the welfare of the animals. In Italy, a family farm can both offer and sell her products to the customer who came to the highland by processing the milk they obtained from their cows into butter and cheese, on the rental plateau where she went for three months in the summer (Yavuz, 2017a). These forms

[2] Food safety means high quality and reliable foods that are suitable for health in terms of content.

of agricultural activities, which can be given many different examples, show the wide range of technology use and application differences in agriculture. These differences, which are the products of the human mind, point out that many more expansions can be made in agriculture.

Turkey's agriculture has the advantages of product diversity provided by climate differences, rich gene resources, ancient agricultural culture, and market vitality due to increasing population and income, and proximity to the countries with high food consumption based on imports. Turkey that has not reached the desired level of productivity in terms of food security[3] and the presence of important problems in food safety from farm to fork[4] requires using of these advantages. Since the rural life and work conditions are not good enough, the young and qualified population is leaving the countryside. A human-oriented approach to solving problems in agriculture has been overlooked and focusing more on technical problems has prevented a holistic approach and thus the desired level of success has not been achieved. The yield gap[5] remains more or less in most production areas. In addition to these advantages, increasing social awareness of strategic importance of agriculture because of COVID-19 pandemic may provide an opportunity to solve these problems with a holistic approach.

Although the use of fast-renewed technologies in agriculture is one of the basic conditions for increasing efficiency and thus eliminating the yield gap, the main difficulties in solving the technical problems of agriculture are knotted on socio-cultural, socio-economic and direct economic problems (Ülkümen, 1966). These social, cultural and economic problems of agriculture still prevent to solve technical problems. Without having a better living and working conditions in the rural areas, agricultural supports that are met at farm level and valued price and market security for agricultural products, the desired level of technology will not be achieved in agriculture. Besides, it is clear that rural development and agricultural growth will not reach the desired level without developing systems that will activate the material and moral power of rural residents and agricultural producers. Therefore, it is necessary to approach the problems of the agricultural sector with a holistic and multi-solution approach that puts people at the center.

The importance of policies to improve agriculture stems from the fact that it responds to a mandatory need such as the nutrition of the society. The verses of the Qur'an in Surah Yusuf, stating that the wheat was stored and distributed to the people at scarce times, and the words of Confucius, which explains how long a state can last depends on how many years the food stock lasts, pointed to the importance given to agriculture in the past (Yavuz, 2015). Today, on the one hand, hunger and poverty in many countries of the world, on the

[3] Food security corresponds to the amount of food that meets the needs and guarantees the nutrition of the public.

[4] The concept from farm to fork / table is used to emphasize food safety. It is the process from agricultural production to processing, packaging, storage and sales to consumption.

[5] The yield gap is the difference between the yield that can be obtained from the unit and the animal under ideal conditions and the current yield.

other hand, food shortage crisis experienced even in the richest countries, such as the embargo made to Qatar, clearly reveals the importance of correctly structuring policies towards agriculture and the food sector. This importance will increase further in the future due to the constant agricultural production resources despite the rapidly increasing world population. The difference in development between the countries of the world is because these countries produce correct and disciplined economies and thus agricultural policies and practices rather than the wealth of natural resources. In countries such as Turkey where the share of non-agricultural sector exceeds 93 % of the economy, economic growth will increase agricultural domestic demand, have advanced institutions, establish advanced infrastructures for agricultural production and marketing, and thus have a role that enhances the agricultural sector. Therefore, a wider and holistic approach to the problems of agriculture is necessary rather than the understanding that connects all successes and failures to agricultural policies and agricultural supports.

In this book section, it is aimed to produce versatile solutions for the basic problems of agricultural sector with the concept of sustainable agriculture by making use of growing social awareness of strategic importance of agriculture during COVID-19 pandemic and advantages of Turkey's Agriculture. In line with this perspective, the existing structure of agriculture and the current agricultural policies will be re-examined within the framework of the opportunities created and will may be created by the COVID-19 pandemic, and if necessary, policy changes and new policy actions in terms of improvement will be foreseen. In the second part of the book section, the global food supply security, potential of Turkey's agriculture under the sub-heads of crop production, animal production and food products and beverages manufacturing and rural development and natural resources policies in relation to the new situation created by the COVID-19 pandemic will be explored extensively. In the third part, global developments and expectations during and after the pandemic, precautions and policies on a global and national wide, and policy suggestions that can turn the crisis into opportunities will be presented.

Overview of the Situation Before the Pandemic

To expose the possible effects of the pandemic in a better way and to see and assess the opportunities that will be created by the pandemic and to provide foresights with respect to these opportunities, it will be useful to examine the global food security situation, the potential and current situation of Turkey's agriculture and rural development and natural resource policies by relating with COVID-19 pandemic.

Global Food Supply Security and Safety

The constraints of agricultural production for the growing world population have been a source of debate and concern since the past. Tertullian[6] brought the issue to the agenda in the 3rd century first, followed by Malthus[7] in the late 18th century, and the debate continued with Paul Ehrlich's[8] "population bombardment" more recently. However, with the use of mechanical and chemical, then biological and recently digital technology in agricultural production, food production has not only increased much faster than the population, but also per capita food consumption has increased. In addition to these technological innovations, a process leading to smart technology production systems with satellite support in farm management and the latest developments in agriculture 4.0 offer important opportunities in reducing costs, increasing productivity, and increasing quality.

The global population increased by 3.2 billion in the forty years between 1970-2010 and reached 6.9 billion. This population is projected to increase by only 2.15 billion to 9.15 billion in the forty years between 2010-2050. This decrease in the global population growth rate indicates that the increase needed in agricultural production will decrease in the future. Considering the estimation that per capita income will increase by 1.8 times in the next forty years, it can be predicted that the demand for animal feed, land and water resources to be used in their production will increase (Alexandratos & Bruinsma, 2012). Although it is thought that the use of corn, sugar cane, vegetable oils and cereals in biofuel production is beneficial for producers, it is highly likely that low-income people will suffer from this development. On the one hand, while agricultural resources are demanded for the production of crops used in fuel production, on the other hand, the risk of food security for countries due to the COVID-19 pandemic raises self-sufficiency and the sustainable use of resources by emphasizing sustainable agriculture.

In general, sustainable agriculture means using a wide range of solutions including nature and technology (CropLife, 2012). Sustainable agriculture is to meet the increasing global food demand, to maintain environmental quality and protect natural resources as well as to achieve effective use of advanced technologies, renewable natural resources, and on-farm resources by considering natural biological cycles. Many global developments affect food security and the overall sustainability of agricultural systems for food production. It is estimated that there will be a significant increase in the demand for agricultural products if the global population reaches around 10 billion by 2050. On the other hand, based on 2013, economic growth is projected to be 50 % by 2050. The increase in income in developing countries will increase the consumption of meat, fruits and vegetables compared to cereals and cause a shift in food preferences and thus more pressure on natural resources (FAO, 2018). Therefore, sustainability will gain more importance in agriculture.

6 Christian religious scientist Tertullian (MS 160-220).

7 Economist Thomas Robert Malthus (1766-1834).

8 Medical Scholar Paul Ehrlich (1854-1915).

The vital elements of food systems, especially seeds; it becomes capital-intensive, vertically integrated and less aggregated, that is, monopolized. In this case, small-scale producers and landless families will be the first losers and will increasingly seek employment opportunities outside agriculture, as a result of the migration of men in rural families, "women" in farming will occur in many regions of the world. Although hunger and extreme poverty have been reduced globally in the past 30 years, around 700 million people, most of whom live in rural areas, are still very poor today. Despite the undeniable improvement in reducing malnutrition and improving nutrition and health levels, around 800 million people are chronically hungry. About two billion people are faced with a lack of micronutrients. If additional efforts are not made to support pro-poor growth, by 2030, 653 million people will still be malnourished.

Global conflicts, crises and natural disasters increase in number and intensity, reducing food production, disrupting access to food and healthcare, pushing a large number of families affected by crisis and natural disasters back to poverty and hunger, fueling the heartsickness migrations, increasing humanitarian aid and weakening social protection systems. The proportion of people living under the starvation limit in low-income countries subject to crises for a long time, is 2.5 to 3.0 times higher on average than in other low-income countries.

These global developments cause many challenges for food and agriculture and require multidimensional measures. With the use of technology, it is necessary to implement innovative systems that increase productivity in production while preserving and improving natural resources. There should be a transformative process for "holistic" approaches such as ecological agriculture, agroforestry[9], climate-friendly agriculture, good agriculture and protective agriculture based on local and traditional knowledge. Technological advances help intensify natural hazards that affect all ecosystems and all aspects of human life, as well as climate change. Further international cooperation and effort are needed to prevent cross-border agricultural and food system threats through pests and diseases that cross country borders.

It is essential to rethink food systems and management to overcome existing and potential challenges. All countries are interdependent in the path of sustainable development. This requirement was seen much more clearly during the COVID-19 pandemic. Sustainable development is a perspective that goes beyond the division of countries with its "advanced" and "developing" approach. Sustainable development, which requires fundamental changes in the production and consumption of all societies, is a universal imperative and a shared responsibility for all countries. This responsibility is also an approach that takes into account Turkey to look again to agriculture and agricultural know-how Turkey has is necessary to move beyond the borders of the country in this direction.

[9] The agricultural system in which crop and animal production, tree and other similar forest products are produced together is called agroforestry.

On the one hand, while countries that have yield gap problem in agricultural production widespread the use of productivity-enhancing technologies without compromising food safety, on the other hand, countries that have sufficiently covered the yield gap should focus on environmental friendly alternative agriculture. In this way, it will be the best approach to try to balance the world in terms of sustainable agriculture. In this context, Turkey that has the potential to make very significant progress both within and outside the country must mobilize this potential in benefiting from the opportunities created by the COVID-19 pandemic.

Potential of Turkey's Agriculture and COVID-19 Pandemic

The total value of agricultural production in Turkey, ranged from 6 % to 3 % of the world according to different calculations. Turkey, in terms of agricultural production value of 51.7 billion dollars is among the world's top 10 agricultural producer (FAOSTAT, 2020). The share of agricultural production value in GDP has decreased from 15.4 % to 6.3 % in the last quarter century. This downward trend is an indicator of development as it brings it closer to the share in developed countries.

Turkey lags behind developed countries in terms of yield per unit area and per animal in the majority of crop and animal production, respectively (FAOSTAT, 2020). On one hand, Turkey gets closer to the countries with high yield in corn and sunflower, on the other hand, lags a little behind of these countries in sugar beet yield. Turkey, being a good wheat producer in the world lags far behind the developed countries in per hectare yield of wheat excluding Russia. Turkey, that gets closer to the northern European countries including Russia in meat yield per cattle, lags behind many European countries in milk yield per cow, especially the United States. This information shows that high yield dap in both crop and livestock production of Turkey. It therefore reveals how important it is to develop not only productivity, but also low-cost production systems in Turkey.

Turkey's agriculture has many advantages that are (1) diversity in agricultural production because of the regions with different climates, (2) agricultural market viability resulting from rapidly increasing population and increased demand per capita, (3) closeness to the countries with high food consumption due to imports, (4) enhancement caused by the elimination of current structural problems, especially the yield gap, (5) having important gene resources and (6) embracing the ancient agricultural culture (Yavuz, 2017b). These advantages can carry Turkey into a place where Turkey can play an important role in ensuring the national and international food supply and demand balance.

Climatic differences in different geographical regions of Turkey cause diversity in agricultural production. The variety of products provides important advantages to the agricultural sector. By producing multiple products, a farm

can reduce the damage caused by a product due to its adverse climatic or market conditions from other products produced. Likewise, the risks in the agricultural sector in a country decreases due to the production environment with this diversity. On the other hand, climate diversity enables the development of trade between the regions that concentrate on the production of different products, thereby increasing the vitality in agriculture and economy. Moreover, this diversity enables Turkey achieving self-sufficiency in food production and food consumption and contributes to the reduction of dependence on foreign agricultural products. Product diversity advantage also contributes self-sufficiency in food that became an important policy after COVID-19 pandemic.

The increase in the population, the number of foreign tourists and immigrants, and the per capita income of the Turkey in the last fifteen years have led to an increase in the domestic demand for agricultural products and thus the viability of the agricultural sector. Increases in population, foreign tourists and immigrants naturally increase food consumption at the same rate. On the other hand, rising per capita income in terms of purchasing power parity plays an important role in closing the gap in food consumption, especially animal products, in other words, increasing food consumption per capita. Thus, unlike developed countries, income growth in Turkey increases primarily food consumption, mainly in meat and dairy products and keep alive the agricultural sector. Since the stop of tourism due to the COVID-19 pandemic and the decrease in income due to the contraction in the economy will adversely affect the occurrence of this vitality, efforts to increase exports, will be beneficial until the effects of the pandemic pass.

Turkey can take an important role in the balance of the world food supply and demand after COVID-19 pandemic by increasing its production that would meet the increasing food demand within the country besides agricultural exports. Closeness to the countries with high import-based food consumption and the difficulties experienced after COVID-19 by small and / or island countries whose economy depends on Tourism and food consumption totally based on import provide significant export opportunities for increasing agricultural production potential.

Although the structural problems suitable for improvement, such as the productivity gap experienced in many crop and animal production, are considered as a disadvantage, but they offer important opportunities for the rapid development of the agricultural sector in case of solution. Important genetic resources and ancient farming culture in Turkey, is an important potential especially for improving local seed production and breeding because of self-sufficiency policy that became important after the COVID-19.

If Turkey approaches the agricultural sector by being aware of these advantages, it remains not only to have a growing economy, but also to produce correct agricultural policy actions and to implement these policies in a disciplined

manner. The crises in food production and especially in accessing to food during COVID-19 pandemic could be converted into opportunities by using these advantages so that Turkey takes more important position in national and international food supply-demand balance.

Crop Production

In the last 15 years, an increase of approximately 25 % in plant production occurred. The fruit and vegetables included in this production increased 55 % and 20 % respectively (T.R. Agriculture and Forestry Ministry, 2020). These increases are much higher than the population increase of about 14 % in the same period. In the same period, there was a decrease in the cultivation areas of wheat, barley, cotton and sugar beet, while an increase occurred in corn and sunflower (FAOSTAT, 2020). Despite these reductions in the cultivation area of some crops, unit area yields increased. Despite the decreases in wheat and barley production, continuous yield increases in the long run increased total production. This trend, which gradually closes the yield gap, should continue in the direction of approaching the countries with high yields without compromising food safety. Production costs need to be reduced not only by increasing productivity per hectare but also by using production resources more effectively.

Despite the decrease observed in the cultivated land areas, the areas where fruit production is made increased (TURKSTAT, 2020a). Turkey must shift fruit orchards to the sloping lands so that field crops could be produced on the base lands where two or three harvests are made annually. Turkey is a major exporter of fruits and vegetables. In addition to hazelnuts, citrus fruits, raisins, apricots and figs, cherry and tomato are among the important export products. Good agricultural practices and organic agriculture should be made widespread for these export products and thus a good image could be attached to Turkey's export products. In this way, Turkey's share of international market could increase by making use of the opportunity that occurs from increasing awareness of food safety because of the COVID-19 pandemic.

The greenhouse cultivation area, which has intensive input use, has increased by 40 % in the last 15 years. The increase in income and the rapid change in out-of-season consumption habit necessitate a faster increase in greenhouse production. The ornamental plants sector, which has a relatively small share but great potential in terms of trade volume and is quite young and dynamic compared to competing countries, has grown 2.5 times in the last fifteen years (TURKSTAT, 2020a). Despite this increase, the foreign trade deficit continues in the ornamental plants sector. The allocation of unused quality treasury lands to the producers of ornamental plants through long-term leases will make significant contributions to the sector. Since the products whose product value chain, especially greenhouse and ornamental plants, are complex and sensitive, are most affected in the COVID-19 pandemic, it is necessary to closely follow and strengthen the market supply chain of these products for sustainability and self-sufficiency.

Animal Production

Turkey's share of animal products in the production value of agricultural production value in 1995 was 18 % rose to 25 % in 2003, to 34 % in 2017 (TURKSTAT, 2020). While this rate is 43 % in European average, it is 50 % in Northern European countries (EROSTAT, 2020). The continuous increase of this share shows that the trend is in the right direction. It is observed that animal numbers increased by 66 % in bovine and 81 % in ovine in the last 10 years, and the number of animals increased to 17.8 and 48.5 million, respectively (T.R. Agriculture and Forestry Ministry, 2020a). It is essential that the significant increase in yields observed in meat and milk production continues with good care and feeding conditions as well as versatile breeding and selection. The fact that animal husbandry supports, which have increased from 5 % to 30 % in the last 15 years, increased by 40 % in 2020 indicates that these positive developments in animal husbandry will continue (T.R. Presidency, 2020). Ovine breeding can be done more profitably with a good herd management by increasing the twin birth rate and reducing costs.

Chicken meat and eggs, which are mass-produced by concentrating in certain regions, both take very important part in the nutrition of the society and bring foreign currency to the country through foreign sales (T.R. Agriculture and Forestry Ministry, 2020b). Turkey has the largest companies in the poultry industry. It is stated that there are 1.5 million people working in many fields such as pharmaceuticals, vaccines, sub-industry, transportation, marketing, as well as farmers, tradesmen, raw materials producers who make a living from this sector. Corn and soybean which is the main material of the feed constituting 68 % of the production cost of the poultry sector as well as breeding material are imported significantly. The continuation of the developing momentum of the poultry sector depends on its success in reducing the dependence on imports of input.

Turkey carries out the production of 650 thousand tons of aquatic products, including hunting by half and the cultivation by other half with an important of navy and hence fisheries. Approximately one third of its aquaculture production is obtained from inland waters and the rest from seas. More than 90 % of the production made by hunting was from the seas, the rest from inland waters. The total foreign trade amount of the sea products exceeded 1.1 billion dollars in 2017, yielded a trade surplus and provided foreign currency. The per capita consumption of fishery products is around 6 kilograms. This figure is under the world and European average. Although this low level of consumption, the increase in fish prices in recent years could not be prevented (T.C. Agriculture and Forestry Ministry, 2020b). Among other efforts to increase domestic consumption of seafood, value added tax should be reduced to 1 % in wholesale and 8 % in retail. This fragile structure of the fisheries sector, which is one of the sectors most affected by the Cov-19 pandemic, should be improved.

Turkey is the world's second largest honey producer where honey production increase of about 50 % in the last fifteen years. However, it ranks low in terms of productivity per colony (hive) (T.R. Agriculture and Forestry Ministry, 2020b). It is necessary to increase the production of other beekeeping products such as pollen, royal jelly, propolis, which provide a significant amount of additional income and to market them at sufficient value. It is also important for beekeeping sector to produce queen bees suitable for the conditions of different regions, to expand organic honey production and to continue current supports with increased amount. Also working with high yield, strong and healthy colonies; keeping the colonies in rich pastures where natural conditions are suitable; use of modern equipment and providing sufficient knowledge and experience for the beekeepers will improve beekeeping sector in Turkey (Yavuz et al., 2016).

Food and Drink Manufacturing

The agricultural products produced on the farm reach the consumers with a marketing chain that goes from "field to fork" with its commonly used expression. Each of the transport, storage, processing and exchange activities in this chain creates added value by generating benefits (Kohls & Uhl, 1990). The food and beverage manufacturing industry, which performs one or more marketing functions, primarily by changing the shape by processing agricultural products, plays an important role in the industrialization of the country besides its social and economic well-being. Turkey, located in the world's first twenty economies, is the world's 15th exporter in the food and beverage industry (Keleş, 2013).

The main problem of the food and beverage industry related to the agricultural sector is the inability to supply the desired quality and quantity of raw materials to the industry in a sustainable way. According to the assessments, the ratio agricultural products processed in developed countries is 70 % while it is an average of 30 % in Turkey. Therefore, it is important to expand the integration of the agriculture and food industry, to increase the quality of raw material production, to include diversifying activities, to increase the efficiency of small manufacturing enterprises, to make technological renewal in all branches of the food industry, to establish and implement quality management systems effectively.

The future technologies, called "Industry 4.0", which have undergone a great change in the food and beverage manufacturing industry through digitalization, should also be on the agenda of the food and beverage industry. This digital change is expected to increase in all stages of the food value chain after the COVID-19 pandemic. Rapid dissemination of content and product labels such as halal food, good agriculture, organic farming, geographical indication will also increase due to food safety sensitivity during the pandemic.

Agricultural, Rural Development and Natural Resources Policies

Although agricultural policy objectives vary between countries due to different agricultural problems, the three main objectives are similar in all countries of the world. These; To ensure the nutritional needs of the society, to increase the income level of those who work with low earnings in the agriculture sector and to ensure that family businesses, which make up a large part of the agriculture sector, can make sustainable agriculture (Yavuz, 2017c). The main purpose of rural development policies is to improve the work and living conditions in the countryside.

Rural Population, Structure and Development

Rural population growth, mechanization, the inability to create non-agricultural employment, and factors such as increased ease of transportation has brought migration from villages to cities throughout Turkey. Due to the fact that the yield gap in agricultural production could not be closed yet, sustainable sufficient income cannot be obtained and the work and living conditions in the rural areas are not at the desired level, and thus the young people move away from agriculture and rural areas. As a result, it is seen that middle age in agriculture, that is, in the rural areas, is quite high compared to the cities. While the average age is 31 in Turkey, the median is 52 in agriculture (Donat, 2018). It is not possible to revive economic activities and improve working and living conditions where people are not young. Therefore, it is necessary to make more emphasis on rural development policies that will prepare the ground for return to the village and to make investments in the food and beverage manufacturing sector, which will provide employment in rural areas to the population drawn from agriculture.

The fragmentation of the lands through inheritance or sales has greatly adversely affected agricultural production efficiency. The average farm size in Turkey has dropped to 5.9 hectares. This size is 53.8 hectares in the UK, 52.1 hectares in France, 45.7 hectares in Germany (Aksöz, 2014). The Law No. 6537 on the Amendment of the Land Protection and Land Use Law was published and put into effect to prevent the division of the lands by inheritance (Official Gazette, 2014). Acceleration of land consolidation works for fragmented and scattered lands with similar purposes with this law has also been an appropriate practice. While the consolidation works are carried out for 450 thousand hectares between 1961-2002, the area whose planning works have been completed from 2003 to 2014 is 4 million 532 thousand 785 hectares with the ones continuing their applications.

Programs, projects, investments, and supports are being continued to improve working and living conditions respectively in agricultural activities and rural areas. Rural development projects are being carried out with the LEADER program, especially the EU IPARD program, the Agriculture and Forestry Ministry's Young Farmer support, grants by regional development agencies and other rural development supports. In a rural area where social, economic, cultural and organizational living conditions are not improved and young

people are not attracted, there will be no future of the agricultural sector. Rural development programs that contribute to the creation of improved working and living conditions that will attract young people should have the characteristics of mobilizing local initiatives, developing a project work habit, evaluating local potentials and learning from each other by making good practice examples visible.

Agricultural Inputs and Supports

The most important inputs that increase productivity in crop and animal production are diesel oil, chemical fertilizer, seed, feed, agricultural credit, and irrigation. The main objective of the input policies is to remove the restrictions on the availability of the quantity, quality and conditions needed in these inputs. The optimum use of chemical inputs is of particular importance for food safety, which is becoming increasingly important. Diesel, which is one of the most important inputs and cost items of agricultural production activity, has become more important with the increase of mechanization in agriculture. While the seed was considered as the main source of only plant production in the past, today it is also considered as the basis of plant health and food safety. Supports given for water use and irrigation investments are important for the desired use of irrigation water, which is a very important input. Along with the supports given to fertilizers, medicines and seeds, the increasingly strong oligopoly structure should be prevented and dependence on import should be reduced.

The agricultural supports given to guide the agricultural sector in the desired direction are government interventions that are put into practice and terminated when there is a need and no need respectively to solve the problems arising in the sector, to adopt new technologies and to eliminate production deficiencies. The main goal is to create a sector that is competitive and not dependent on supports, that is, which can stand on its own feet (Official Gazette, 2019). Therefore, agricultural supports are expected to both positively affect farmer income and contribute to the solution of the sector's problems. However, the shock caused by the COVID-19 pandemic highlighted self-sufficiency as in countries around the world, as well as competitive agriculture. Therefore, agricultural supports will be shaped in this direction after the pandemic.

Agricultural supports have increased continuously in the last sixteen years, from about 1.8 billion TL to 14.5 billion TL, and livestock supports within these supports have increased from 83 million TL to about 4 billion TL. When the real value of the supports, which appear to have increased by eight times its nominal value, has increased 2.1 times in real Euro and 2.6 times in real TL in the last sixteen years (Yavuz and Dilek, 2019). In 2020, the supports increased by 30 % compared to the previous year and reached 22 billion TL (Official Gazette, 2019b). Agricultural supports; It can be grouped under six headings as area-based, difference payments, livestock, rural development, agricultural insurance and other agricultural and compensatory supports. The ratio of area-based and difference payment supports that make up plant production

supports has decreased from 93 % to 50 % in total in the last 16 years. The most important factor in this decline is direct income supports, which increased to 85 % of all supports in the early 2000s. Livestock supports increased steadily in 2002, at 5 %, and have remained close to 30 % in the past 6 years. Rural development supports started in 2008 reached 10 %, agricultural insurance supports started in 2007 reached 7 % and the share of other agricultural supports reached 7 % (T.R. Agriculture and Forestry Ministry, 2020c).

In order for the supports to direct the farmers in the desired direction; they should be long-term, consumption support should be added to production-based supports when necessary, regional differences should be taken into consideration more, income risk insurance should be developed in addition to production risk insurance, and producers producing for the market should be considered primarily in terms of increasing the production value. Correct planning of supports, increasing the efforts and effects of the staff and technical personnel carrying the supports to the field in line with the targets, providing all information about the supports to the farmers and easy procedures of getting support are required for more effective support policies. It is important to encourage young and self-employed farmers to stay in the countryside and to carry out agricultural activities in order to achieve the purpose of the supports. For this, it is necessary to make the rural working and living conditions more competitive with the cities. The tendency to return to the rural area observed by the COVID-19 pandemic should be used for this purpose.

It is inevitable that farmers, producers, growers take part in the trade of what they produce by taking risks and cooperating. In order for farmers to participate successfully in commercial activities, it is imperative that cooperatives and producer unions of which they are members are functional and professional. There is a need for policy actions that will make producers' associations and cooperatives effective in order to reduce the price difference received by the producer and the price paid by the consumer. While consumer sales rate of 90 % in the case of producers' associations in developed countries, it is only 6 thousand in Turkey (T.R. Commerce Ministry, 2018). Policies that produce solutions should be developed by making good use of the digital technology to solve food supply chain problems caused by the COVID-19 pandemic in order to reach the farmer more of the price paid for food, especially fresh fruits and vegetables.

International Agricultural Trade

In countries like Turkey where agriculture is an important part of the economy, a significant increase in the supply of agricultural products occurs over time. As this increase will be higher than the increase in domestic demand, agricultural exports must be engaged in order to prevent the price drops that may occur and thus farmers to obtain sufficient income. Turkey's agricultural exports increased by about 4.4 times last fifteen years, nearly 20 billion dollars, while imports exceeded 15 billion dollars in the same period increased by

5.4 times (T.R. Agriculture and Forestry Ministry, 2020b). In international trade of agricultural products, Turkey should give priority to high value-added products, create image and brand by expanding good and organic farming practices in traditional export products, increase international market diversity and size, raise the quality standards in export products, should establish the international market infrastructure well and ensure its continuity. After COVID-19 pandemic, in order to prevent possible decline in domestic agricultural product prices in the future, Turkey should increase the existing export potential. For this; Turkey should use its advantage of being close to the countries depending heavily on imports of food consumption. Moreover, Turkey should help small island countries where food consumption totally based on imports to eliminate the difficulties they encounter in reaching food after the pandemic.

The main purpose in relations with the European Union should be not to become a member, but to make the best use of the opportunities and resources provided by the membership process. In this sense, in order to comply with the Common Agricultural Policy, it is necessary to focus on rural development policies in particular, thus making the most of IPARD rural development supports. By updating the Customs Union agreement, the range of Customs Union products will expand to cover agriculture, services, industry, and public procurement. It is also aimed at preventing the victimization of Turkey will sign the Free Trade Area of the European Union with third countries. Turkey should carry out well the negotiation process with the EU because it is the most important market in the trade of agricultural products. For this; to make maximum use of opportunities for the continuation of the process; updating existing policy tools; to develop new policies and to grow, develop and strengthen trade relations by increasing the competitiveness by making maximum use of derogation and special product privileges if necessary. In this sense, opportunities occurred after the COVID-19 pandemic should utilized for the benefit of Turkey in governing relations with EU.

Turkey that takes place in the group of developing countries according to the classification of World Trade Organization (WTO), can benefit from the privileges accorded to this group. In addition, developed countries reduce their export subsidies, customs duties and their agricultural support. As a result of all these reductions, Turkey is able to achieve some gains in terms of competitiveness of agricultural products in foreign markets. In domestic supports, there is no problem in possible liabilities if the input and price supports and premiums are less than 10 % of the total support budget. As the alternative product supports applied in hazelnut and tobacco under the blue box measures will not exceed 5 % of the total agricultural production value, there is no obligation to affect these supports negatively. It is understood that supports such as direct income, rural development, food security, infrastructure investments and general services included in the green box measures could be implemented as they are today. It is inevitable for Turkey to establish a competitive agriculture because of WTO's trade mission of a competitive free

trade. However, the self-sufficiency tendency of countries formed with the COVID-19 pandemic may require different approaches.

Food safety and Consumption
Consumer preferences, governmental incentives and producer which are the three main immersive drivers that lead to the development of alternative agriculture, called good, natural and organic initiatives should be supported (Yavuz, 2017d). In addition to supporting large-scale commercial alternative agriculture, it should expand the facility of hobby gardens in areas where there is no agricultural production in cities, facilitate vegetable production in the gardens of houses and apartments, if any, and small farmer markets, especially based on local products, associated with rural development and contacting the consumer directly. For quality, healthy and safe consumption, plant and animal health control should be done very well, food inspections should be carried out on time and on site, basic food consumption should be supported, food information pollution should be eliminated, halal food, food content and shelf life practices should be implemented, environmental awareness in the food value chain must be aimed. The tendency to reach more reliable food after COVID-19 will serve these purposes.

Natural Resources, Environment and Agricultural Forestry
Soil, water and air, which are the main components of natural resources, are the main resources used in agriculture and their careful use is essential for sustainability. Agricultural land, forest and pasture are part of the whole ecosystem and interact with each other. One of the important issues for the sustainability of this ecosystem is the misuse of forests and the other is to waste the production resources available in and around the forest in order to protect forest areas. Agricultural forestry, which is an increasing trend in the world in this context; It is a form of land use that provides combined land use and increases the productivity of the land by combining forestry, crop production and animal husbandry on the same land at the same time or in succession (Turna, 2013). Agricultural forestry with its multi functionality is also a part of the solution of environmental, economic, and social problems on the agenda. Agroforestry, which is compatible with sustainable resource use, development, agriculture, and food security policies, can be predicted to come to the fore more after COVID-19 pandemic.

A policy or practice that concerns the agricultural sector will affect the environment, as well as environmental decisions can be influenced directly (Yavuz, 2015). Agricultural activity may have negative environmental impacts on water and soil resources, biodiversity, and climate. In order to mitigate these effects, organic farming law and regulations, good farming practices, genetically modified organisms (GMO) and agricultural law, including the support for biological security and environmental protection (ÇATAK), are policies aimed at reducing these effects. In addition to improving these policies, it is to realize sustainable production, consumption, and development, which is the main purpose of environmental policies, by introducing new ones based

on the need. Instead of being at the extreme in environmental policies, there is a need for policies that find the middle way, and therefore, it is necessary to act in this direction as sustainability comes to the fore in environmental policy as in every field.

Foresights During and After Pandemic

As mentioned in the history of pandemics, the pandemic COVID-19 has caused many significant changes in all areas of life throughout the world as well as in Turkey and will continue to do so in the future. After December 2019 around the world and after March 2019 in Turkey in all sectors from agriculture to health, we will be observing the impact of the extraordinary developments taking place in every field from education to working life in the coming years. Just as we were making comparisons by saying before and after the 1929 Great Depression, it seems that we will make evaluations in every field before and after COVID-19, especially in academic studies. Implications for the possible future effects of the pandemic have quickly taken place and will take place in the institutions' web pages, scientific articles, magazines, press and social media. Here, global developments during the pandemic, the situation in Turkey, measures and projections for future will be discussed in the context of agriculture.

Global Developments and Expectations

Both life and livelihoods are at risk due to the COVID-19 pandemic. Although in some countries, the spread of the pandemic has slowed, and cases have decreased; in others it continues to spread again or rapidly. It is known that the global pandemic will eventually withdraw, but there is uncertainty how fast this will happen. It is also observed that this shock is a bit unusual as it affects both food supply and demand. Unless rapid action is taken to protect the most vulnerable people, keep global food supply chains alive, and mitigate the effects of the pandemic on the food system, there will be an increasing risk of food crisis (FAO, 2020a). Closure of borders, quarantines and market, supply chain and trade disruptions restrict people's access to adequate/diverse and nutritious food sources, especially in countries that have been hit hard by the virus or are already affected by high levels of food insecurity.

In fact, there is enough food production globally to nurture everyone. All policy makers in the world should be careful not to repeat the mistakes made during the 2007-2008 food crisis and turn this health crisis into a completely preventable one. Due to the increase in unemployment rates and the greater economic effects of COVID-19; the significant slowdown of all economies in the world, and especially the weakest economies, forces countries that depend on food imports, especially in food supply. On the other hand, prices will fall in 2020 as food demand will decrease in the coming months, which will have a negative impact on farmers and the agricultural sector. Since the supply of food was sufficient and the markets were stable during the pandemic, the

cuts were reduced to a minimum despite difficulty in the supply of high-value goods such as fruits and vegetables.

As of May 2020, problems are still expected in food supply chains, especially in high-value products such as fruits, vegetables, meat, fish, milk (The Guardian, 2020b). Movement constraints and the basic avoidance behavior of workers can slow down the activities of farmers, agricultural workers and those who process agricultural products. Lack of fertilizers, veterinary medicines and other inputs can affect agricultural production. Closure of restaurants and less frequent daily needs exchange will affect manufacturers and suppliers by reducing demand for fresh produce and fishery products. The agriculture and aquaculture sectors are particularly affected by the break of tourism, the closure of restaurants, and the suspension of cafes and school meals. In all cases, the most affected are immigrants, displaced and those who are exposed to conflicts.

Around 820 million people in the world live in starvation, meaning they consume insufficient amounts of calories for a long period of time for a normal active life. According to an analysis by the United Nations Food and Agriculture Organization (FAO) on April 24, 2020, in the absence of timely and effective policies, millions of people are likely to join the ranks of hunger as a result of the stagnation triggered by COVID-19 (FAO, 2020a). This number may increase from 14.4 million to 38.2 million, or even 80.3 million, in the case of an average 10-point contraction in the GDPs of 101 countries that are net food importers in the world. According to the 2020 Global Food Crises report published in April, at the end of 2019, 135 million people in 55 countries and regions were estimated to experience acute food insecurity in situations such as the COVID-19 pandemic (FAO, 2020b). 73 million out of 135 million faced with this crisis are in Africa; 43 million live in the Middle East and Asia and 18.5 million live in Latin America and the Caribbean.

In addition, as of the end of 2019, it is likely that 183 million people in these 55 countries and regions are not at the crisis level yet, but are at risk of falling into crisis levels if they are exposed to acute food insecurity and face COVID-19 shock or stress. In addition to food security, small countries dependent on exports and tourism too much in terms of income will experience significant problems due to the pandemic (UNCTAD, 2020). These countries, which are heavily dependent on the export of primary goods such as food, raw materials, and fuel, will be affected by a significant decrease in demand from developed countries. If the countries in Africa cannot export their products such as oil and cotton, their income will continue to decrease. In addition, there are much more significant problems for small islands and regions, most of which are dependent on oil exports and tourism income. Because the main sources of income which is tourism is shut down and will probably continue like this or slow down significantly until a vaccine or treatment is provided.

Vulnerable groups include small-scale farmers, immigrant and informal workers, immigrants and fishermen who are prevented from working on their land, looking after farm animals or fishing. In addition, these segments will have difficulties accessing markets with higher food prices due to selling their products, purchasing basic inputs or limited purchasing power. Informal workers will be greatly affected by job and income losses during harvesting and processing. Millions of children are already missing school meals they obtain safely, and many do not have official access to social protection, including health insurance. Suspending school meal programs due to the pandemic puts vulnerable children's food safety and nutrition at risk, while weakening their capacity to cope with diseases. Livelihoods, food security, nutrition and trade will be negatively affected in countries based on the fisheries sector, which provides more than 20 % of the protein need of 3 billion people in the world and 50 % in some underdeveloped countries and produces the most traded food in the world.

It is a complex network that covers food supply chain producers, consumers, agriculture and fisheries inputs, processing and storage, transportation and marketing. The cuts are minimal, as the food supply is sufficient during the pandemic and the markets are stable so far. Global grain stocks are at a comfortable level, and for 2020, the outlook for wheat and other essential crops is positive. High value goods such as fruits, vegetables and fish may have difficulties that are not yet fully observed due to the locking and deterioration in the value chain. Significant market changes may occur in the fisheries and aquaculture and fishing sector, which affect prices due to restrictions in transportation, border closures, tourism developments and demand for restaurants and hotels.

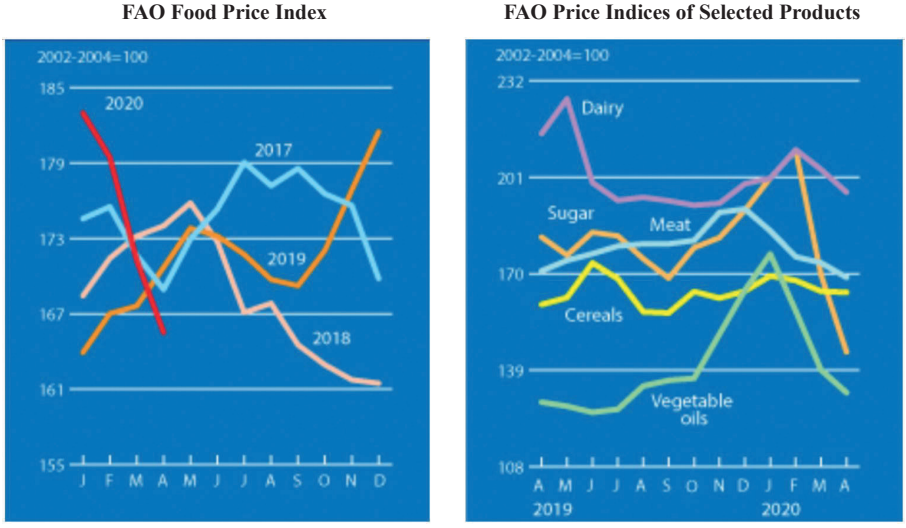
Although there has been a significant increase in demand at the beginning of the COVID-19 pandemic, food demand is generally not flexible, and although dietary patterns change, the effect of the pandemic on overall consumption will likely be limited. There is a relatively greater possibility of a reduction in animal protein consumption, with the concern that the virus is infected by animals. Sudden drops may also be seen in consumption of other high-value products such as fish, fruits and vegetables. Food demand in poor countries is more linked to income, and loss of income-generating opportunities can adversely affect consumption. Fear of contagion can lead to a decrease in visits to food markets, and it seems that there has been and will continue to be lower restaurant traffic, increased e-commerce deliveries, and home food growth changes in the way people buy and consume food.

Since the beginning of May 2020, international prices of some important food products such as corn, wheat and palm oil started to decrease. The only main food that sees rising prices is rice, and this rise was due to the export restrictions of Vietnam, which is an important exporter, on May 1st 2020. In local markets, especially in countries already affected by hunger and other crises, some food prices are rising mainly due to local logistics problems or

import difficulties. As food demand will decrease in the coming months due to the economic contraction, prices will probably continue to drop in 2020 and this will have a negative impact on agriculture and thus on farmers. According to the price indices calculated by FAO (FAO, 2020c), in the first four months of 2020, which is the pandemic process, prices have fallen sharply compared to previous years and on a product basis (Figure 1).

International commodity trade will decrease by 13 % to 32 % in 2020 due to the COVID-19 pandemic (WTO, 2020). This decline is likely to exceed the trade decline caused by the 2008-2009 global financial crisis. Trade is likely to fall sharper in sectors characterized by complex value chain links, especially in electronics and automotive products. Service trade will also be highly affected by the implementation of transportation and travel restrictions and the closure of many retail and hospitality businesses.

Figure 1. FAO Food Price Indices by Year and Product



On the positive side, it is stated that a quick and strong recovery is possible, provided that policy makers show a reason for businesses and households to believe that the pandemic is a temporary, one-time shock. To achieve this, they must format all their financial, monetary and trade policies in the same direction. As a return to protectionism will bring new shocks over the existing ones, it will be critical to promote a more generally favorable business environment, as well as keeping markets open and predictable.

Turkey's Situation and Assessments

The three major changes caused by the COVID-19 Pandemic, which started to appear in December 2019, in all societies; decreased or stopped mobility, new uncertainty/instability, and new patterns of behavior with health

reservations. These very important changes in the flow of life have affected the supply-demand balance and price formation in a shocking manner and will continue to affect. Generally, it is predicted that it will reduce production and consumption, that is, demand and supply, and thus will have an impact that will reduce global economic growth from 2.9 % to 2.4 % and 1.5 % in case of the pandemic lasts long (IMF, 2020). It is estimated that tourism services, which have completely stopped with the pandemic, will not recover any time soon. The last one month (April 15 - May 15, 2020) in Turkey consumption among the different expenditure items with credit card declined by 5 % to 93% and by 37 % on average and this decline is expected to continue during the pandemic (TEPAV, 2020). The uncertainty that emerged during the pandemic led to an incline of people to liquidity tools such as gold and dollar instead of spending and consequently a contraction in demand. On the one hand, the liquidity instruments gaining more than 20 %, and the declines in the product price indices on the other, are important indicators of this behavior result. These decreases in supply and demand for goods and services have caused and will continue to be the cause of income decline, unemployment and growth of income imbalance.

These effects of COVID-19 pandemic on the economy have been also experienced in agriculture and food sector, which is an important branch of the economy, and these effects are expected to continue. However, due to the unique characteristics of agricultural production and products, these effects will be different from the other sectors. As due to the necessity to carry out agricultural production activities in a certain period of time without delay, the length of the vegetative and animal production period, the fact that food products are mandatory goods and quick satisfaction in consumption of these products, the elasticity of the supply and the demand of agricultural products is low. Therefore, it is estimated that the contraction in agricultural production and food consumption will be much less than other sectors, but fluctuations in food prices will be higher due to the COVID-19 pandemic.

Developments in the field of agricultural production and in the market food consumption due to the pandemic support these inferences. Farmers and agricultural workers have been exempted from curfew and quarantine practices, as agricultural activities have to be done on time. The global decline of 5 % in real GDP due to the COVID-19 pandemic will result in lower food demand (IFPRI, 2020). During the time of pandemic cases first observed in Turkey on March 13, 2020 as compared to May 1, 2020, on one hand there has been an only15 % decrease in food consumption because food is essential consumption goods for life; on the other hand, a decrease of 65 % in clothing and accessories and a decrease of 47 % in gasoline and fuel according to the expenditures made by credit cards. However, while food consumption in the tourism sector has completely stopped, eating out costs decreased by 83% (TEPAV, 2020). With the first panic of the pandemic, only 6 % of decrease occurred in food consumption in the first week of April, increased to 15 % of decrease on May 1, 2020. In other words, although it is less than other sectors, there will be an important decrease in food demand.

In mid-April 2020, covering all regions in 30 provinces of Turkey, online interviews made with farmers, agricultural engineers and veterinarians (Yavuz, 2020a) and the information obtained from a survey study (Gündüz et al., 2020) showed that winter and summer plantings were completed without problems and there will be no problems in agricultural production activities in the next production period. However, it has been determined that there may be problems such as defects in the marketing chain of fresh vegetables and fruit produced under greenhouse, increasing costs in fertilizer and feed inputs due to the rapid increase in dollar exchange rate and shrinkage in small producer markets.

In addition, it is stated that the possible problems that may occur in the export of fresh fruits and vegetables subject to export cause uneasiness. It was also stated that there will be difficulties in the provision of foreign workers employed in agricultural activities and there may be problems in the harvesting and marketing stages of agricultural products. Decline in diesel price affecting agricultural production positively, increased food stocks not hindering food supply due to the pandemic before Ramadan in May 2020, some agricultural export items being revived due to new opportunities in the international market due to COVID-19, and cultivation area increase and high yield outlook are expressed as positive developments in food supply.

Panic caused by the first quarantine practices caused an increase in food prices. However, considering the developments in the production and consumption of agricultural products detailed above, due to the COVID-19 pandemic, it is foreseen that the decrease in demand will be higher than the decrease in supply, and therefore the prices of agricultural products, especially high-value crops, will decrease with the start of the harvest season after Ramadan.

For example, in the last month (April 2020), corn, soybean and wheat prices in the USA decreased by an average of 7 %. Similar price declines trends are also observed in Turkey. According to TURKSTAT data, while annual inflation rate in April 2020 was 11.27, an average increase of 8.58 % occurred in food prices and -20.98 % annual change in fruits and vegetables prices; monthly inflation was 1.11 %, an average increase of 0.55 % occurred in producer prices and -2.77 monthly change in fresh fruits and vegetables prices (TURKSTAT, 2020). If the pandemic is taken under control in a short time in Turkey and the purpose of the slogan “it can be entered safely” in tourism can be achieved in addition to the measures taken for agricultural production, the demand may return to its normal course even if it is not in the near future. In addition, if the foreign trade surplus of agricultural products continued to increase, the fall in agricultural product prices could be prevented.

Global and National Precautions and Policies

During pandemic periods, fiscal policy plays a key role in saving lives and protecting people. Governments have to do whatever it takes. So far, countries have taken approximately $ 8 trillion in financial measures to control the pandemic and damage to the economy, that is, saving lives, protecting people from business and income losses and companies from bankruptcy.

The global emergency measures include $ 3.3 trillion higher spending and abandoned revenues, public sector loans, $ 1.8 trillion injections and $ 2.7 trillion guarantees (IMF, 2020). Twenty developed and developing country groups stand out with a total of 7 trillion-dollar business. Financial support is also provided by automatic balancers, which are features of the tax and benefit system that balances income and consumption, such as progressive taxation and unemployment benefits.

FAO warned governments that protective measures taken at the national level during the COVID-19 crisis could cause food shortages worldwide (The Guardian, 2020a). The outlook to produce essential products is promising. However, there may be problems such as the shortage of field workers brought by the pandemic crisis and a movement towards protectionism such as tariffs and export bans. The worst thing that can happen is that governments restrict the flow of food, and all measures taken against free trade will be inefficient. The pandemic is not the time to put restrictions or trade barriers, but it is time to protect the food flow in the world. Governments have to resist calls from some neighborhoods to protect their food supply by restricting exports.

Kazakhstan, which has the largest agricultural resources in the world, has put restrictions on the export of wheat flour, as well as brown wheat and vegetables such as onions, carrots, and potatoes. Vietnam, the world's third largest rice exporter, has suspended its rice export contracts. Russia, the world's largest wheat exporter, is likely to threaten to restrict exports as before. The US position is doubtful, considering Trump's willingness to trade war on other goods. Trade barriers will create excessive volatility and worsen the situation, which is often observed in food crises.

Care should be taken not to break the food value chain and logistics that need skilled collectors who work quickly with the right timing. Fruits and vegetables also require very labor-intensive production and logistics. If the workforce is blocked and people cannot move, there is an important problem. COVID-19 affects the workforce and logistics problems are becoming very important. Workforce should not be restricted while protecting people. Policies need to be created so that the workforce can continue to do its work. The most important role of governments will be to keep this food supply chain running, to intervene ensuring that there are enough workers and to protect global food markets from panicking and to develop storage facilities such as warehouse receipt system platforms where farmers can deliver their products without having to go to the markets. If possible, local markets should be kept open and tight physical measures should be taken inside and outside the markets.

Fiscal, monetary, and financial policies that are put into effect in Turkey, are similar to the government expenditures made in other countries around the world with approximately 8 trillion dollars of government spending with the Keynesian approach. As of mid-May 2020, approximately 5 million families were given cash assistance, and those who lost their jobs were also included in this aid, within the scope of the resume package, approximately 137 billion TL financing was provided to 190 thousand 453 companies, 97 % of which were Small Middle Enterprises. Within the scope of the support provided for citizens with a monthly income of less than 5 thousand TL, more than 33 billion TL of resources were offered to 5 million 582 thousand citizens. Financial support of more than 23 billion TL was provided to 1 million 16 thousand 600 tradesmen. The economic amount of the Economic Stability Shield, which has been put into practice in the fight against the COVID-19 pandemic, has reached 240 billion TL, which is around 5 % of the national income (T.R. Treasury and Finance Ministry, 2020). In addition to these financial spending policies, which mostly support income, transferring resources obtained through social solidarity to those in need will also contribute to the increase in demand for agricultural products (Yavuz, 2020). Practices that exempt farmers from the limited quarantine enacted (T.R. Interior Ministry, 2020), the seed support provided to increase summer planting and the supply of treasury land for planting will prevent the reduction or even increase agricultural production.

Policies aimed at eliminating the deficiencies occurring and will occur in the supply chain of the products whose value chain is complex and / or for export-oriented products, especially green vegetables and oranges, should be implemented dynamically with close follow-up. In order for this 2020 agricultural production period to be successful after the pandemic, providing the 2020 agricultural supports payments on time and even a little ahead is necessary and will affect future harvest years positively. In this budget congestion, the implementation of cost-reducing effective trade policies is essential in the supply of inputs dependent on imports, especially for feed ingredients and fertilizers and the products with production deficits due to the increase in the dollar exchange rate.

Policy Suggestions Converting Crisis to Opportunities

The latest 11th Development Plan of 2019-2023 expresses the goal of creating an agricultural sector that is competitive and not dependent on supports (Official Gazette, 2019a). However, COVID-19 pandemic caused the countries to stand self-sufficiency in food production. This trend can be expected to put forward Turkey's self-sufficiency in the grounds next to competitiveness policy. If the agricultural product variety existed because of multi-climate is supported by advanced technology usage, Turkey will be easily providing its self-sufficiency, which is food security. Besides efforts to create large mass-producing businesses to ensure food security, small family farming which is very common in farm structure of Turkey within their optimal / economic farm

size with respect to its agricultural resources and that provides much better sustainability should also be given importance. It should not be overlooked that the efforts to produce fresh fruits and vegetables for self-consumption in small production areas to be established within the gardens of the houses or the hobby gardens established in non-agricultural lands, if possible, will also contribute to food security and even to food safety. It should also be noted that although self-sufficiency tendencies increased after the pandemic shock, it should not be forgotten that agricultural sector has to be still competitive when it returns to normal and sustainable agriculture is highly likely to stand out and thus long-term agricultural policies should be in this direction.

It is pointed out that the first outlet of COVID-19 in China is the markets where unusual wild animal meat is sold. In fact, it is also stated that food produced from such extraordinary animals has a role in previous virus pandemics. After the pandemic, the tendency to consume more reliable, halal, clean and natural foods will increase. This attitude will also trigger the emergence of a sustainable agriculture that protects natural resources and the environment. In addition, it can be predicted that the habit of eating at home during the pandemic will decrease the consumption of food outside and increase the consumption at home compared to the pre-pandemic. Therefore, successful steps could be taken by taking the trends mentioned into consideration better in food safety policies in production, transportation, processing, packaging, storage, distribution and sale stages in food chain from the fork to the field.

It may be envisaged to prefer rural life after the pandemic, especially those who have migrated from village to city for various reasons, and their attitude towards returning to the village will be strengthened and therefore migration from rural to urban will gradually reverse. Accelerating the return to the rural with policies that focus on improving working and living conditions in the countryside and developing rural tourism based on local products will both reduce the overpopulation of the city and prevent the rural ejaculation, leading to social, economic and cultural liveliness in the villages. This attitude change provides an important opportunity to successfully achieve the goal of "increasing the production capacity of rural producers and the employability of rural labor force with the understanding of sustainable rural development" expressed in the Eleventh Development Plan of 2019-2023 (Official Gazette, 2019a). It is vital to evaluate this possible trend, especially in the regions where rural areas and villages are emptied, and unowned and agricultural resources remain idle.

Prior to the pandemic, using digital tools within the reach of the world's food agenda with online shopping and even to supply fresh fruits and vegetables has entered Turkey's agenda. This agenda was formed by the food inflation experienced in off-season vegetables, primarily potatoes and onions, in 2019. The online purchases also came to the fore a lot due to the pandemic, took an important place, became widespread and formed a habit. In parallel, the software development work for the food supply chain in the world has

accelerated as well as in Turkey. Accordingly, the Ministry of Agriculture and Forestry brought the Digital Agriculture Market (DITAP) project, which will directly bring together the producer and the buyer. The project, which is planned to be piloted first in products such as oilseeds with a production gap and in fruits and vegetables with a high marketing margin, continues. Problems in the food value chain, especially the ones such as the farmer's inability to sell his product at the value price, not being in the trade of what he produces and the high price difference between the price received by farmers and the price paid by the consumer, could be eliminated by taking advantage of the opportunities provided by the trend of digitalization, which came to the fore with the pandemic. The New Wholesale Market Law, which has been on the agenda for a long time but has not yet been concluded, and the DITAP, which has entered the new agenda, can also be concluded by taking the advantages of these trends.

During the pandemic, as the government's efforts to increase agricultural production and planting area and yield increase information from the field, showing that contrary to the decrease in the supply of agricultural products will increase, decrease in demand for agricultural products due to the contraction in the economy, eating out, tourism coming to a halt and difficulties in accessing food will probably decrease the prices of agricultural products. Turkey, by increasing the export of agricultural products, can prevent this possible price decrease. It can be done by using the advantage of closeness to the countries with food consumption based on imports, and by eliminating the difficulties in accessing food caused by the epidemic of small and / or island countries that are completely dependent on imports. This increase in exports can make a significant contribution to the country's economy with its increasing foreign exchange supply and, if necessary, to the reputation of the country with food grants, such as healthcare supplies, which were provided as grants to many countries during the epidemic. In order to reach increasing export potential at this level, the problem of yield gap, which is an important structural problem of agriculture, should be solved primarily by accelerating the transfer of high technology to agriculture.

The emergence of the strategic importance of the agricultural sector with the COVID-19 pandemic has created a positive social awareness towards agriculture. By making use of this awareness and improving the conditions of work and living in the countryside, it is very important to ensure that those, especially young people, who are related to agriculture and rural, return to agriculture and villages. In addition, this awareness should be increased by an educational policy in the form of the plays in the kindergarten, the content of the lessons in elementary school, the courses in high school, and the productions in the media that involve in agriculture, farming and role model people working in agriculture. In addition, it is essential for the future of the agricultural sector to ensure food supply security and safety to attract post-high school young people's higher education preferences to agriculture, veterinary, aquaculture, food and forestry higher education with adequate incentives and

to place some of them in agricultural higher education from the top 0.1 % slice of the students who enter university exam.

Since agricultural sector which is very much dependent on natural conditions such as climate, market changes such as prices and shocks such as the pandemic experienced in 2020 needs to be governed by regulating, supporting and inspecting policies. In order to govern agriculture sector in a better way especially in the times of pandemic, it is necessary to trace and evaluate agriculture and food market very closely so that precautions such as regulation, support and inspection could be taken to solve the problems on time. It is necessary to collect all type of data of agriculture and food market, analyze them and asses the results of analyses to trace and evaluate the market of agriculture and food. This mission could successfully be borne by an autonomous intuition namely "Agriculture and Food Market Tracing and evaluating Intuition". Foundation of an institution by this name and the function specified became very urgent especially after the COVID-19 pandemic.

References

Aksöz, S. (2018). Tarım Arazilerinin Miras Yoluyla Bölünmesine Devlet Freni, *Senkron Y. M. M*. Retrieved from: http://www.senkronymm.com.tr/SirkulerDetay.aspx?id=30 (15.05.2020)

Alexandratos, N. & Bruinsma, J., (2012) *World Agriculture Towards 2030/2050: The 2012 Revision*, Agricultural Development Economics Division Food and Agriculture Organization of the United Nations, ESA Working Paper, No. 12-03, Haziran 2012.

CropLife (2012). Feeding Nine Billion: The Issues Facing Global Agriculture", Crop Life International, Retrieved from: https://croplife.org/wp-content/uploads/pdf_files/Feeding-Nine-Billion-The-Issues-Facing-Global-Agriculture.pdf (22.05.2020)

Donat, İ. (2018). *Tarım ve Gıda Zirvesinden Akılda Kalanlar*, Retrieved from: https://www.bloomberght.com/yorum/irfan-donat/2117985-tarim-ve-gida-zirvesinden-akilda-kalanlar (18.05.2020)

EUROSTAT (2020). Retrieved from: https://ec.europa.eu/eurostat/web/main/home (23.05.2020)

FAO (2018). *The Future of Food and Agriculture: Alternative Pathways to 2050*, Food and Agriculture Organization of the United Nations Rome. Retrieved from: www.fao.org/3/I8429EN/i8429en.pdf (20.05.2020)

FAO (2020a). *COVID-19 pandemic – impact on food and agriculture*. Retrieved from: http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/en/ (10.05.2020)

FAO (2020b). *Global Report on Food Crises reveals scope of food crises as COVID-19 poses new risks to vulnerable countries*. Retrieved from: http://www.fao.org/news/story/en/item/1271868/ icode/ (16.05.2020).

FAO (2020c). *In April the FAO Food Price Index fell for the third consecutive month*. Retrieved from: http:// www.fao.org/worldfoodsituation/foodpricesindex/en/ (16.05.2020)

FAOSTAT (2020). Retrieved from: www.fao.org/faostat/en/#data/Ql, (21.05.2020)

Gündüz, O., Aydoğan M. & Uysal, O. (2020). *COVID-19'un Çiftçilerin Faaliyetlerine Etkisi Anketi*, Malatya Turgut Özal Üniversitesi. Ziraat Fak. Tarım Ekonomisi Böl., (17.04.2020) Malatya.

IFPRI (2020). Poverty and food insecurity could grow dramatically as COVID-19 spreads. Retrieved from: https://www.ifpri.org/blog/poverty-and-food-insecurity-could-grow-dramatically-covid-19-spreads (13.05.2020)

IMF (2020). *Fiscal Policies to Contain the Damage from COVID-19* Retrieved from: https://blogs.imf.org/2020/04/15/fiscal-policies-to-contain-the-damage-from-covid-19/ (15.05.2020)

Keleş, M. (2013). Türkiye Gıda Sanayi Strateji Belgesi ve Eylem Planı Hazırlık Çalışmaları, *Kalkınmada Anahtar Verimlilik*, T.C. Sanayi ve Teknoloji Bakanlığı. Retrieved from: http://anahtar.sanayi.gov.tr/tr/news/turkiye-gida-sanayi-strateji-belgesi-ve-eylem-plani-hazirlik-calismalari/575, (24.05.2020)

Kohls, R. L. & Uhl, J. N. (1990). *Marketing of Agricultural Products*. New York: Macmillan Publishing Company.

Resmi Gazete (2014). Toprak Koruma ve Arazi Kullanımı Kanununda Değişiklik Yapılması Hakkında Kanun, *Resmî Gazete*, 15 Mayıs 2014, Sayı: 29001, Kanun No: 6537.

Resmi Gazete (2019a). On Birinci Kalkınma Planı (2019-2023), *Resmi Gazete*, 23.07.2019, Sayı: 30840, Ankara.

Resmi Gazete (2019b). 2020 Yılı Cumhurbaşkanlığı Yıllık Programı, Resmi Gazete, 4.11.2019, Sayı: 30938 (Mükerrer), Ankara.

T.C. Hazine ve Maliye Bakanlığı (2020). Retrieved from: https://www.hmb.gov.tr/haberler/hazine-ve-maliye-bakani-sayin-berat-albayrak-video-konferans-ile-deik-toplantisinda-sorulari-yanitladi (13.05.2020)

T.C. İçişleri Bakanlığı (2020). Retrieved from: http://www.bingol.gov.tr/icisleri-bakanliginin-mevsimlik-tarim-iscileri-ve-hayvancilik-faaliyeti-ile-ilgili-genelgesi (08.05.2020)

T.C. Tarım ve Orman Bakanlığı (2020a). Bitkisel Üretim, Retrieved from: https://www.tarimorman.gov.tr/ Konular/Bitkisel-Uretim/Tarla-Ve-Bahce-Bitkileri/Urunler-Ve-Uretim (22.05.2020).

T.C. Tarım ve Orman Bakanlığı (2020b.) Veriler, Retrieved from: https://www.tarimorman.gov.tr/sgb/Belgeler/ SagMenuVeriler/BUGEM.pdf, (22.05.2020)

T.C. Tarım ve Orman Bakanlığı (2020c). *III. Tarım Şurası Tarımsal Destekleme Politikaları Çalışma Grubu Raporu*, 17 Temmuz – 24.11.2010, Ankara (Unpublished)

T.C. Ticaret Bakanlığı (2018). Ticaret Bakanı'ndan 'Hal Yasası' Açıklaması, Bloomberg, 4.11.2018.

TEPAV (2020). COVID-19'un Tüketici Harcamalarına Etkisi - 11.05.2020, Retrieved from: https://www.tepav.org.tr/upload/files/1589182453-5.COVID_19un_Tuketici_Harcamalarina_Etkisi_Bulteni_11052020.pdf (11.05.2020)

TİGEM (2018). 2017 Yılı Hayvancılık Sektör Raporu, *TİGEM*, Ankara.

The Guardian (2020a). Coronavirus measures could cause global food shortage, UN warns Retrieved from: https://www.theguardian.com/global-development/2020/mar/26/coronavirus-measures-could-cause-global-food-shortage-un-warns (21.05.2020)

The Guadian (2020b). A disastrous situation: mountains of food wasted as coronavirus scrambles supply chain, Retrieved from: https://www.theguardian.com/world/2020/apr/09/uscoronavirus-outbreak-agriculture-food-supply-waste?CMP=oth_b-aplnews_d-1 (09.05.2020)

Turna, İ. (2013). *Tarımsal Ormancılık (Agroforestry)*, KTÜ, Orman Fakültesi Ders Notları, Yayın No: 87, Trabzon.

TÜİK, (2020a). Tarım İstatistikleri, Türkiye İstatistik Kurumu, Retrieved from: http://www.tuik.gov.tr/Pre Tablo.do?alt_ id=1001 (14.05.2020)

UNCTAD (2020). COVID-19 and food security in vulnerable countries, Retrieved from: https://unctad.org/ en/pages/newsdetails.aspx?OriginalVersionID=2331 (08.05.2020)

Ülkümen, L. (1966). *Tatbiki Bir Görüşle Ziraat Politikamız: Ana Hatlarıyla Zirai Reform / Zirai Organizasyon*, Ankara: Türkiye İş Bankası Kültür Yayınları.

WTO (2020). Frequently asked questions: The WTO and COVID-19, Retrieved from: https://www.wto.org/ english/tratop_e/covid19_e/faqcovid19_e.htm (07.05.2020)

Yavuz, F. (2020a). Türkiye'nin Her Bölgesinden Sahadaki 30 Çiftçi, Ziraat Mühendisi veya Veteriner Hekim ile Birebir Telefon, E-posta ve Whatsapp Yoluyla Yapılan Tarımsal Faaliyetlerin Görünümü Görüşmeleri, 13-21.04.2020, Erzurum (Unpublished).

Yavuz, F. (2020b). Tarıma Koronavirüs Etkisi, *Kriter: Aylık Siyaseti Toplum ve Ekonomi Dergisi*, 46, 86-89.

Yavuz, F. & Dilek, Ş. (2019). *Türkiye Tarımına Yeniden Bakış*, Siyaset Ekonomi ve Toplum Araştırmaları Vakfı (SETA) Yayınları 137, İstanbul.

Yavuz, F. (2017a). Tarıma Farklı Bir Bakış, *Pusula Gazetesi*, 21 June 2017.

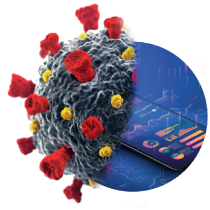
Yavuz, F. (2017b). Türkiye'de Tarım, *Pusula Gazetesi*, 28 June 2017.

Yavuz, F. (2017c). Tarım Politikaları Neden Hep Gündemde, *Pusula Gazetesi*, 9 August 2017.

Yavuz, F. (2017d). Alternatif Tarım Üzerine, *Pusula Gazetesi*, 27 September 2017.

Yavuz F. vd. (2016). *Erzurum İli Muhtemel Tarımsal Yatırım Alanları Rehberi*, Kuzeydoğu Anadolu Kalkınma Ajansı (KUDAKA) Rapor, Erzurum.

Yavuz, F. (2015). *Tarım Politikası Ders Notları*, Atatürk Üniversitesi Ziraat Fakültesi Yayınları, No: 252, Erzurum.



The Importance and Social Impacts of Space Studies in the Context of International Relations in the Post-pandemic Period

Lokman Kuzu

Prof. Lokman Kuzu

He received a B.Sc degree in Electrical and Electronics Engineering from Middle East Technical University (METU) in 1997. He obtained his M.Sc. and Ph.D. degrees from Syracuse University, in 2003 and 2006, respectively. Dr. Kuzu worked as the Director of the Space Technologies Research Institute of TUBITAK between 2014-2019. He worked on satellite projects such as TURKSAT 6A, the first domestic communications satellite of Turkey and high resolution observation satellite İMECE. He is an expert on RF/Microwave. He is a faculty member of the Electrical and Electronics Engineering department at Karabuk University and also he is the board member of Turkish Space Agency.

The Importance and Social Impacts of Space Studies in the Context of International Relations in the Post-pandemic Period[1]

Lokman Kuzu
Turkey Space Agency Board Member
lokman.kuzu@tua.gov.tr

Abstract
Driven by Cold War tensions between the US and the Soviet Union, the space race began in the late 1950s. As satellite technologies have become an integral part of our daily lives, they have profoundly influenced the course of human civilization for more than 60 years. These technologies have provided humanity with many remarkable insights the world over. For example, observation satellites provide a continuous view of our planet for effective monitoring of the environment. There are clear turning points in history when things changed and new courses were plotted. The space community is experiencing such a point today. In this paper, we briefed the space sector and we tried to give some information regarding the impacts of the COVID-19 outbreak to this sector. We also highlighted the importance of working together to find solutions to the problems that humanity is now facing. In this new era, only the cooperative approach to space can ensure that all countries and peoples can benefit from what space activities have to offer.

Keywords
Astronomy, COVID-19, Satellite Technologies, Space

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The novel Coronavirus COVID-19 (technically named as SARS CoV-2), which emerged in Wuhan, China in December 2019, has quickly spread to many countries and caused government agencies to take drastic measures in order to contain spreading. The pandemic had an impact on almost every sector one way or another. The way people work has changed, their awareness of hygiene has increased. By virtue of the fact that the virus is not known exactly, each country has made its own decisions in its own way. Some enforced isolation, some partial isolation. Others preferred the herd immunity method.

The World Health Organization (WHO) first underestimated the incident, considered the virus epidemic, and then declared a pandemic on March 11 when it noticed that the virus spread rapidly to 6 continents and more than 100 countries. WHO had concluded this decision late, primarily in order not to cause anxiety. The virus continued to spread rapidly throughout the world (Que, 2020). The fact that the virus spreads quickly brought the question of "is it a modified virus?" to the agenda. At this stage, almost all countries had to return to the practice of isolation. They even decided to act together in order to struggle with COVID-19. In addition, countries have started to introduce economic packages to overcome the crisis. Some of the projects excluding the urgent ones have been stopped or postponed.

Travel bans were imposed. International flights and even intercity trips were banned. Short-term curfews were announced. People started to work from their homes. As a matter of fact, they even started to conduct social meetings through applications that allow video calls. From young to elderly, people have learned to shop online and meet via the internet. Schools and universities have set up infrastructures for online classes and started to have online classes. In this way, they try to complete their education. Some universities even transferred their promotions to digital media.

All these developments have deeply influenced social and economic life. In order to prevent the spread of the COVID-19 virus, most people had to stay in isolation, thus digital media became more and more used. Attacks on applications used on computers, tablets and mobile phones have increased, and fake mobile applications have emerged under the mask of the coronavirus theme. (Intel Probe, 2020). In the internet environment, information full of mistakes began to spread rapidly and the concept of infodemic, which expresses the rapid circulation of dirty information, came into our lives.

In the pandemic period, especially the production, transportation and aviation became the sectors that were negatively affected. There were some developments in the healthcare and pharmaceutical industry. Specialists have made great efforts in order to develop the vaccine. There were also some positive changes regarding the environment (Resilience of the Space Sector to the COVID-19 Crisis , 2020).

Along with the pandemic, the way companies work has begun to change. We now have online meetings. Digital programs entered our lives more in this period. Online barbers who describe hair cutting and direct the customer for a certain fee have appeared (You Probably Need a Haircut, 2020). Virtual babysitters started to serve (SitterStream, 2020). Video calling programs started to be benefitted for marketing and sales. For instance, farmers started to sell their products through these platforms.

Space and astronomy studies have inevitably been affected in this isolation period. Although some projects are delayed and some companies have gone bankrupt, it is observed that the works are still ongoing. However, services received from orbiting satellites did not decrease but rather increased. This once again demonstrated the importance of space technologies during the pandemic.

A Brief History of Space-Age

Human beings have been watching outer space and celestial bodies for thousands of years. In 1609, Galileo used a telescope for the first time for space observations. Since that day, thoughts for space changed as telescopes developed. Since the inception of the space age, human beings began to place and use space telescopes in earth orbit. The Hubble space telescope is the most known. As science and technology progressed, models for the world and the universe evolved and changed over time.

The year 1957 was appointed the International Geophysical Year. It started on 1 July 1957 and ended on 31 December 1958. There was almost no scientific sharing between East and West during the cold war period. Countries that could not meet agreed to carry out scientific work together in this 18 months. This project has put an end to this period. The Russians reported that they

would put a satellite into orbit in 1955. Two years later, on 4 October 1957, they placed the Sputnik-1 satellite into orbit. This incident made a tremendous impact on American media. The fact that the party who gave a start to this race was Russians after the World War II caused panic among Americans. The space-age has begun.

Following this date, developed countries, particularly within the scope of the projects of the two countries, placed hundreds of satellites into orbits of the earth and other celestial bodies. Space was deemed as a military supremacy as well as a prestige race. Many accidents and failures have occurred. However, no country has given up on its goal.

Mankind first went into space in 1961 when Russian cosmonaut Yuri Gagarin entered orbit. A person stepped on the moon for the first time in 1969. Although the space race seemed to be over, the race actually slowed down a little, but the sector continued its growth trend.

The utilization of satellites in the war took place in 1967 during the Vietnam War. On one hand, satellites were launched for civilian applications and scientific studies, on the other hand, military satellites were launched. Navigation satellites were introduced as a military project, and over time these services came into the civilian service.

As of today, we can handle the satellite industry basically in four parts: the production of satellite and satellite components, the production of ground segment equipments, the production of launchers and satellite services. Pursuant to the predictions for the end of 2021, the space sector refers to a sector of 370 billion dollars. It achieves growth every year. This sector is expected to exceed 600 billion dollars in the 2030s and 1 trillion dollars in the 2040s (Viens, 2019).

Space economics refers to the utilization of all the activities or resources that produce value and benefit to people during exploring, research, understanding, management and use of space. It has entered into our social life in many fields such as space technologies, agricultural planning, disaster management, medicine, cultivation, transportation and urban planning. It has been the driving force of economic development and innovation in many sectors from agricultural food products to healthcare, from the environment to communication in developed countries.

Space projects are much more difficult than the designs of the systems that will be operated on earth. Human beings have found the answers to many engineering problems while manufacturing equipment that will work in space conditions. So the outcomes of the project are not just limited to space. More often than not, technologies used in daily and professional life are also developed. There are many technologies NASA has developed in this regard. NASA publishes the Spin-off list every year. There are many products presented

for the benefit of humanity in many fields from healthcare to consumer goods, from transportation to information technologies (NASA, 2020a).

Distinguishing features of this sector are that states are involved and projects and investments take too long. Sometimes projects can be long enough to cover the entire engineering life of a person, and sometimes even exceed his/her life. For example, the Voyager-1 and Voyager-2 projects of NASA were commenced in the 70s and are still ongoing projects. Therefore, most of the time, projects have been developed by the states. However, space shows itself to be the field of activity of civil companies in the late 1990s. SpaceX, Blue Origin and Virgin Galactic companies can be mentioned as the best examples for this.

Space projects can also be too big-budget and risky to undertake for civil initiatives. Therefore, such projects are carried out thanks to the collaborative approaches of the states. While doing these, the priorities of the state were determined and budget was transferred to such projects. The International Space Station (ISS) is one of the best projects that countries collaborate with. Even in periods of escalated tension between countries, the project was not affected.

Social Impacts of Space Technologies

Perhaps the most profound impact of space technologies on societies is to create an informed and socially interacted society, and as a result, to form a global village (Joseph A. Angelo, 2003). Satellite TV broadcasts were first used in the Tokyo Olympics in 1964. This publication was performed by INTELSAT. In so far as the system is expensive, satellite TV broadcasts hardly became widespread in the 1980s. It has become widespread in Turkey in the late 1990s.

Taking into account that the language of scientific articles produced in the world is, to a large extent, in English, this situation is thought to destroy cultures and eliminate differences. There are 17 sustainable development goals contemplated for the world before the UN. In this context, in case of disaster, they have very important goals such as acting in a collaborative manner and following up on the global climate in order to minimize losses (United Nations Department of Economic and Social Affairs, 2020).

Satellites serve in many areas. Among them, these can be mentioned: communication, disaster follow-up, mapping, agriculture, weather, security, and intelligence. It is of vital importance for humanity to predict and take precautions before disaster comes. In 2011, there was a tsunami in the Sendai earthquake and Japan used satellites to detect and prevent disasters.

Impact of COVID-19 on the Space Industry

Global Satellite Services Industry

When we assumed that the entire satellite industry is about $ 370 billion, the sale of satellite observation data consists of $ 3 billion of this amount. The growth in this sector is expected to be around 7% this year. Besides its use in defense and intelligence, such satellites provide very useful information in terms of agriculture and preventing and delivering services against natural disasters.

Recently, interest in small satellites has increased and small companies that have become advantageous in this sector have emerged. Moreover, the information obtained with the Copernicus and Landsat programs is now processed using artificial intelligence (AI). Thanks to this, capturing and interpreting the changes became easier. For example, images from satellites immediately show the fact that the car manufacturing plants are not working full. The course of ship transport and the density of the ports can also be determined immediately thanks to the observation satellites.

Food security is one of the most important issues in corona days. The way to follow this strictly is through the data received from observation satellites. In the images obtained from the planting areas, yield estimation can be made. This information has become very significant for the policies to be developed on food.

Pursuing the aviation industry has also become very easy thanks to satellites. Through the radar satellites, the number of aircraft in the air is determined. After the COVID-19 pandemic, there has been a great decrease in flights. Both business and holiday travel stopped and some airline companies have gone bankrupt.

Observation satellites have offered very substantial advantages in monitoring the borders of countries and in developing border policies. Furthermore, satellites are used in order to reveal the industrial and environmental impacts of the COVID-19 pandemic.

Satellite operators that offer TV and radio services such as Turksat and Intelsat have a 60% share in the satellite industry. While the ground sector is about 28%, launchers refer to 3%, and satellite manufacturing refers to about 9%. Operators switched to remote operation during the COVID-19 period. Much as launching new satellites became a problem, existing satellites in orbit continue to serve. However, due to the problems in the supply chain, there are problems in the installation and completion of the newly launched satellite ground stations. In addition, TV content producers experienced a decrease in advertisement revenues because they could not produce content such as movies and series. Due to the fact that the local and regional TV channels take a small share from advertisement, they encountered greater financial

difficulties during this period. Business plans of satellite operators serving worldwide have also changed and their revenues decreased (Satellite Today).

Environmental Impacts

As industrial activities mostly stopped, the COVID-19 pandemic has positive impacts on the environment. With the help of the sensors on the satellites, polluting substances such as ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide and methane can be detected. Copernicus Sentinel-5P satellite currently mapped air pollution over Europe and China and detected a significant decrease in Nitrogen Dioxide intensity (G-Nous).

Beijing, the capital of China, is one of the metropolises that have the most polluted air in the world. Based on the information obtained from observation satellites, the air was cleared in February and March of this year. But, when the isolation was relieved, the factories started to work again and the air started to resume its former condition.

A Canadian firm plans to launch a satellite fleet to perform studies on such air pollution (Space News, 2019b). Last year Europe called for cooperation with America, Japan and other countries on satellites which will be developed to monitor greenhouse gases (Space News, 2019a).

Bartolomeo, Europe's first commercial external platform to be built on ISS, went to ISS on March 7th with a SpaceX rocket. This platform is designed for commercial use of ISS. Companies and research institutions will use this platform in order to carry out their experiments in space conditions.

Impacts of COVID-19 on Satellite Projects

On the one hand, some space agencies announced a delay in their projects, on the other hand, others never mentioned. Institutions have developed projects to keep people at home. The "NASA at Home" project came to existence as a result of such an intention. It organizes events to introduce space to people of all ages, to enable them to experience enjoyable activities, and to make them watch. The rules of isolation should be followed so that the spread of the virus can be controlled.

Of the 560 astronauts who went to outer space, only eight went as tourists. The first tourist who went to outer space is American businessman Dennis Tito. In 2001 he went to the International Space Station with the Russian spacecraft. In 2020, space tourists would go to space with a 90-minute flight for 250 thousand dollars. However, COVID-19 brought these projects to a standstill.

During the COVID-19 pandemic, NASA has identified a four-stage framework for work and has switched to remote work as far as possible in all its facilities. It continues its projects with minimum personnel. It announced that it will close the Stennis Space Center in Mississippi and the Michoud Assembly Facility in New Orleans. This means the delay of the SLS launch and the Orion capsule

to be used for Artemis projects. Moreover, summer internships will be re-evaluated. (NASA Artemis Mission Coronavirus, 2020).

NASA has assumed other tasks in this struggle. Engineers working in the Jet Propulsion Laboratory (JPL) lab have designed a fan for COVID-19 patients. NASA also opened calls and motivated its engineers to implement the obtained ideas. Another center of NASA has initiated a study in order to eliminate the lack of critical medical equipment. They have also triggered off studies to develop joint projects with some companies (NASA Press-Release). It is said that some of the NASA and UAE Space Agency projects still prosper. However, we do not have satisfactory information about the projects of the Chinese Space Agency (CNSA).

The European Space Agency (ESA) announced on March 31th that it allocated a budget of 10 million Euros for distance education and health. More than 120 project proposals came in three weeks. When the proposals and ideas were considered to be of good quality, the budget was doubled (ESA Website). ESA's project called Mars rover, Rosalind Franklin, was having trouble with the parachute system. The pandemic further extended the delay and is now planned to be launched in 2022 (Space Astronomy). The second ExoMars mission developed by ESA with Roscosmos was also postponed to 2022. Both sides decided to re-perform hardware and software tests on this spacecraft. They do not want any margin of error in a module that will go to Mars. The mission of BEPiColombo, which is a co-production of ESA and JAXA, achieved its close transition to the world as of April 10th. It is now heading towards the planet Mercury. Some of the ESA employees work remotely, while others pay attention to social distance.

As it is known, Turkey Space Agency was established by Presidential decree No. 23 on December 13th, 2018. When we examine the calls opened during the COVID-19 period, there was an opportunity to give the response to countries seeking cooperation. We have the infrastructure and human resources to utilize these opportunities (Turkish Policy). When we look at the satellite project developed in Turkey, two projects are noteworthy. Turksat 6A communication and IMECE observation satellite projects developed at TUBITAK Space Technologies Research Institute. Satellite tests at the TUSAS AIT (Assembly, Integration and Test) center are ongoing. However, due to the COVID-19 pandemic, flexible work was applied and some people stopped working on projects because of health reasons. Turksat 5A and 5B communication satellite projects developed by Airbus are ongoing in England and France. Even though they have been affected by this process, satellites will be ready to launch in 2021.

The Impact of COVID-19 on the Astronomy World

The pandemic also affected astronomical activities worldwide. Besides many conferences and activities in all subjects have been affected, conferences held by the astronomy community were postponed to a later date or canceled. Some

conferences and seminars started to be held in the form of webinars in a virtual environment (Space Agenda). The activities may start after the travel bans are lifted, but this situation is expected to extend to this summer.

The International Astronomy Congress (IAC), which was commenced in 1950 and is recognized as one of the most important conferences on space, would be held in Dubai. Due to the COVID-19 pandemic, it will be held online in October this year. The congress to be held next year will be held in Dubai between 25-29 October 2021. Other delays and suspensions due to the outbreak can be listed as follows:

- *Studies at the Mauna Kea Observatory in Hawaii were suspended pursuant to the governor's decision to stay home.*
- *LIGO (Laser Interferometer Gravitational wave Observatory) laboratory in the USA also suspended its third observation study.*
- *The astronomy observation facility on the Canary Islands was closed following the decision taken by Spain.*
- *The SOFIA project, which NASA developed together with the German Space Agency DLR, was also suspended. Its budget was canceled for 2021.*

The Annular eclipse, which will take place on June 21th, will be observed from Africa and South Asia. Since the flights are banned, some scientists will be able to go to the observation with special permits. For the amateur astronomy community, this permit will be a little more difficult. TÜBİTAK National Observatory (TUG) is an observatory located in the Taurus Mountains, Saklıkent, west of Antalya. The telescopes built in partnership with Russia and Turkey continue its activities. For the maintenance and service of these telescopes, technical personnel work 24/7. Scientists work remotely due to travel bans. For instance, scientists who could not come from Russia connect remotely from Moscow and Kazan cities and make their observations. Within the scope of the Eastern Anatolian Observatory (DAG) project carried out by the Astrophysics Research and Application Center (ATASAM) within the Erzurum Ataturk University, Turkey's first and largest infrared telescope (in the region of up to 3 microns) is established. DAG observatory is established at an altitude of 3170 m and the infrastructure is completed except asphalt road. 90% of the telescope building and 70% of the dome are completed and all factory tests of the telescope have been finalized in Italy. Grinding and polishing process of 4 m primary mirror has been completed and is now in Russia for coatings, will be brought to Turkey in 2021. Due to the COVID-19 pandemic, the arrival of the dome and telescope components from Italy and Belgium and the arrival of the foreign team are delayed. In total, there is a 4-month delay in the project.

COVID-19 and Launch Industry

While launching for satellite projects took place almost every week, the frequency of launch has also decreased due to the pandemic. Argentina's

SAOCOM 1B radar observation satellite was to be launched in late March, but its launch from Florida was delayed due to travel restrictions. The GPS satellite to be operated by the United States Space Forces would be launched on April 29th, but it was announced that there would be a 2-month delay.

The US and UK joint venture OneWeb satellite firm was already experiencing financial difficulties before the pandemic. It launched 34 satellites on March 21th and filed for bankruptcy in early April. It currently has 74 satellites in orbit. It had an intention to provide internet services in Ku-band frequency with 648 satellites in total. All initiatives like the Iridium project have resulted in bankruptcy in the past.

SpaceX has put 362 Starlink satellites in orbit so far. The coronavirus test was positive in 6 of its employees. Nevertheless, since the projects are critical, the work was not interrupted. 60 of these satellites were launched in April. SpaceX aims to serve the world by placing more than 1500 satellites in total in LEO orbit. Moreover, the design and testing of reusable rockets are ongoing. Manned space flights will begin in the next few years.

Due to the pandemic, NASA's project called Artemis to go the Moon and Mars, and the space telescope project James Webb (JWST) will probably be delayed. Excluding the urgent ones, works have been suspended. The mirror alignment test of the James Webb telescope was successfully completed in early March. Currently, the last checks are being performed. This project is conducted together with NASA, ESA and the Canadian Space Agency. In 2021, it will be launched into space via the Ariane-5 rocket from French Guyana. On April 15th, Russia conducted the trial of the DA-ASAT (Direct-Ascent Antisatellite Weapon) gun in space. However, it hit no major low earth orbit satellite (https://g-nous.com/article/9/how-is-the-space-sector-doing-during-COVID-19).

International Space Station (ISS) and Experiments

The International Space Station is a giant space laboratory, in which 15 countries execute collaborative works and operate at an altitude of 350 km in low earth orbit (LEO). It has been operating since 1998. It is an extraordinary example of cooperation between Russia and the west. 6 astronauts work at the station at any time. Various scientific experiments are carried out and studies are ongoing without being affected by the pandemic.

Two cosmonauts and one astronaut from the new crew were enforced the two-week quarantine and went to the ISS on April 9th from the Baikonur space base with the Soyuz launch vehicle. After 6 hours, they reached ISS on April 10th. So, the COVID-19 pandemic changed the launch protocol. Quarantine is applied to astronauts who go to ISS and come from there. Now the quarantine process has begun to be enforced earlier to those who go. Also, astronauts could not see their families lastly. After this launch, Yevgeny Mikrin, the Russian director responsible for manned flights, was diagnosed with corona. Mikrin died on

May 5th. On April 17th, the crew of 3, who served at ISS for a long time, returned to a world of corona with the Soyuz spacecraft. SpaceX firm took two American astronauts to ISS with the Falcon 9 rocket and Dragon Crew spacecraft on May 30th. It had successfully passed ground tests. Studies were not suspended during the pandemic period. After 2011, America had retired space shuttles since they are expensive and dangerous. Russians' Soyuz vehicle had been used to go to and return from the space station for 9 years. These two were the achievement of SpaceX firm that the first time a civilian company went to ISS and the station was reached again from the American soil. This situation is expected to open the way for space tourism. The International Space Station is planned to serve for another 7 to 10 years. The preparations for a second space station began to prevent the scientific experiments from being stopped when its expiry date came. Turkey's involvement in this new project will bring huge benefits in terms of our scientific community.

Conclusion

Space technologies play an important role in modern life and have greatly influenced the course of civilization. Data obtained from observation satellites are processed using Artificial Intelligence (A.I.) and world trade is monitored consistently. Satellites are essential in preventing and responding to disasters. States that had worked together in space projects in the past continue these associations in some civil projects today.

It can be suggested that COVID-19 developed the remote work culture because of the constraints it brought. Satellite operators providing satellite services seem to resolve the crisis by working remotely. There was no interruption in communication, satellite observation and navigation services. These services are already needed to monitor a global crisis.

Consumer behavior also changed in the pandemic. Meetings, family reunions, ways of working have mostly switched to the internet. Online orders have increased. The variety of applications has increased. However, applications that abuse this have also emerged. During the pandemic, user experience has started to be utilized more for software used for video conferencing. In the light of these experiences, the software updated itself based on the needs. Security issues were handled. In addition, people started to use the internet more frequently during this period, and in so far as the traffic increased, problems emerged. Countries have also tested their internet infrastructure.

When mankind was isolated from life, the air quickly refreshed itself such that some invisible distances began to be visible clearly. It was seen that the dolphins reached up to the Bosporus. Carbon dioxide emission decreased. As if the world started to recover itself. COVID-19 pandemic provided an opportunity for those who make environmental policies. With the new data obtained, it will be possible to work on climate change in a rational way

and policies will be developed accordingly. The Paris Climate Agreement signed in Paris under the United Nations Framework Convention on Climate Change entered into force at the end of 2015. It includes provisions on reducing greenhouse gas emissions, adaptation and finance. The COVID-19 pandemic presented a new calculation opportunity regarding the policies mentioned in this agreement (Paris Climate Agreement, 2015).The impact of the pandemic can be analyzed more clearly by combining information obtained from satellites and information from other sources, and countries and institutions can act together in order to resolve problems quicker and more effectively. COVID-19 once again tells us that the world is the only habitable place and that we must protect it and act together.

References

Angelo, J. A. (2003). *Space technology*. Greenwood Publishing Group.

Dickinson, D. (2020). Space and Astronomy in the Time of COVID-19. Sky & Telescope. Retrieved from: https://skyandtelescope.org/astronomy-blogs/astronomy-space-david-dickinson/space-astronomy-covid19 (01.06.2020)

ESA. (2020). Funds increase for space in response to COVID-19. Retrieved from: https://www.esa.int/Applications/Telecommunications_Integrated_Applications/Funds_increase_for_space_in_response_to_COVID-19 (01.06.2020)

G-nous. (2020). How is the space sector doing COVID-19. Retrieved from: https://g-nous.com/article/9/how-is-the-space-sector-doing-during-covid-19 (15.05.2020)

Holmes, M. (2020). Satellite Operators Adjust as COVID-19 Sweeps Normal Life Away. Via Satallite. Retrieved from: http://interactive.satellitetoday.com/via/june-2020/satellite-operators-adjust-as-covid-19-sweeps-normal-life-away/ (01.06.2020)

Intel Probe. (2020). Corona/COVID-19 Mobil Tehdit Raporu. Retrieved from: http://intelprobe.com.tr/uploads/1586531760-IP-DigitalCovid19-Mobile-IntReport.pdf (20.05.2020)

Leman, J. (2020). NASA's Artemis Mission Hits Another Snag: The Coronavirus. Popular Mechanics. Retrieved from: https://www.popularmechanics.com/space/rockets/a31797824/nasa-artemis-mission-coronavirus/ (01.06.2020)

NASA. (2020a). Spinoff. Retrieved from: https://spinoff.nasa.gov/Spinoff2020/pdf/Spinoff2020.pdf (01.06.2020)

NASA. (2020b). NASA Contributes Expertise, Ingenuity to COVID-19 Fight. Retrieved from: https://www.nasa.gov/press-release/nasa-contributes-expertise-ingenuity-to-covid-19-fight/ (01.06.2020)

Que, C. (2020) Answers to Your Coronaviruus Questions. The New York Times Report. Retrieved from: https://static01.nyt.com/files/2020/ebooks/corona-virus-questions/nyt-coronavirus-answers.pdf (20.05.2020)

Scatteia, L., & Perrot, Y. (2020). Resilience of the Space Sector to the COVID-19 Crisis. Retrieved from: https://www.pwc.fr/fr/assets/files/pdf/2020/05/fr-france-en-resilience-of-the-space-sector-to-the-covid-19-crisis.pdf (20.05.2020)

Space Agenda. (2020). Retrieved from: http://www.spaceagenda.com/ (01.06.2020)

Viens, A. (2019). Visualized: The Race to Invest in the Space Economy. Visual Capitalist. Retrieved from: https://www.visualcapitalist.com/visualized-the-race-to-invest-in-the-space-economy/ (15.05.2020)

You Probably Need a Haircut. (2020). Retrieved from: https://www.youprobablyneedahaircut.com/ (01.06.2020)

SitterStream. (2020) Retrieved from: https://www.thesitterstream.com/ (01.06.2020)

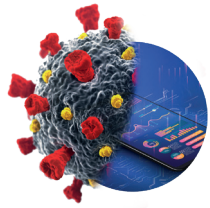
Turkish Policy. (2019). The Global Space Economy: A Short Overview of the New Space Race. Retrieved from: http://turkishpolicy.com/blog/42/the-global-space-economy-a-short-overview-of-the-new-space-race (01.06.2020)

United Nations Climate Changes. (2015). Paris Climate Agreement. Retrieved from: https://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf (01.06.2020)

United Nations Department of Economic and Social Affairs. (2020). #Envision2030: 17 goals to transform the world for persons with disabilities. United Nations. Retrieved from: https://www.un.org/development/desa/disabilities/envision2030.html (01.06.2020)

Werner, D. (2019a). GHGSat, International focus on greenhouse gas monitoring satellites, sensors. *Space News*. Retrieved from: https://spacenews.com/greenhouse-gas-satellites-ams/ (01.05.2020)

Werner, D. (2019b). GHGSat, Canadian Foundation plan emissions monitoring campaign. *Space News*. Retrieved from: https://spacenews.com/ghgsat-sustainable-technology-development-canada/ (01.05.2020)



Pandemics, Outcomes of Polar Research and the Future

Burcu Özsoy

Assoc. Prof. Burcu Özsoy

Assoc. Prof. Burcu Özsoy received BA and MA degrees at the Department of Geodesy and Photogrammetry Engineering at Yıldız Technical University. In 2001, she started to teach at the Maritime Faculty in Istanbul Technical University (ITU). She started her doctoral study in 2005 at the University of Texas in San Antonio. Within the framework of her doctoral study, she participated her first Antarctic Science Expedition in 2006 with American and Swedish scientists, during which she collected terrestrial data on sea ice observations. She then worked on the verification of satellite images also on sea ice interaction with climate change in Antarctica. Horizon 2020 project, joint venture with European countries, covering Arctic and Antarctic regions, was accepted in 2015, and Dr. Burcu Özsoy served as the consortium member of the project. She is the founding director of Polar Research Center (PolReC) established at ITU in January 2015. Dr. Burcu Özsoy served as the coordinator and expedition leader of the National Turkish Antarctic Expeditions - I, - II, - III which are conducted under the auspices of the Presidency. She coordinated Turkish Antarctic Expedition - IV. Currently, she is the director of TÜBITAK MAM Polar Research Institute.

Pandemics, Outcomes of Polar Research and the Future[1]

Burcu Özsoy
TÜBİTAK Marmara Research Center Polar Research Institute
burcu.ozsoy@tubitak.gov.tr

Abstract
There have been many pandemic diseases in human history. Even in the 20th and 21st centuries, hundreds of thousands of people lost their lives due to diseases such as AIDS, cholera, influenza, SARS. One of the biggest effects on the rapid spread of diseases is the density of the population. World population density decreases in polar regions. With an area of 27 million square kilometers, 4 million people live in the Arctic region, and there is no resident population in Antarctica. However, in the established scientific stations, there are 4000 scientists in the summer and a thousand in the winter. Antarctica is visited by approximately 50.000 tourists every year.

The COVID-19 epidemic has spread to almost the whole world, and only 13 countries have not published any reports on the disease. Antarctica is the only continent that the disease is not known for. In addition to not having a settled population and not having a scheduled transportation route, strict measures applied to departures and returns to Antarctica prevented the disease from reaching here. Due to the global climate change that affects the entire world, especially the polar regions, agricultural areas and cities are changing, more diseases are experienced, and even diseases that do not exist before. It is anticipated that migration of climate change will occur due to all these. It is estimated that 200 million people will migrate by 2050, and the types of pandemics will increase and differ in this way. On the other hand, Polar regions bring new problems and solutions, as they are candidates for being the new future of humanity.

Keywords
Arctic, Antarctica, Climate change, Pandemic disease

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

The area to the north of the Arctic Circle (about 66°33 'North latitude) is called the Arctic region and covers part of North America, Asia and Europe continents. Some regions of the USA, Canada, Denmark, Iceland, Norway, Finland, Sweden and Russia are located in the Arctic. Covering 14 million square kilometers of the surface area, the Arctic Ocean is the world's shallowest ocean and contains 1/3 of the world's hydrocarbon reserves. Within the framework of the United Nations Convention on the Law of the Sea (UNCLOS), Coastal States have the right to use resources in the area up to 200 nautical miles from the shores of the ocean and also under certain conditions in the continental shelfs. However, the conflicts, that have not been finalized yet in the Arctic about the determination of the continental shelves, continue (Kullerud et al., 2013). In 1996, the Arctic Council was established to ensure cooperation, sustainable development and the protection of the environment and culture among the Arctic states (USA, Denmark, Finland, Sweden, Iceland, Canada, Norway, Russia) (Arctic Council, 2007). In the Arctic region, where approximately 4 million people live, the population increases by 4% every 10 years (Heleniak et al., 2015).

The Antarctic region covers the Antarctic Continent and the surrounding Southern Ocean south of the Antarctic Front (approximately 58° South latitude) and some sub-Antarctic islands (Anisimov et al., 2001). Antarctica is the last discovered, coldest, driest, highest continent in the world, also has the lowest population density. More than 70% of the freshwater resources in the world are frozen on the continent of Antarctica (bbc.co.uk, 21.05.2020). It is known that the continent and the surrounding Southern Ocean, which is protected by the Antarctic Treaty and additional protocols and agreements, have hydrocarbon and other underground resources (Behrendt, J C., 1983). In addition, the second largest marine protection area in the world is located in the Southern Ocean (Jabour & Smith, 2018). Decisions on the continent,

which is not under the sovereignty of any country, are taken unanimously at the Antarctic Treaty Consultative Meetings held annually in alphabetical order, hosted by a consultative member country.

The Arctic and Antarctic regions have very opposite characteristics. Among these differences, it is possible to count its geographical location, topography, general climate conditions and ecosystem. Antarctica is a high continent with ice and snow covering the mountain ranges in the Southern hemisphere. The highest mountain is Vinson Massif and it is 4,897 meters. On the contrary, Arctic is a deep ocean in the Northern hemisphere. The deepest point is Litke at 5,450 meters in the Eurasian Basin. It is cold in both regions, but Antarctica reaches cooler temperatures. While all mammals in Antarctica are marine mammals, the North Pole hosts about 48 terrestrial mammal species. In addition to Arctic and Antarctic regions' characteristics, sea ice formation has the common characteristics. In Antarctica, the ocean surrounding the continent is covered with sea ice up to 18 million square kilometers in winter, but only 3 million square kilometers of sea ice remain until the end of summer. While the Arctic Ocean is covered with 15 million square kilometers of sea ice in winter, an average of 4 million square kilometers remains at the end of the summer season. Antarctic sea ice is typically 1 to 2 meters thick, most of the Arctic is covered with 2 to 3 meters thick sea ice (nsidc.org, 21.05.2020). Since the Arctic Ocean is mostly covered with sea ice and surrounded by land, precipitation is relatively rare. However, since Antarctica is surrounded by the ocean, humidity is higher. Antarctic sea ice tends to be covered mostly with thick snow.

Leaving aside the differences, the sea ice, which has a large area in both regions, is primarily affected by climate change. Oceans heat up 0.5°C every year. This warming not only affects the marine ecosystem, but also affects the global climate. The most effective input of the Great Ocean Conveyor Belt, which is the biggest factor of the climate system, is the salinity difference due to the sea ice formation and melting glaciers bring fresh water to the sea in the polar oceans (Seidov, Barron & Haupt, 2001). Sea ice also regulates the ocean-atmosphere relationship (Yang & Neelin, 1993) (Ma, Wang & Cao, 2020). Sea ice decreases in parallel with the increasing greenhouse gas density at the global level. This decrease operating a positive feedback mechanism, causes more absorption of solar energy, increases the heat budget, and the increased heat budget causes more melting (Curry, Schramm & Ebert, 1995). The melting of sea ice facilitates access to Polar Regions and natural resources there and reduces costs. The routes leading to sea transportation in the Arctic Ocean are called the new Silk Road. These results increase economic and geopolitical interest to the Polar Regions.

Sea ice is not the only area affected by global climate change. East Antarctic ice sheet, which is estimated to have formed 37.5 million years ago, and West Antarctic ice sheet, which are estimated to have formed 10-5 million years ago, are also melting due to global climate change (Huybrechts, 1993;

Jacobs, Hellmer & Jenkins, 1996). It is estimated that the complete melting of Greenland and Antarctic ice sheets will increase the global sea water level by 70 meters (Alley et al., 2005). Melting of ice sheets will also cause the release of reserve methane gas that have been hidden for millions of years which is more effective than carbon dioxide as greenhouse gas (Wadham et al., 2012; Portnov et al., 2016). It is also possible that bacteria and viruses that have been hidden in these areas for millions of years will also be released. The studies carried out in subglacial lakes are also proof of this (Christner, Skidmore & Priscu, 2008).

Epidemics and Polar Regions

Many epidemics have been experienced in human history before. The most well-known outbreaks in the 20th and 21st centuries can be mentioned as influenza, cholera, AIDS and SARS (Morens, Folkers & Fauci, 2009). The COVID-19 outbreak in 2019 and 2020 has spread to all continents except Antarctica and has directly affected more than 5 million people (dated May 2020). Measures taken, economic and social difficulties have affected billions of people. In the Arctic, the number of COVID-19 cases exceeded 3 thousand. Even in the MOSAiC (Multidisciplinary drifting Observatory for the Study of Arctic Climate) expedition, in which the ice-breaking ship was used as an interdisciplinary natural laboratory, which was planned to carry out scientific studies in the region by staying stuck in the sea ice for about 2 years in the Arctic Ocean with international collaborations, COVID-19 cases were observed.

While no cases were seen in one polar region (Antarctica), COVID-19 was found in one out of every thousand people in the other polar region. Looking at the coastal states to the Arctic, the total number of cases has approached 2 million (0.036 cases / population), while there are 80 thousand cases around the Southern Ocean coastal states (0.00053 cases / population). COVID-19 is more common in the northern hemisphere because of population density, human mobility, and atmospheric transport. In addition, more isolated countries in the southern hemisphere have been more successful in implementing quarantine conditions. Nevertheless, the condition might change by the time for the Southern hemisphere since pandemic remains unknown in every aspect.

When human history is analyzed, it is seen that epidemic diseases spread in different ways. It is observed that trade routes and wars increase the spread in epidemics transmitted from person to person. Today, more than 90% of global commercial transportation is made by seaway which is one of the most important tools of trade in history. This also led to epidemic diseases. During the First World War, the Spanish Flu, which started to spread in Europe in 1918, moved to Australia in 1919 with a ship expedition, which caused loss of 10,000 lives.

Ships are evaluated under quarantine conditions during routine operations. In Turkey, the Ministry of Health General Directorate of Border and Coastal Health (HSSGM) scope of operations carried out by ships of the Maritime Declaration of Health must do before arriving at Turkish ports.

> *"Within the scope of the International Health Regulations (2005) published by the World Health Organization, the "Maritime Declaration of Health" which shows the state of health on the ship has to be filled by ship's captain or if there is a ship physician, it is arranged together with the signature of the two before the arrival of the ship (online application, e-mail or fax via the relevant Coast Health Inspection Center). If there is not enough equipment to send the notification on board, it is delivered to the relevant Coast Health Inspection Center official on arrival of the ship. The Marine Declaration of Health must comply with the example set out in Annex 8 of the International Health Regulation (2005)." (www.hssgm.gov.tr 20.05.2020).*

In addition, before the ships enter the ports, they request "free practice" from the relevant health authorities. The ship is counted in quarantine until "Free Practice" is taken and tells the situation by flying a yellow flag. There is a similar practice in civil aviation, but passengers embark / disembarks even aircraft that cannot obtain "free practice" (International Civil Aviation Organization, 2013).

Due to the fact that different countries are located in the Arctic region and there is a resident population, there are regular flights and ships operating to the region. On the contrary, transportation to Antarctica cannot be provided on a scheduled basis. This prevents, individuals from accessing the continent through their personal initiatives, in other words, the spread of epidemic diseases to the continent.

Another effect of epidemics is experienced in community psychology in quarantine / isolation, disease / treatment processes. It is known that in isolated individuals, their tendency to depression, resort to violence and suicide rates increase. These are the same effects seen in communities living in polar regions (Kirmayer et al., 1999). It is known that people working in scientific stations in Antarctica also lead an isolated life (Zimmer et al., 2013). This social isolation is accepted as a guide for space researches (Suedfeld & Weiss, 2000).

Turkey and Polar Regions

It is known that Turkish scientists have been conducting research since 1967 on the continent of Antarctica. It is not known when Turkish scientific studies started in the Arctic. However, it can be said that the interest of the Turkish scientists in the Polar Regions began much earlier. On the World Map of Piri Reis dated 1513, the Land of Fire (Tierra del Fuego), which is the closest area to Antarctica and located in the southernmost part of the South American

continent, is shown. It is known that Piri Reis's World Map dated 1528 shows Greenland, which is located in the north of the Atlantic Ocean, and the northeastern coasts of Canada.

In 2013, Turkish sailors Osman Atasoy and Sibel Karasu went to Antarctica during their world trips with their sailing boats called Uzaklar II, and in 2014, Turkish sailor Erkan Gürsoy crossed the Arctic Northwest Passage with his own built boat named Altan Girl. While polar researches carried out individual initiatives, the first institutional steps were taken with the establishment of the Istanbul Technical University Polar Research Center (ITU PolReC) in 2015. By the Antarctic Scientific Research Base Project taken under the auspices of the Presidency in 2017, importance of polar research to the Republic of Turkey are set out in the national and international levels. The First Turkish Antarctic Expedition (TAE-I) was held in March-April 2017 under the coordination of the Ministry of Industry and Technology and ITU PolReC. 9 researchers from 4 universities took part in TAE-I for about 30 days and started the feasibility studies related to the establishment of the Turkish science base. TAE-I has reached 15 thousand kilometers away from Turkey and made the furthest expedition in Turkish history.

The same year, the National Polar Science Program 2018-2022 (UKBP) was published with the participation of 120 researchers from 36 institutions. Prepared in parallel with the Scientific Committee on Antarctic Research (SCAR), UKBP has been gathered under 4 main titles as disciplines, physical sciences, earth sciences, life sciences, social sciences and humanities.

Within the scope of the Second Turkish Antarctic Expedition (TAE-II) in 2018, a camp was established on a land for the first time in Antarctica. The team of 10 of 28 total stayed in the camp set up on Robert Island and carried out their work. It has gained importance as the first time that Turkish scientists made the transition to studies in a system based on land. The team, which carried out research for 40 days, completed the ground feasibility for the science base within these time and 15 scientific projects were done. TAE-II was completed in April 2018.

The Third Turkish Antarctic Expedition was held between February and March 2019 with the participation of 25 researchers. The expedition, which is important for the first time due to the hosting of foreign researchers in a Turkish polar expedition, has also gained importance due to the deployment of a 3-module camp site on Horseshoe Island, where is planned to establish a science base. 15 scientific projects were carried out successfully in 30 days. Within the scope of the expedition, an automatic meteorological observation station was established on Horseshoe Island in cooperation with the General Directorate of Meteorology of the Ministry of Agriculture and Forestry. With the hydrographic study conducted in cooperation with the Naval Forces Command, Department of Navigation, Hydrography and Oceanography, the sea floor mapping has been started in Lystad Bay in Horseshoe Island.

In July 2019, the first scientific expedition to the Arctic with 8 participants from five institutions is held and sponsored by Turkiye Is Bank. The team carried out the measurements and sampling of 15 projects with a small group in order to minimize the human footprint and continued to work in the region for almost a month. During the studies, the glider of the French National Scientific Research Council (CNRS) that failed during measurements in the Arctic Ocean (autonomous vehicle that measures at sea and moves using the floating flotation center) has been rescued. Projects are especially carried out to understand global climate change and the effects of people on the environment; by determining microplastics, organic and inorganic pollutants in the oceans and their sources, pollution in the atmosphere was measured by air quality measurements. Meteorology and sea ice observations were made and ecosystem monitoring studies were carried out. In addition, while working to raise awareness in the society, a documentary about the campaign was published.

Due to its political, scientific, and strategic importance, polar research is carried out under a national umbrella in many countries. For instance, the British Antarctic Survey, a queen-bound unit in the UK, and the Australian Antarctic Division, which is affiliated to the Ministry of Agriculture, Water and Environment. In this sense, Scientific and Technological Research Council of Turkey (TUBITAK) Marmara Research Center (MAM) Institute of Polar Research (KARE) was established to execute polar research under a national umbrella in December 2019.

During the very latest expedition conducted in Antarctica, 24 researchers participated in the Fourth Turkish Antarctic Expedition (TAE-IV) held in February-March 2020 to carry out 15 scientific projects for about 1 month. During which 2 Global Navigation Satellite System (GNSS) stations installed on Horseshoe Island. In addition, a GNSS station was established on Dismal Island, 70 kilometers away from Horseshoe Island, in cooperation with the Ministry of National Defense Map General Directorate. In TAE-IV, which included 3 physical sciences, 3 life sciences, 4 social sciences and 5 geo sciences, a total of 15 projects, measurements done, and samples were taken to monitor global climate change. Along with sea and lake sampling, snow and various life sciences sampling was also carried out. TAE-IV team continued to work in the region at the time of record high temperatures measured in Antarctica. These record air temperatures, which emerged as an effect of global climate change, caused great changes in the region, allowing researchers to carry out their daily field studies for longer periods of time.

While Turkish scientists have been conducting individual studies since 1967 with international collaborations, collaborations have been taken into an institutional framework as of 2015. Projects, accepted by TÜBİTAK ARDEB call, are also sent to the continent to take part in the scientific bases of foreign countries in Antarctica. Since 2015, more than 30 Turkish scientists have worked at foreign country bases with bilateral collaborations.

After performing the expeditions, transfer of scientific samples to Turkey take approximately 2 months. After the analysis of samples, the results of the projects carried out are also published in national and international articles. 24 papers, 3 in physical sciences discipline, 13 in life sciences discipline, 7 in geo sciences discipline and 1 in the social sciences discipline, have already been published (kare.mam.tubitak.gov.tr, 21.05.2020). It is also known that there are publications in the preparatory stage.

Turkey is a non-consultative state to the Antarctic Treaty and it is not entitled to vote in decisions taken regarding the continent. Under the Antarctic Treaty to be a consultative state, it has been stipulated to carry out significant scientific research. The publications made within the framework of the projects carried out within the scope of the TAEs show the significant scientific research. Another requirement is to have full membership to the Scientific Committee on Antarctic Research (SCAR). Turkey is an associate member to SCAR since 2017. Application for full membership was planned to 2020 meeting. However, cancelation of the meeting because of COVID-19, application to SCAR is postponed to next meeting. Turkey is an observer to Council of Managers of National Antarctic Program (COMNAP) since 2018. Turkey's application for full membership in 2021 planned to perform, to provide another necessary condition to consultative status to the Antarctic Treaty.

Turkey's application for membership of the Arctic Council observer status has not been finalized due to lack of sufficient study in the field. Programming related to membership to the International Arctic Scientific Committee (IASC) will be made within the body of TÜBİTAK MAM KARE.

Fourth Turkish Antarctic Expedition and COVID-19

The Fourth Turkish Antarctic Expedition (TAE-IV) team, which the expedition was held in the 2019-2020 Antarctic season, was trained against the difficulties and emergencies that they might experience in Antarctica and onboard before the expedition. The team also underwent examinations and controls regarding health conditions determined by Istanbul Medical Faculty Underwater Medicine and Hyperbaric Medicine Department and Marmara University Faculty of Sport Sciences (Aktaş et al. 2017). It was seen that the entire team met the necessary health conditions. Additionally, the medical doctor, included in the expedition team, was given training on the prevention of epidemic diseases. Masks in N95 standards were distributed to all teams and measures were taken.

TAE-IV started on 9th of February 2020 and team reached to Sao Paulo/ Brasil on the 10th of February, 2020. On the same day, the team transferred to Santiago, the capital of Chile, from here to Punta Arenas and finally to Puerto Williams on a local flight. The team, who stayed there for 2 nights and adapted to the climatic conditions and time difference, was also constantly

observed for cold symptoms. Team arrived to King George Island with a charter flight and embarked to chartered vessel. It has been confirmed that the ship's crew has been in Antarctica for about 2 months and has not shown any cold symptoms, and the cabins allocated to the Turkish team have been disinfected and the precautions on the ship have been completed. In Table 1, the distribution of COVID-19 cases on the departure route and in the World is shown cumulatively. During the voyage, both scientific members and crew members were observed for cold symptoms.

Table 1. Cumulative COVID-19 Cases on the way to the Fourth Turkish Antarctic Expedition

Country/Date	09.02.2020	10.02.2020	11.02.2020	12.02.2020	13.02.2020
Turkey	0	0	0	0	0
Brasil	0	0	0	0	0
Chile	0	0	0	0	0
World	37.569	40.627	43.109	45.175	60.387

Source: *World Health Organization*

Return of the TAE-IV team to Turkey has been scheduled on March 18, 2020. However, the good weather conditions on the continent and less sea ice areas shorten the route. Also, because of wide spread of COVID-19 epidemic, return rescheduled on March 7, 2020 to Punta Arenas. On the March 8, 2020 team returned from Punta Arenas to Istanbul using same route. The team, who used N95 standards mask on the return route, was also recommended to stay in quarantine for 14 days and to apply to the health institution in case of any cold symptoms. In addition, the team was kept under surveillance by family physicians, and it was observed that there were no COVID-19 cases in the expedition team and / or their families at the end of 14 days. Along with the measures and strategic decision taken, additionally the weather conditions allowance made the early return possible. The time spent during the expedition has also led to the fulfillment of all planned scientific studies. It can be seen in Table 2 that the first planned dates are 17-18 March 2020, and the COVID-19 cases in the world are almost two times more than the cases at the time of return.

Table 2. Cumulative COVID-19 Cases on the Fourth Turkish Antarctic Expedition Return Route

Country/Date	07.03.2020	08.03.2020	17.03.2020	18.03.2020
Turkey	0	0	47	191
Brazil	19	19	234	291
Chile	5	10	156	238
World	105.063	108.994	191.473	209.838

Source: *World Health Organization*

Preparations for the Fifth Turkish Antarctic Expedition, which is planned to take place in the 2020-2021 Antarctic season, have been launched. COVID-19 is evaluated as a part of our daily life and updates are made in training of participants and health planning. It will be ensured that the designated expedition participants are subjected to the COVID-19 test at least 14 days before the trip date, and then the participants will be isolated in their homes as much as possible. In addition, improvements will be made regarding the prevention of epidemics in the training program/planning period. It is planned to provide personal protective equipment and materials to be used in the treatment of COVID-19 among the medical equipment and drugs to be found with the expedition team. In addition, the route will be preferred, which will be chosen during the flights by countries where COVID-19 cases are less common. There might be an arrangement of direct a flight to gateway to Antarctica is possible too. Just as an example, it was announced that Australia, one of the strongest actors of Antarctica, not much scientific projects will be conducted this year. The construction activities of the new station are also stopped (antarctica.gov.au 21.05.2020).

Conclusion

Understanding the future of the world means actually understanding the past and the present. Polar Regions contain information about the Earth's past, such as an almanac. There are various consequences due to global climate change; such as agricultural lands and freshwater resources are decreasing, more extreme weather events are experienced, and migration due to these effects is expected to occur. Turkey is also affected by these consequences as a mid-latitude country. Naturally, past can be studied from various samplings for different disciplines, however future models are mainly created with data collected from Polar Regions. Understanding the future of both our country and the world gives us ideas about what problems are waiting for us and how we should take measures.

Decisions on Polar Regions, which are not only scientifically but also politically, are made on different platforms by the votes of various countries. For example, while negotiations on the Arctic Ocean are carried out in the Arctic Council, decisions on Antarctica are taken by the votes of the consultative states under the Antarctic Treaty. Turkey's observer membership to The Arctic Council is in process, while working to become a consultative state to the Antarctic Treaty.

Being geographically remote from the Polar Regions causes to spend more time and effort on logistics and are limited with the summer season. The fact that the scientific data can be obtained only in the summer season causes deficiency in scientific studies. Nevertheless, efforts have shown by Turkey in recent years, scientific activities and supports starting from the top level of the state attracted the attention of other countries and appreciated. A great work is being done to make Turkey to have an active role on decision making about the Polar Regions.

When we consider all these, it is seen that in order to continue the successful studies in the polar regions even more successfully, it is necessary to have science stations that can provide year-round data in both polar regions and a Turkish flag ship that can be used to provide logistics and research in this station. This is also important for reducing the dependence on foreign sources in transportation to polar regions and especially for preventing epidemic diseases.

Turkey is a growing global power. We can see this in many areas. Even in the epidemic of COVID-19, Turkey helped many countries, gave hand without hesitation, and added new products to its industry. Turkey's increasing power by breakthroughs in all areas, an inevitable fact of being a force on the Polar Regions.

Even Turkey held its first national expedition to Antarctica in 2017, majority of international partners agreed on "Turkey's being on the right track with right strategies". In 2019, the first Turkish Arctic Scientific Expedition was held. Again, in 2019, the first Turkish facility was deployed in Antarctica. At the institutional level, the Polar Research Institute was established under the umbrella of TÜBİTAK in 2019. Antarctic expeditions host various countries as guest researchers and logistic and scientific support is provided to foreign countries when necessary in both polar regions. Considering all these breakthroughs it would not be wrong to call Turkey as a new polar power.

Antarctica is a continent dedicated to peace and science, and here we can see that scientists are helping each other without any discrimination. It becomes easier to understand solidarity in Antarctica considering Turkey's help to many countries during COVID-19 epidemic. For instance, Argentina and the UK signed a cooperation agreement in Antarctica in 2019, even though both have alleged rights over the same region in Antarctica. Turkey extended its help to many Antarctic states such as USA, Germany, UK, France, Italy during COVID-19 epidemic. Thus, it could be seen that there will be more collaboration between Turkey and those countries.

References

Aktaş, Ş, Mirasoğlu, B , Yumbul, A , Çotuk, H . (2017). Medical Consultancy of The First Turkish Antarctic Research Expedition 2016. *Journal of Istanbul Faculty of Medicine , 79*(4) , 153-156 . DOI: 10.18017/iuitfd.308490

Alley, R. B., Clark, P. U., Huybrechts, P., & Joughin, I. (2005). Ice-sheet and sea-level changes. *science*, *310*(5747), 456-460.

Anisimov, O., Fitzharris, B., Hagen, J. O., Jefferies, R., Marchant, H., Nelson, F., ... & Vaughan, D. G. (2001). Polar regions (arctic and antarctic). *Climate change*, 801-841.

Australian Antarctic Division. (2020). Impacts of COVID-19 on the Australian Antarctic Program. Retrieved from: https://www.antarctica.gov.au/news/2020/impacts-of-covid-19-on-the-australian-antarctic-program/ (01.06.2020)

BBC. (2020). Bitesize - Polar biomes. Retrieved from: https://www.bbc.co.uk/bitesize/guides/zt7hvcw/revision/4 (21.05.2020)

Behrendt, J C. (1983) *Petroleum and mineral resources of Antarctica*. United States.

Brown, O. (2008), Migration and Climate Change. *IOM Migration Research Series, International Organizastion for Migration*

Council, A. (2007). *About Arctic Council* (Vol. 26). November.

Curry, J. A., Schramm, J. L., & Ebert, E. E. (1995). Sea ice-albedo climate feedback mechanism. *Journal of Climate*, 8(2), 240-247.

Dong, L., & Bouey, J. (2020). Public mental health crisis during COVID-19 pandemic, China. *Emerg Infect Dis, 26*(7), 10-3201.

Guidelines for States Concerning the Management of Communicable Disease Posing a Serious Public Health Risk, International Civil Aviation Organization, 2013

Heleniak, T., & Bogoyavlensky, D. (2015). Arctic populations and migration. *Arctic human development report: Regional processes and global linkages*, 53-104.

Huybrechts, P. (1993). Glaciological modelling of the Late Cenozoic East Antarctic ice sheet: stability or dynamism?. *Geografiska Annaler: Series A, Physical Geography, 75*(4), 221-238.

Jabour, J., & Smith, D. (2018). The Ross Sea region marine protected area: can it be successfully managed?. *Ocean Yearbook Online*, 32(1), 190-205.

Jacobs, S. S., Hellmer, H. H., & Jenkins, A. (1996). Antarctic ice sheet melting in the Southeast Pacific. *Geophysical Research Letters, 23*(9), 957-960.

King, H. (1986). Epidemiology in Antarctica?. Journal of epidemiology and community health, 40(4), 351.

Kirmayer, L. J., Boothroyd, L. J., Laliberté, A., & Simpson, B. L. (1999). Suicide Prevention and Mental Health Promotion in First Nations and Inuit Communities. Culture and Mental Health Research Unit Report.

Kullerud, L., Beaudoin, Y. C., Poussart, J. N., Prokosch, P., & Sund, H. (2013). The Arctic Ocean and UNCLOS Article 76: are there any commons?. In *Environmental Security in the Arctic Ocean* (pp. 185-194). Springer, Dordrecht.

Ma, L., Wang, B., & Cao, J. (2020). Impacts of atmosphere–sea ice–ocean interaction on Southern Ocean deep convection in a climate system model. *Climate Dynamics*, 1-19.

Morens, D. M., Folkers, G. K., & Fauci, A. S. (2009). What is a pandemic?. *The Journal of Infectious Diseases, 200(7),* 1018-1021. DOI: 10.1086/644537

National Snow & Data Center. (2019). Arctic sea ice at minimum extent for 2019. Retrieved from: https://nsidc.org/news/newsroom/arctic-sea-ice-minimum-extent-2019 (21.05.2020)

Portnov, A., Vadakkepuliyambatta, S., Mienert, J., & Hubbard, A. (2016). Ice-sheet-driven methane storage and release in the Arctic. *Nature communications, 7*, 10314.

Seidov, D., Barron, E., & Haupt, B. J. (2001). Meltwater and the global ocean conveyor: Northern versus southern connections. *Global and Planetary Change*, 30(3-4), 257-270.

Suedfeld, P., & Weiss, K. (2000). Antarctica: Natural laboratory and space analogue for psychological research. *Environment and Behavior, 32*(1), 7-17.

TÜBİTAK Kutup Araştırmaları Enstitüsü. (2020). Retrieved from: http://kare.mam.tubitak.gov.tr/ (21.05.2020)

T.C. Sağlık Bakanlığı Türkiye Hudut ve Sahiller Genel Müdürlüğü. HSSGM. (2020). *Uluslararası Sağlık Tüzüğü-2005*. Retrieved from: https://www.hssgm.gov.tr/content/documents/belgeler/Uluslaras%c4%b1%20Sa%C4%9Fl%C4%B1k%20T%C3%BCz%C3%BC%C4%9F%C3%BC%20-%202005.doc (01.06.2020)

Wadham, J. L., Arndt, S., Tulaczyk, S., Stibal, M., Tranter, M., Telling, J., ... & Sharp, M. J. (2012). Potential methane reservoirs beneath Antarctica. *Nature, 488*(7413), 633-637.

Yang, J., & Neelin, J. D. (1993). Sea-ice interaction with the thermohaline circulation. *Geophysical research letters*, 20(3), 217-220.

Zimmer, M., Cabral, J. C. C. R., Borges, F. C., Côco, K. G., & Hameister, B. D. R. (2013). Psychological changes arising from an Antarctic stay: systematic overview. *Estudos de Psicologia (Campinas), 30*(3), 415-423.

Web Sources

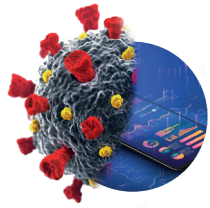
Australian Government Department of Health. (2020). *History of pandemics*. Retrieved from: https://www1.health.gov.au/internet/main/publishing.nsf/Content/about-pandemic-history (20.05.2020)

Mosaic. (2020). *The Expedition*. Retrieved from: https://mosaic-expedition.org/expedition/ (20.05.2020)

The Arctic. (2020). *Population*. Retrieved from: https://arctic.ru/population/ (19.05.2020)

Viglione, G. (2020). Coronavirus crisis hits ice-locked Arctic research expedition. *Nature*. Retrieved from: https://www.nature.com/articles/d41586-020-00724-y (20.05.2020)

WHO. (2020). *Coronavirus Disease (COVID-19) Dashboard*. Retrieved from: https://covid19.who.int/ (20.05.2020)



Media, Sports and Entertainment Industry in the Post-pandemic Period

Yasin Bulduklu
M. Murat Yeşil

Assoc. Prof. Yasin Bulduklu

Assoc. Prof. Dr. Yasin Bulduklu received PhD degree in 2010 Research Methods field in Selcuk University. After working as a faculty member at Necmettin Erbakan University between 2011-2019, he has started as a faculty member at İzmir Kâtip Çelebi University, Faculty of Social and Humanities, Department of Media and Communication. Dr. Bulduklu has authored books titled as Health Communication (2010), Communication with Patients (2015), Impression Management (2015) and Mass Communication Theory (2019). His academic interests are corporate communication, social media, media and society, health communication, mass media research, impression management and public relations.

Assoc. Prof. Murat Yeşil

M. Murat Yesil, graduated from the English Department of Gazi University. He received his M.A. and Ph.D. in Journalism from İstanbul University. He taught English at various high schools in Eskişehir and İstanbul. Then, he started working as a reporter at Türkiye daily. In 1986, he became Foreign News Editor. He travelled more than 30 countries to cover international conferences, and interviewed top ranking politicians of the world including 20 Presidents and Prime Ministers. He has published a great number of articles, interviews and serials. In 1993 he was appointed New York Bureau Chief of Türkiye daily. There, he covered international conferences at the UN Headquarters. Then, he started publishing "FORUM- Turkish-American Newspaper" in New York, in 2003. After publishing it for 11 years, he left the US and started working as an assistant professor at University of Necmettin Erbakan in Konya, in 2012. He taught Journalism. He became Associate Professor three years later. Presently, he is teaching at İstanbul Commerce University. He is the author of three books and 20 articles.

Media, Sports and Entertainment Industry in the Post-pandemic Period[1]

Yasin Bulduklu
İzmir Kâtip Çelebi University
drbulduklu@gmail.com

M. Murat Yeşil
İstanbul Ticaret University
mmyesil@ticaret.edu.tr

Abstract
Media, entertainment and sports sectors affect economic systems and other sectors due to their relationship with other sectors; are areas that concern everyone in the social life, far or closely. The fact that the COVID-19 outbreak, which was on the agenda of the world at the end of 2019 and was declared as a pandemic by the World Health Organization due to its alarming spread on March 11, 2020, is closely related to this social interest. Right after the declaration of a pandemic because of the symbiotic nature of the sector, in accordance with the decisions taken in the world and in Turkey, entertainment venues closed, media content industry crisis emerged, individual and collective sporting events is prohibited. Prohibitions have revealed short, medium and long-term negativities on each sector, and technological convergence and increased digitalization have enabled these sectors to breathe partially through alternative practices. The process also has the potential to reveal opportunities and threats in the long run. The pandemic situation created a new paradigm in media use and entertainment, and even rituals of religious and cultural origin, such as holidays, have kept up with this change. Digitalization, which received the most criticism in academic life and practice, became more involved in life after the COVID-19 outbreak; It stands out with its potential to be the most effective medium of entertainment and sports. This study aimed to describe what happened in the process of the pandemic in the world and in Turkey, the status of the entertainment and sports industry are analyzed in the context of literature and sectoral data and projections for the future are put forward. In the study, the media and entertainment sector are handled under the same heading with their different dimensions, the interaction of the sectors and their increasing convergence are emphasized.

Keywords
Sports and COVID-19, Pandemic and Entertainment, Media and Pandemic, Convergence

[1] This study is a translation and updated version of the paper previously published in the book titled "Küresel Salgının Anatomisi: İnsan ve Toplumun Geleceği" by TÜBA in June 2020.

Introduction

Pandemic processes that describe global outbreaks have the potential to affect the political, cultural and social sphere, especially the economy. The global epidemic, which negatively affects all world economies and economic dynamics, has put face-to-face relationship and communication on the shelf for an indefinite period and made it necessary to change existing habits. Like many face-to-face communication and relationship sectors, the media, entertainment and sports sectors have been significantly affected by the global epidemic. In times of epidemic, where social distance protection is the most important measure, contact-based activities, where many people gathered, have created a cancellation agenda in every period due to its potential to create a ground for the spread of the virus. Suggestions for maintaining the social distance recommended for each epidemic period, cleaning sensitivity and abandoning some cultural habits were expressed in a higher tone in the COVID-19 process and suggestions requiring restriction of behaviors were expressed more by experts. The COVID-19 pandemic, where serious constraints have been implemented by going beyond the suggestion dimension, has also made it necessary to review the media consumption and established entertainment habits and the dynamics of the sports industry.

The COVID-19 outbreak has created fear and anxiety in the masses since its inception, spreading rapidly to almost all countries in the world. Social and physical distance measures, which have become widespread to prevent the spread of the disease, have also meant closure of businesses that do not provide vital functions in terms of health, lockdown of schools and social life in general. This new situation, which transformed social relations into a remote and technically mediated form, stopped real sports and physical activities and caused entertainment venues to be closed. With more time spent in traditional media, it has led to the evolution of all areas, including the media, to digital. It has had a significant impact on many established dimensions of life and

culture. Immediately after the global pandemic was declared on March 11, 2020, the first sectoral measures were the ones that set restrictions on the entertainment and sports industry. Governments in different countries and regions of the world have decided to close entertainment venues primarily, suspended or postponed all sports planning and competitions, primarily in local organizations, to protect the health of athletes and related activity stakeholders. In the following period, decisions regarding the cancellation of international sports organizations came one after another. In this context, marathons, olympic games, football tournaments, athletics championships, basketball games, handball competitions, ice hockey, rugby, cricket, sailing, skiing, wrestling barbell etc. many events were postponed or canceled.

More digitization of life in every field and voluntary increase in technology literacy were experienced thanks to the COVID-19 pandemic. In terms of the history of humanity, which has influenced the whole world, this rare situation has created certain effects on the traditional media industry, causing a wide area from education to entertainment, from social relations to worship on the network-based technologies. The increasing use of new media from the moment the epidemic first emerged has become an indispensable part of daily life with applications that help combat the pandemic in the future and provide control. The new media, in which information was spread uncontrollably at the beginning, became the medium where the real data related to the operation of the process was directly disclosed to the public by the competent authorities. The social platforms where campaigns to raise awareness with the hashtags used have attracted more attention with their potential to provide information about the roles they will play in the future. Although the measures are similar to the previous ones, the COVID-19 outbreak differs from others as an outbreak in which all people adopt digitalization, voluntarily or unwillingly, and it seems to be honored to be mentioned in human history.

As with epidemics occurring in different periods of human history, the COVID-19 pandemic has been the subject of awareness with its feature that concerns all people and creates a panic situation in the world. However, it threatened habits more severely than before, disrupted what was planned, forced them to change their lifestyle, and radically changed established relationships and communication. It would not be wrong to say that the most important health threat of recent history is COVID-19. This situation, which pushed habits and lifestyles on a global scale, changed consumers' priorities and revealed a natural decrease in entertainment and sports spending. The pandemic, which currently causes a rapid decline in production and consumption, more and more, seems to continue to be the agenda of different areas with its far-reaching effects on the media, sports and entertainment industries in the long term. In addition to affecting sports as an industry, it will also affect athletes, sports styles, sports support and socialization patterns. In this study, the effects of COVID-19 pandemic, which first came to the agenda of the world at the end of December 2019 and created a vigilant situation as of March, to the media, entertainment and sports sector are discussed. What happened in the

period until June 2020 is examined in the example of sports, entertainment and media fields. In this context, the beginning and continuation of the pandemic and the situation related to the partial normalization processes are handled within the context of sectoral data and studies in the literature, and the projections regarding the future of the relevant sectors, opportunities and threats are presented.

Media and Entertainment Sector in the COVID-19 Period

The COVID-19 epidemic, which is supposed to be limited to China at the beginning, has spread all over the world thanks to the mobility of people and measures have been put in place for people to stay in their country and then at home; flight prohibitions were introduced, collective events were canceled. Restrictive measures for tourism have been taken in connection with travel bans; subsequent restrictions on the entertainment industry were implemented. Like all countries in the world, six days after the date on which the first cases seen in Turkey, activities, entertainment venues on 16 March 2020 temporarily halted. The measures and prohibitions that restrict the coexistence of people have affected spatial entertainment, directly and immediately, and mediated entertainment indirectly and for a long time.

Unprecedented global travel restrictions and domestic orders have led to a situation that has caused the most serious disruption of the global economy since the Second World War. International travel bans, which affect more than 90% of the world's population, have created wide-ranging restrictions on social mobility (Gössling, Scott & Hall, 2020: 1), and the media and entertainment industry has been significantly negatively affected by this situation. The entertainment sector, which provides services based on the disabling of the social distance, has naturally been the first thing that comes to mind. As a result of this naturalness, the first measures of the countries have been to restrict entertainment venues, and many other areas related to the sector have been affected and continue to be affected. After the home-stay instructions, content production for the television and film industry stopped with spatial entertainment, and the absence of an urgent action plan for mediated entertainment, which is expected to be an alternative to spatial entertainment, sentenced the viewer to stock footage. Every face to face activity and entertainment stopped naturally; theme parks, concerts and sports grounds, movie theaters and museums have also suspended their activities.

The effects of the epidemic that put even the giant economies in depression seem to continue gradually. The decline in economic activities will reduce the income of countries; economic shrink will have affected the travel and tourism sectors firsthand (Açıkgöz and Günay, 2020: 521). It is an expected situation that its widespread effects will be more on entertainment after the pandemic process. Regarding economic impact, Yorulmaz and Kaptan (2020) rank the sectors that are most affected by the short-term to long-term epidemic, as

tourism, entertainment and culture. Restaurants and cafes, transportation and transportation sector, especially airline business, oil and natural gas, energy sector, automotive industry, agriculture sector, consumer products and finally manufacturing industry are seen as areas that will feel the impact of the period for a long time.

The COVID-19 outbreak, which points to extraordinary conditions all over the world, has created a state of fear and panic despite the developing technology, medical science and advanced defense industry, and forced to change the way of rest and entertainment radically. Measures that are essential to imprison people between the four walls have moved entertainment, home, and creative solutions for entertainment at home have become widespread with the support of social media. New lifestyle, which restricts coexistence in a common space, traveling, group meetings, forced cinema, theater, cafe, bar, etc. extending to forced closure of entertainment venues and redesigning behaviors in these areas. The effect of pandemic on entertainment is undoubtedly not only specific to the space-based form. Traditional media, which is the most important tool for entertainment at home, also had difficulty in creating content, and there were significant difficulties in meeting the increasing demand for these tools. The problem of content experienced in the traditional form of entertainment at home, supported by media companies, forced the presentation of available stock content, and new production could not be made in traditional media except for news or news content programs. Despite the increasing viewership, the fact that the mass media have a content problem has created negative situations on the advertising industry. Entertainment programs such as Survivor, which was planned previously and whose shooting continues due to being located abroad in the process, turned the crisis into an opportunity and were in great demand in both traditional and new media. The advertising and promotion revenues of programs other than these have come to a halt, businesses have narrowed their advertising channels and have had to cut the payments. Especially, the advertising sector for events stopped, and the stopping of channels such as sponsorship and fair triggered this situation.

Cinemas were the first places affected by the World Health Organization's pandemic decision. The closure of cinemas primarily affected the producers who entered the vision or made vision plans, advertising and sponsorship revenues and other taxes levied accordingly could not be collected. The film industry's extreme profit-based production style and increasing demand for content have required the online entertainment industry to evolve online. Streaming platforms such as Netflix, Hulu, YouTube, Apple TV and Amazon, which were previously digital and offer optional content, have rapidly released their productions and increased their share of the global pie in the crisis-fitting home. Looking at Netflix productions, there are none of the programs found on normal televisions such as sports, news, entertainment, competition. It opens people up to a world made up of movies and TV shows. Sometimes a story, which cannot be even the length of a movie, is presented in a series of several seasons. Netflix cuts off "face-to-face communication" in societies,

street, outside, talking to people and communication. Netflix cuts off "face-to-face communication" in societies, street, outside, talking to people and communication. TA person who comes home from his work or school retreats to his room and sitting in front of TV and watching his serails, and often accompanied by a freedom given around the image of "you are in control", he takes his place in that world, pairing back and forth at will. This relative freedom establishes a much more serious control mechanism than freedom, in the way it starts from the season or episode of the movie or series he wants. Global culture fills people's leisure time, even the time they spare from work and family, without leaving it to anyone. Netflix destroys the idea of routine, the curiosity, mystery, patience, the opportunity to complete the events with dreams and creativity inspired by the fact that the series comes to the screen on a certain day, and it expresses the hunger and insatiability to complete a continuous production and start a new one (Yıldırım, 2020). According to Accenture (2020) data, Netflix increased the number of its members in this process. According to the data obtained in the early days of the pandemic (March 2020), the number of Netflix downloads in Italy increased by 57% and 34% in Spain is the most important indicator of the trend towards online content. Again, Netflix's application, which allows Netflix users to access content together and remotely in groups, is a good example of turning the crisis into entertainment. Netflix and other paid platforms, which allow 10 million people to watch movies together in this process, are growing out of the crisis and the biggest winner is Netflix. These platforms, in which the number of new members has increased significantly in the process, will continue to gain customers for the crisis.

It is suggested that the global film industry will emerge from the epidemic with a shrinkage of around 5 billion USD despite digital solutions. After the COVID-19 pandemic, many Hollywood movie productions have been postponed indefinitely. Layoffs in the entertainment industry have increased to unprecedented levels (Ozili and Arun, 2020). It is not possible to foresee the recovery period of the sector in the current situation after normalization. Therefore, the first predictions are for life to return to normal after the second half of the year. Considering the arguments claiming that these predictions will extend until the beginning of September 2020, it seems likely that the effects on the industry will continue for a long time.

Online platforms for the film industry have the potential to create advantageous conditions. In addition to this situation, which creates an opportunity for the film industry, games as another alternative to home entertainment have registered themselves as legitimate entertainment items in the pandemic process. The transition to home-based entertainment has revealed an increase in demand for game content, as well as paid platforms where content can be partially selected. The sale of mobile games in China increased 32% in February. UK game sales increased three times in the first week of March (Accenture, 2020). It is seen that domestic, free and online games are increasing rapidly as the consumers who spend more time at home turn to games. In mobile games,

especially games that appeal to the younger audience (PUBG, Brawl Stars, etc.) have come to the fore. Despite the rise in every yerdelig with mobile, console games are outstanding in the field of demand reduction (Deloitte Turkey, 2020). At approximately the same time, the decision to move schools to distance education around the world has made it imperative that hundreds of millions of children just spend time at home. Electronic tools, which are the objects of reward or punishment, which are allowed to be used by children under parental control before the pandemic, have become legitimate thanks to the process. Undoubtedly, the fact that digital technologies are the new medium of education has a great impact on this legitimacy. It is seen that the use of mobile phones for tracking lessons or subjects triggers the trend towards mobile entertainment. On the other hand, digital media, which is the biggest means of spending time at home, has become a field adopted by all segments of society, in the process of COVID-19. The pandemic situation, where data security, privacy and other values are ignored, has created a new paradigm in the field of entertainment, and even rituals of religious and cultural origin, such as holidays, have kept up with this change. Many relatives, who criticized the official or religious holiday celebrations through the new media in the past, were placed at the head of these devices in the first hours of the day due to the curfew on the first holiday of the pandemic process (Feast of Ramadan 2020).

After the explanations about the state of the cinema and game sectors, the information about the state of the theater, which was heavily affected in the sector, is also interesting in terms of revealing the state of the industry. The theater has not been able to keep up with new conditions as the movie and game industry. Contrary to the other sectors' ability to evolve into digital theater, the theater has not been able to escape from traditional forms, and the number of those who strive for this is almost nonexistent. Therefore, in the context of the sector's own rates, it is seen that the pandemic has done a lot of damage and the theater in the long term will be the most likely to lose. The International Association of Theater Workers said that 120,000 of its 150,000 members were unemployed during the pandemic, therefore, it is necessary to take global steps towards the sector (quoted by Ozili and Arun, 2020: 11). This is a clear expression of future concerns. In the music sector, the recording studios were closed as soon as the pandemic started, and a supply chain problem emerged. The long-term effect of a pandemic will make it difficult for music producers to produce new content to present to their audience (Mulligan, 2020). Although it is seen that those working in the music sector have begun to integrate to the new media, this situation has not exceeded efforts not to lose fans. It does not seem sustainable for television channels to focus on live and audience-free concert broadcasts.

While entertainment venues try to keep up with entertainment at home, it seems that there will be problems in charging the steps to be taken. Venues, artists, and other actors who want to retain the customer continued to present their content through social media during the pandemic process, and those with digital talent began to stand out in the competition. These steps, which

aim to prevent stagnation in the entertainment sector in the long term, can be considered as alternative entertainment orientation, provided that they can be charged. The entertainment sector is an area in close contact with other areas, and as a result, some sectors, primarily tourism and sports, are directly or indirectly affected by entertainment. Especially in the field of tourism, countries' prohibition of traveling to certain destinations narrows the scope of entertainment opportunities. Countries like Fransa, İtalya, Yunanistan, İspanya, Türkiye, which get significant shares from world tourism income will inevitably affected by this situation. Apart from the necessity of keeping entertainment facilities closed within the scope of the measures, the economic burden created by the pandemic on households and individuals has secondaryized the compulsory requirements such as entertainment. This situation has narrowed the categories in the needs and made it necessary to reduce the expenses related to the minor needs. Although pandemic processes also require government supports to be directed to certain areas, it is expected from the real perspective that the entertainment sector gets the least share from this cake. Considering that it is the natural result of people moving away from social life, it is inevitable that the biggest contraction is in the entertainment industry. The pandemic process has revealed a significant limitation of out-of-home expenditures in consumption items as an essential condition. It is unrealistic to expect people to budget their sports broadcasts and entertainment opportunities in a process they learn to bake at home.

Making an accurate conclusion about the real situation of the entertainment industry in the pandemic process does not seem high probability in terms of the ongoing process. Because it is not possible to predict the time and level of complete normalization in the current situation. The entertainment industry seems to have entered a period of stagnation in the period of March 2020 and May 2020, but the potential to adapt to the new situation is high. In particular, the content that some enterprises serve in accordance with the concept of remote entertainment can be considered as an opportunity for the sector if it can be compensated. However, besides all these, it is a fact that the support for the entertainment industry is ignored by the governments all over the world and the entertainment industry is left alone in the fight against the crisis. The fact that there are no improvements for the entertainment sector in the announced support packages is the most important issue that should be emphasized in the analysis of the situation.

COVID-19-Period and Sports Sector

While sport is seen as a narrow area compared to other sectors, it is a sector that uses more intermediates and creates added value for other sectors. The sports sector, which is intertwined with entertainment, serves as the locomotive of economic and social development as well as its social functions. Sports is an industry in which people show interest in their spare time or follow as a fan by creating free time. A pandemic in sports, which is an important area for many countries' economies, has affected the sports habits both personally and

professionally in the industry. Individual sports and exercises could not be done within the scope of the ban on sports centers. The social distance rule and the measures to prevent the spread of the outbreak have led to the postponement or cancellation of sports events around the world by governments. Besides the global games such as the Olympic games, global championships and Euro 2020, all amateur and professional local competitions were affected by these delays and cancellations.

Although sports are affected individually and organizationally by the pandemic, this section focuses only on the relationship between sports and pandemics as a professional industry. Organizational size sports seem to have received a "hard blow" from the epidemic, in the words of Mulligan (2020). The fact that leagues mean more than just sporting events recalls the potential to create a butterfly effect in the medium and long term. It is an expected result that the effects of sports on production and especially consumption will spread to a wider range in the short, medium and long term. From this point of view, it is necessary to consider the structure involving a large number of stakeholders in the steps towards sports organizations. Sports activities require timely and effective decision making, especially during epidemic periods. Organizations that mediate this type of social cohesion need to be controlled in all dimensions and processes of the outbreak and special measures must be taken.

The sports sector is too large to be compressed into the size of the matches and it should not be overlooked that it has the potential to affect a large number of stakeholders and the sector. It performs functions beyond the sport, health or social dimension, and the economic dimension of its functions is becoming increasingly important. The publishing, advertising and media industry is in an intricate association with sports. Sponsors, fans, markets where the teams supply the form and other symbols, players, are the primary stakeholders of the sport. Within the scope of its secondary stakeholders, the transportation and accommodation sector, and various employees of the sports industry can be counted. Therefore, evaluations about sports should be made by taking into account the social, psychological and economic dimensions of all these publics. Almost all of the services in the sports sector have become professionalized, which should be evaluated considering a broad framework. All dimensions of the sport, where important economic amounts show fluidity at national and global level, and economic outputs are an important factor on the national economy, is the most important issue to be taken into consideration in the evaluations. In addition, the sports sector is an area where duties or responsibilities are executed through contracts and other agreements as a result of professionalism. Sponsorships create significant economic burdens for the sponsor, unless they are based on force majeure, but insurances, sportsman payments, stadium or hall expenses, personnel, etc. all expenditures create significant difficulties in decisions regarding the sports sector. The negative impact on sports has the potential to affect other entertainment areas, especially the broadcasting industry. Negative results lead to the decrease in the broadcasting costs of professional clubs, a decrease in sponsorship and advertising revenues, and a contraction in the country, region and world economy.

The COVID-19 pandemic seems to have influenced football, which has the highest number of followers globally, then any other sport. After the pandemic decision, it was decided to play the matches without the fans first, and in some leagues this application was implemented for a short time (maximum two games). However, the fact that the end-of-game tests were positive in some players and the increasing COVID-19 case numbers in general forced the sports management to delay or even cancel the matches. Considering the typical training and match behavior, the immediate cancellation of the leagues, the persistence of some leagues in this process while the expected situation can be interpreted as the unpredictability of the results in its simplest form. However, interventions made in dressing rooms, during social activities or injuries, all situations related to education and competition that occur are also the requirements for urgent decisions to cancel or postpone. Sharing personal objects such as towels and water bottles among athletes is also a reason for delaying competitions for the pandemic (Muñoz and Meyer, 2020: 85). After COVID-19, football organizations were canceled or suspended all over the world. This situation is unprecedented for football, II. It led to the postponement of global organizations that had never stopped from World War to Covid - 19. On 18 March 2020, FIFA had to make decisions to maintain and guide contracts for both players and clubs. FIFA (2020), which established a working group in response to COVID-19, declared that it accepted the current situation as a force majeure by using the authority arising from its legislation. Sports organizations that were not canceled in the face of any health crisis, including the 2002-2003 SARS outbreak prior to COVID-19, the 2009 H1N1 (Swine) flu outbreak, or the 2015-2016 Zika virus outbreak, were delayed or canceled as of the first half of 2020 (Booker and MacBride, 2020: 1). Turkey, likewise a week after the cancellation of league play without spectators for some of the decisions were put off for some branches; primary and secondary stakeholders, particularly broadcasters and sports media, were negatively affected. It was observed that especially the sports channels of league broadcasting gave old matches under the name of nostalgia generation and could not develop a different content approach. Parallel to the sports media, there has been a high drop in betting sites. Turkey and the European football leagues have been suspended. Betting sites highlighted international leagues and different branches but expected synergies could not be created. Thus, the loss is expected to be large at all levels (Deloitte Turkey, 2020). Sports events around the world have stopped almost completely between March and May. Countries such as Belarus, Turkmenistan, Taiwan, Nicaragua and South Korea, which do not have high interest in sports, do not have the potential to reveal global interest in sports media, even though they have continued their organizations. Therefore, the stopping of sports organizations, advertising and sponsorship revenues, taxes on broadcasting, the claim and betting sector have disrupted many sectors such as transportation, communication, and money publishing. Postponing or completely canceling sports events will result in both a decrease in media revenues and a reduction in the money transferred by the media to these sectors. The media, which cannot transfer the content or publish sports activities, will lose the income it earns from the

ads and membership contracts that it depends on first order, and this will result in the narrowing of the portfolio in the sports industry. Today, the effects of this situation, which is partially felt, can be understood more clearly in the long term.

While governments' interventions have changed, the pandemic has led to the almost complete failure of competitive sport at all levels. Although Euro 2020 is postponed to 2021, Tokyo Olympics and Paralympic Olympics are postponed for a year, cancellation of Eurocup and Eurolegue in basketball is the medium-term reflections of COVID-19 to sports. Postponing the European Water Sports Championship, taking the LPGA tour to September are examples of cancellations and postponements other than popular sports. Considering that the cost of canceled games to sponsors and organizers is billions of dollars, the extent of the losses that the entire sports industry must compensate in the long run becomes more understandable (Ozili & Arun, 2020). Some of the possible cancellations or postponements that may have an impact on the global from sports organizations within COVID-19 are summarized below:

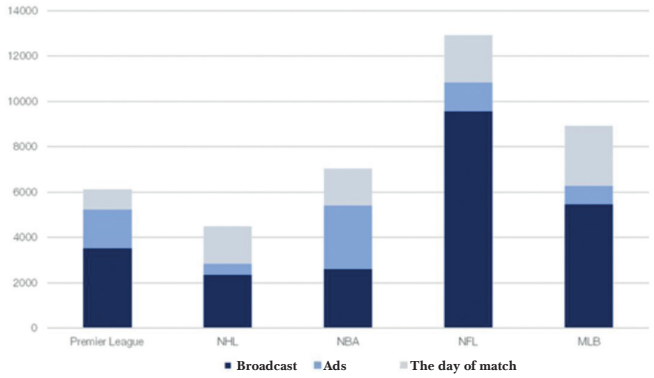
- *World Athletics Indoor Championships were postponed to 2021.*
- *Asian Athletics Association canceled the 9th Asian Indoor Championships.*
- *Tokyo Olympics were postponed to 2021.*
- *The 134th Wimbledon Tennis Tournament, scheduled for 29 June - 12 July 2020, has been postponed*
- *Tokyo 2020 Olympic Summer Games scheduled from July 24 to August 9, 2020 are delayed*
- *UEFA postponed the Champions League final, the Europa League final and the Women's Champions League final, scheduled to take place in May.*
- *Euro 2020 postponed to 2021*
- *The London Marathon was postponed.*
- *Formula -1 was postponed.*
- *NBA,*
- *NCAA postponed*
- *NFL canceled*

In Turkey, football matches have continued, handball and volleyball leagues, has been canceled. Leagues in France, Argentina, and Netherlands has been canceled. The starting dates of the soccer matches were as follows: May 16 in Germany, June 11-12 in Turkey, Italy, Spain, June 17 in UK. Rules to be observed by each team in Turkey has been declared an ordinance dated May 29. Turkey Football Federation decided the matches of Super League and Turkey Cup to be played without spectators, to be taken a physician in all competitions, to measure the heat of athletes, technical staff and everybody before entering the stadium. Turkey Football Federation decided the matches of Super League and Turkey Cup to be played without spectators, to be taken

a physician in all competitions, to measure the heat of athletes, technical staff and everybody before entering the stadium. In addition, media members were required to take COVID-19 test two days before the competitions. In football, clubs have made it necessary to have COVID-19 PCR test and Antibody test done in all laboratories accredited by the Ministry of Health and the Ministry of Health and 2 days before each competition, for all footballers, technical and support teams, and all the staff who will work in match operations (TFF, 2020). Football seems to be returning in mid-June, but this start is far from compensating for damage to the industry. It is seen that sponsors and advertisers are likely to get back what they pay to these organizations or to give up agreements or go for a discount. Likewise, the time and schedule on the calendar that reduces the excitement of leagues make it utopian for publishers to gain as much as they expect. Playing matches in front of empty stands also triggers negativity on the sector. Empty bleachers mean no stadium revenues, which will cause financial damage to the teams.

Performance-based contracts, one-per-competition agreements, championship or victory premiums for canceled leagues, and clubs' headache for the second half of this year seem to be on the agenda for several years. Although many clubs have reconsidered their existing contracts with their players, agreements for ordinary situations seem to remain valid for star players. FIFA (2020) informed that the decision is in the local federations, but declared that wages could be restructured provided that an agreement was reached between the parties, and some countries such as Germany, Spain and the UK prevented cancellation, termination or reduction requests in contracts due to the pandemic. There are no force majeure provisions in standard professional player contracts in the UK. In Britain, force majeure is a contractual right and therefore civil law cannot be applied as in jurisdictions (Colucci et al., 2020: 5). In Italy, which is one of the countries most affected by the pandemic process, it has decided that clubs can restructure their contracts for force majeure. The global value of the sports industry has increased by 45% in four years after 2011; It was $ 471 billion in 2018 (Hall, 2020); Before COVID-19, the growth of the sports industry was quite high. As of the end of 2019, the global value of the industry is estimated to be 756 billion dollars annually (Bas et al., 2020). It is suggested that with the COVID-19 process, the sports value chain will have a significant reduction in each section. Broadcasting (sale of media rights), commercial (sponsorship and advertising partnerships) and matchday revenues (ticketing and entertainment) in professional sports leagues are expected in the first place among the most affected by this contraction. The global value of sports broadcasting rights is around $ 50 billion. The five-year revenues of major sports leagues are shown below (Hall, 2020).

Chart 1. Income Distribution of Major Sports Leagues (5-year)



Source: *(Hall, 2020)*

The leagues given in the chart above have viewers all over the world and the market for them is the whole world. The NBA's nine-year TV deal is worth $ 24 billion, while the English Premier League has been sold for about $ 6 billion last year for three years. Major League Baseball (MLB) has made an agreement over $ 5 billion for seven years (Hall, 2020). Because of COVID-19, it is known that leagues are unable to fulfill their commitments to publishers and have difficulties in transferring revenues to clubs (Hall, 2020), suggesting that this will prove a dramatic drop in the sports industry.

Since the spread of COVID-19 to Europe, five major leagues have lost 4.5 billion USD. The British Premier League's revenue loss in the publishing industry is estimated at about $ 1.2 billion. Not only the teams, leagues and athletes but also many companies and brands that match themselves with sports in order to promote their products to the sports audience (Chiliz, 2020). If leagues are canceled, these revenues are non-existent, and targeted sales amounts are not likely to be reached for deferred leagues.

In Turkey, football super league to set a value of $ 410 million; The cessation of all these leagues created the possibility that these revenues could not be obtained. Considering that the leagues will start again, interest in competition in unusual races cannot be expected to return to the level before March 16. The expected broadcast and ads revenues of broadcasting companies which are supposed to come from soccer matches, will probably come because of summertime soccer matches, canceled subscriptions, and matches played without spectators.

After conveying the situation regarding the current state of the sports industry, it will be appropriate to take a brief look at some steps taken by sports stakeholders. The sector started to look for new ways to engage consumers from the moment the epidemic first started and was in an effort to evaluate the increase in media consumption as an opportunity. In the absence of live match

broadcasts, sports broadcasters showed interest in electronic sports (e-sports) alongside nostalgia competition broadcasts (Hall, 2020). Sports broadcasters, which organize tournaments for alternative esports formats and publish the competitions of sports celebrities, pursued alternative income models (Bunyan and Maitland, 2020: 13). In this context, sports broadcasters, who are heading for video game competitions and organizing, went on to create leagues among professional players.

Media and Entertainment Sector After Pandemic

It is not known exactly when the effects of COVID-19 pandemic will decrease to zero and under what conditions normalization will begin. As of March 10, 2020, measures to restrict social life have been lifted in a controlled manner starting from Germany. In Turkey, the partial normalization calendar started as of June 01, 2020, and controlled social life started to be implemented as of this date. In the new situation formulated as social distance, mask, and cleansing, it was decided to keep some of the entertainment venues open until 22.00; The period was extended to 24.00 on 09 June 2020. For the opening of cinema and theater halls, the date of July 1 has been determined, and they have to provide service depending on the social distance rule.

As part of the partial normalization decision taken after the pandemic's spreading and influence slowed down, curfew restrictions were lifted, and entertainment venues were given conditional freedom. This decision is important in that it constitutes the beginning of the normalization of the sector, although it does not create the expected interest in the entertainment industry. It seems very difficult to make inferences about the time it takes the industry to return before 10 March 2020. The losses of the sector during this period is a separate study subject. The IMF forecast for a shrinkage in the global economy after the COVID-19 outbreak is suggestive for reflections in the entertainment industry.

The delay caused by the late opening of the season in tourism will be reflected negatively on the entertainment industry depending on the location and some film production delays on the film industry. It means that the films will be released later than planned to stop during social restrictions, and a decrease in box office revenues is inevitable. The postponement of the beginning of cinema productions, which may affect the future growth rates of the sector, also indicates its uncertainty in the entertainment sector (Bunyan and Maitland, 2020: 9). From the pandemic to normal life, it will not be easy to make production sets, living spaces, theaters and theme parks physically and psychologically safe for employees and consumers. While the media and entertainment sectors have some advantages compared to other sectors in overcoming the crises caused by the COVID-19 pandemic, sectoral shrinkage and job losses are inevitable (Deloitte, 2020b). The stagnation envisaged by Deloitte for the first quarter of 2020 also reveals the chances of a 30 percent financial crisis. Aftershocks will continue to have negative effects on films, live shows, holidays, and even

subscription services even after employers hired some people who lost their jobs (Deloitte, 2020b). Despite these negative predictions, the IMF announced that it expects a recovery in 2021 (Georgieva, 2020). Regardless of the question of when the effects of the crisis will dissipate, the crisis has revealed a situation defined as the convergence in the entertainment industry and expressed the unity of digital technologies that make up the media.

With the new technical developments, the borders between the entertainment industry and technology and especially the media have started to disappear; entertainment has become more convergent to mobile technologies and digital devices. The COVID-19 process greatly increased convergence and made it necessary to further integrate the structure between technology and sectors. The increase in the number of live broadcasts on social platforms during the pandemic process and the instant delivery of many entertainment activities to these viewers through these platforms is an important example in terms of showing the direction of media, technology and entertainment interaction. It is clear that people will turn to Netflix-style demand-based content platforms rather than going to the cinema in the next period. This will increase the demand for content production in cinema more, and short-length production will become more attractive. According to Deloitte's report, Turkey's new generation of Internet TV platforms such as Netflix and BLUTV with the second week of March has been demonstrated 50% more than the interests of consumers. The tempo, which increased from the first week of March, continued strongly in the 3rd and 4th weeks; it has been suggested that this trend will continue in the future. These platforms were able to keep up with the increasing demand with their aggressive campaigns and new content and they formed a habit for the future. The pandemic process, which triggers the change of media consumption habits and consumption patterns, makes the use of digital platforms and structural changes in traditional physical media and advertising models inevitable.

The media industry has proven to be highly skilled in adapting to new digital platforms, subscription models and content production (Bunyan and Maitland, 2020: 4). As such, the media entertainment industry has gained new skills in creating new revenue items and implementing convergent entertainment services. The opportunities and threats for the media and entertainment sector are outlined below after the crisis.

Opportunities

A broader change in social behavior is expected after the COVID-19 pandemic. As discussed above, as unemployment and financial concerns increase, a change in people's entertainment spending is expected (Booker and MacBride, 2020: 8). The pandemic process mediated the learning of situations such as planning contracts in the entertainment industry, considering potential shocks and disasters, and making disaster plans. Other opportunities can be listed as follows:

- *The pandemic process has revealed the importance of the insurance obligation in the entertainment industry, creating an opportunity for the insurance industry. Canceling the tennis championship for the first time in its history, Wimbledon's All England Club has managed to reduce the effects of the COVID-19 crisis by paying for pandemic insurance for more than a decade (Deloitte, 2020b).*
- *Although mobile technologies and their software belong to the transnational property structure, the pandemic process has shown to local companies that you can obtain economic returns through these platforms. It has also demonstrated the need for countries to take advantage of these platforms or to create their own technologies that they can use independently.*
- *It demonstrated to entrepreneurs that mobile products can be marketed to almost anywhere in the world, including entertainment.*
- *Emphasis was placed on the convergence of entertainment with technology and media; this created an opportunity for local content producers to reach global markets.*
- *For the entertainment industry, the crisis itself can be an input to productions. In addition to artistic and design results, COVID-19 can be adopted as an idea subject in scenario.*
- *The importance of personalized entertainment has become more prominent with the COVID-19 pandemic, and it has been proven that content providers focus on individual preferences, especially in media-related entertainment. This acquisition created more content requirements and the potential to create employment growth in the media and entertainment industry came to mind. Also, the need for the diversification of integrated organizations that produce and distribute content has emerged, as in the case of Netflix.*
- *The recreation of home entertainment opportunities, which the young generation forgot, was remembered again, and it allowed the return of family entertainment at home.*
- *Compulsory times at home increased the traditional television audience and it was understood the importance of investing more in television productions. In addition, it has been proved that the problem of trust will not disappear unless the information provided from the new media is supported by the traditional. In other words, despite the full prevalence of the new, the effect of television has not been lost.*
- *It taught live event organizers and ticket companies that they must have operational flexibility for unexpected situations. Some companies are motivated to make technology transformation plans and speed up their partnerships. It compelled others to business models to provide a strong transition to direct consumer distribution and sales (Deloitte, 2020b). It provided an opportunity to gain experience to platforms where all media and entertainment initiatives can be made online. Entertainment venues and entertainment organizations have discovered new ways of communication and interaction and have taken steps to develop strategies to build strong and more direct relationships with consumers.*

- *The pandemic process replaces digital entertainment with real entertainment. The new social order has convinced the consumer to pay the price of online entertainment, home based subscription, through new media. Those who can manage these platforms in the new entertainment system will gain competitive advantage. This situation, which enables the audience to have fun at lower prices, means the transformation of entertainment at the global level.*
- *An increase in paid television subscriptions and the emergence of competition in this area will be seen as inevitable. In the new understanding of entertainment, the creators of high quality and different content will be at the forefront, which can gather other sectors (cinema, game, television, etc.) under one roof, offer more content to the viewer and select them.*
- *The pandemic process has created an opportunity for those who have entertainment and program stock; demonstrated the importance of long-term projection in terms of broadcasting. In this sense, those who plan the pre-pandemic broadcast in the television entertainment industry, such as Survivor, and those who have program stocks in their hands, such as Güldür Güldür, have shown that they can stand out in the competition and turn the crisis into an opportunity. Keeping in mind the pre-unpredictability feature of the crisis periods, and the necessity to create an action plan for every situation has emerged.*
- *The pandemic crisis could mean a renewed industry and provided the opportunity to be motivated to dream and create more in the entertainment industry (Deloitte, 2020b).*
- *Companies had the opportunity to implement flexible working arrangements and to minimize site-based work (Deloitte, 2020b). It has shown the necessity of the areas that are closely connected with traditional media, such as theater, to convergent structure.*
- *In media-related entertainment, it has become necessary to move away from traditional standards in terms of section length and number. Freeing creators and giving them more flexibility in telling their stories can develop good long-term relationships and produce more creative content (Deloitte, 2020b).*
- *It has emerged that the sponsorship and advertising structures of the entertainment industry should change; has revealed the necessity of selling, trading and pricing of ad units across platforms with more flexibility and efficiency (Accenture, 2020).*
- *Although the film industry will be negatively affected by the pandemic in the short term, more content demands in the future may create long-term growth opportunities in the industry.*

Threats

Partial normalization period was entered with social distance conditional measures. Reminding that the biggest asset is health, this process has created some threats on the entertainment industry. At the very beginning is the situation where the completely normalization process creates a bias

against entertainment venues. The fear of exposure to the virus, keeping people away from entertainment venues may delay the normalization of the industry. It appears that the biggest threat of the crisis will be on media and entertainment businesses at the local level and those who cannot keep up with digital transformation. Possible threats to the entertainment industry can be listed as follows:

- *The necessity to comply with the developing technology and social distance rule rationalized people to stay away from the real, and entertainment like education became more digital. Although there are virtual entertainment possibilities with the existing possibilities, it will manifest itself in the near future as people become increasingly dependent on augmented reality and virtual reality technologies. Although this situation is considered as an opportunity for technology producers, it is inevitable that technology investments create a resource problem and result in increasing and secondaryization of real. New media spending, which has become an obligatory increase and investment in technology, will push the entertainment industry to the control of global powers. This new situation, which will allow the technology holders to become stronger, will result in greater disruption of the balance between countries and the dependence of peripheral countries on the central countries.*
- *The rise of Netlix-style platforms will mean, in the long run, the abolition of social boundaries, the elimination of religious rules, and the reduction of the influence of values and saints on society.*
- *The fact that digital entertainment is more sensitive to individual preferences in the pandemic process and the positioning of real entertainment in the social context poses certain risks for the economy and the political economy of the media. In order to adapt to new advertising environments, advertising agencies need to fall under the new costs. In addition, the low number of companies in the new media advertising in the short term will further strengthen the international agencies serving at the global level. Most media outlets capable of adapting to the new situation are positioned at the top of the mind globally, which also means that states charge less tax. Reduced advertising revenues and advertising generating less income will result in less tax in the economy and entertainment sector. The entertainment and the virtualization of entertainment will create indirect and negative consequences on other sectors related to entertainment. The new situation that will lead the entertainment sector to evolve from local to global will further spread electronic colonialism and dependence on digital platforms will increase. In the current situation, considering the transnational ownership of all the digital platforms at the social level, especially for the educational channels, the risk and threat level of the new conditions becomes more understandable.*
- *The fact that people see entertainment as a secondary need and give priority to basic needs will create problems for the sector.*
- *The need to produce more content in the entertainment industry and easier content production will raise the problem of quality.*

- *Difficult control over content production associated with digital technologies can corrupt values and influence them. It will also facilitate the spread of content that destroys established rules.*
- *Instead of traditional entertainment culture, space-independent entertainment will be more involved in social life, and this will result in more traditional face-to-face communication being disabled.*
- *The pandemic process has created significant use of mobile data worldwide. Especially the periods when curfews have made the orientation towards mobile technologies and data use challenging capacities. In the new situation, it seems inevitable that technology investments, especially bandwidths, will be an important burden on the country's budgets. The necessity of bandwidth investments will become more visible, especially with the introduction of 5G, which is expected to make the convergence between the media and entertainment industry more prominent.*

Sports Sector After Pandemic

Currently, there is a halt in the sports industry, but stagnation is expected to continue for an indefinite period of time. Although return dates have been announced for some sports organizations and leagues, a decrease in the industry's income level and a sectoral contraction seem to be inevitable. It seems that the impact of out-of-home expenses, especially subscription fees for watching sports broadcasts, will negatively affect the sports industry.

The COVID-19 outbreak increased the digitization of the sport that started before; digital use has become more prominent for situations that can prevent the implementation of group sports on a professional and individual basis (Evans et al., 2020: 90). Deloitte (2020a) argues that after the pandemic process, 50% economic contraction and 30% crisis are expected in the sports sector. Narrowing in half will naturally lead to a decrease in the share of all stakeholders.

Although the leagues that have been postponed and restarted in many countries have partial compensations, broadcasting and sponsorship revenues will emerge as an important problem area between the parties for the countries that decide not to complete the leagues. Considering that it will be decided to save money from sponsorship investments in all kinds of economic recession, it is inevitable to experience a big decrease in the number of sports sponsors. Sports is a multi-stakeholder organization industry and is mainly used for airlines, tourism-travel companies, etc. sponsors will be able to take advantage of the force majeure items in their contracts when they withdraw from the sports industry, citing their losses, which will increase sectoral contraction (Chiliz, 2020). On the other hand, the possibility of sports clubs paying high amounts in the future, as well as in the current conditions, has decreased. With regard to COVID-19, it seems that the prediction "nothing will be the same as before" can be said accurately for sports contracts. Based on the

assumption that the sector will shrink, the first effect is expected to occur in player contracts. Considering that the clubs have difficulty in tax payments due to their obligations arising from their past contracts, it seems inevitable to have regulatory requests from governments in the short term. Especially when it comes to football clubs, UEFA's Financial Fair Play obligations and rules regarding the acquisition of club licenses and criteria regarding international regulations need to be urgently stretched.

For sports organizations that are decided to be played again, it is imperative to organize dressing and shower facilities in accordance with the social distance as much as possible, and to take organizational measures to increase personal distance at the time of competition (Muñoz and Meyer, 2020: 85). Governments and health-related organizations should support sports federations, clubs and organizations around the world on safety, health, workforce and future sports events and related safe working conditions. These organizations can provide guidance on international standards and protocols (Bas et al., 2020). The pandemic process in the sports industry, where it is in the field of entertainment, required the evolution of digital; It appears to have resulted in the re-shuffling of cards in sports.

Opportunities

It is seen that it is time to talk about e-sports in the field of sports. The absence of "real" sports has created an opportunity for virtual technologies to grow. E-sports, as a field that has grown greatly in recent years, seems to attract more people and organizations after the pandemic. An alternative way for clubs and famous names to interact with their fans and create new income items has been virtual sports games during the crisis. E-sports eliminates the necessity of fans to be together physically; it allows players to share their games from digital and traditional media. The opportunity of sports broadcasters to present their e-sports competitions live at more affordable costs instead of transferring old content has emerged with the pandemic process. E-sports and online video games, with the increase in demand and watching numbers (Hall, 2020), the excitement continues and it is an alternative for the times without sports.

- *It provided an opportunity to ban some habits such as spitting on the field, which are both culturally unpleasant and create negative conditions on health and to be eliminated after pandemic.*
- *It allowed the sector to make a self-criticism and revealed the necessity of sports managers to be open and innovative in the new sports order. It has created a motivation for the management in terms of interaction with the virtual world. In this regard, it was understood that the management of sports clubs should be carried out by professionals.*
- *The COVID-19 example revealed the necessity for the sports industry to work in collaboration with other fields and professionals in these fields. Likewise, it has demonstrated the importance of using the popularity of sports and players*

for social reflexes. The use of famous athletes in the transfer of measures for hand washing and social distance or other measures are examples that show the importance of athletes to manage social opinions.

- *It revealed the necessity for clubs to have an emergency action plan for extraordinary situations; demonstrated the need to expand the scope of unusual situations in contracting.*
- *It showed that for extraordinary situations, sports clubs and the sports industry should have a plan B, it is imperative to maintain relations with other stakeholders and to establish a reserve fund system for the economic sustainability of the clubs, and to create a common fund for extraordinary situations. These applications, which can provide an opportunity for protection from crises for possible risks, have revealed the importance of professional and solidarity organizations for clubs and players in cases of cancellation similar to COVID-19.*
- *The necessity of preventing the extravagance of sports clubs and turning to infrastructure with their own assets has emerged; paved the way for minimizing foreign dependency in sports.*
- *It has revealed that clubs compete in the virtual world and that they should focus on virtual channels professionally in order to retain fans. It has shown that alternative ways are needed to ensure interaction and supporters' loyalty.*
- *It ensured that the transfer prices, which increased excessively, were reduced to rational dimensions. This situation also showed that it is important to focus on quality at affordable costs for clubs. As in the past, the process of making a transfer with the aim of dry competition motivation and throwing the opponent should end and revealed the importance of managing with cost effective policies.*
- *It allowed sports clubs that are in difficult economic conditions to reorganize their contracts; it has saved the clubs time for projections for the coming years.*

Threats

Assessing the negative effects of COVID-19 on the sports industry at present seems problematic in terms of achieving accurate results. Although multiple effects on the sports industry are expected to occur in the long term, the biggest loss will be on broadcasting and sponsorship. According to the commitments of broadcasters, the size of the threat of revenue loss will be determined. On the other hand, the reflection of the loss of revenue resulting from canceled broadcast subscriptions to professional clubs seems to be inevitable. Possible threats for the sports industry can be listed as follows:

- The sponsors' recovery of the season that could not be played in the canceled leagues, and the loss of approximately ¼ of the revenues from the audience for both canceled and postponed leagues will create obstacles for the sports clubs to invest in amateur branches. The decisions of professional clubs to withdraw from unpopular branches will pose a threat to the social dimension of sports.

- The fact that the matches are played without an audience in the 2020-2021 season can be considered as a sign that the sector will shrink further. Although the sports industry has begun to return to their own resources in the process called the new normal, it is seen that the clubs still continue to spend high costs. This situation and matches without spectators can trigger developments that may result in the bankruptcy of many clubs in the future.
- Customers who are playing sports at an individual level will be demotive due to the fear of virus returning after the pandemic, this will impair the financial status of sports businesses. The necessity to close sports businesses that have financial difficulties will decrease the number of businesses in the sector and increase the price of individual sports opportunities. The threat of going to sports for crowded facilities can also reduce the interest in individual sports in the long run.
- Even when the period during which the matches will be played with spectators is allowed, it may be difficult for the clubs to attract all the fans to the field in mass. In amateur branches and teams with a lower audience profile, it may take a longer time for the audience to return to space than others. This will mean that problems arise both economically and socially.
- As in the case of Turkey, the club pays the debt with new debt, it is imperative that they create outsourcing. Assuming clubs that do not create this resource have also come to life with the stretched combat criteria, they may arise as a result of more borrowing.
- Considering the sponsorship structure of the large leagues and the number of tracks that it has in the global market, the chance of competition between the big leagues and others decreases against the others.
- Because teams in these more professionally managed leagues are likely to come out of the effects of the pandemic process faster. This is likely to result in championships not going to other countries for a long time.
- *Continuing leagues can form the second wave in the pandemic, which may mean that interest in sports has been lost for a long time*.

Conclusion

The pandemic processes that express global outbreaks are situations that have individual, social and global effects. Epidemic periods that create difficulties in the field of health and economy at the beginning can also lead to negative results on the arts, culture, sports, media, and entertainment fields of the countries. In COVID-19, which negatively affects all world economies and economic dynamics, it stopped all social activities in groups all over the world and made it necessary to change existing individual habits and social rituals. The entertainment and sports activities, which are carried out collectively rather than individually, were the areas where the first ban decision was made

in the fight against the pandemic. 'COVID-19 pandemic, which is stated to be a very important measure to protect social distance and personal cleanliness, has also created media effects. Contrary to those who claim that the power of traditional mass media is weakened, the pandemic process has shown that the effects of these tools are still at high levels, revealing the necessity to work in interaction with the new media. On the other hand, the crisis period, which created the result of digitalization in every social sphere, was the trigger for increasing the level of technological convergence in entertainment, sports and media.

The pandemic process paved the way for more inclination to distance and digital media, entertainment and sports. New entertainment, new social relationship patterns and new sports organizations seem to be spreading globally in the process and until the time of complete normalization. The post-pandemic process, which is expected to emerge as a new era in the entertainment and sports industry, will reveal new values and value chains. This new structure, where entertainment in all demographic dimensions evolves virtual instead of real, contains opportunities and threats in itself. From a media perspective, it is seen that platforms that provide content on demand will be the most winner of the process. It has been seen that most media companies do not have an emergency action plan for crisis situations, and the emerging content demands could not be met by most businesses. Traditional television channels, which have to constantly broadcast focused on the subject of pandemics, could not offer alternative solutions in media-mediated entertainment other than nostalgia generations, causing the entertainment to be directed more towards digital.

Prior to the pandemic process, studies have demonstrated that confidence in new media and digital technologies is low. It has been suggested that people approach the campaigns and the information conveyed through these platforms with suspicion and they need to confirm the accuracy of the relevant information. The pandemic process has emerged as a period in which first-hand information is spread over digital platforms, and the statements of state administrators, who are spokespersons, on social media. The pandemic process, where even epidemic developments and controls are carried out through new technologies, brought up electronic-based alternatives in entertainment and sports on a global level. The crisis period, where real entertainment evolved into the virtual space and the game industry started to be the main actor in entertainment, revealed opportunities and threats. In this study, the COVID-19 pandemic was analyzed between March 2020 and June 2020, and future inferences are presented based on the current state of the ever-changing data. COVID-19 pandemic, the initiator of a new era in entertainment and sports, especially focused on cost-effective policies in sports, adapting to digital in entertainment and producing optional content in the media. At the organizational level, the return of the sports industry to its own resources, the management of sports clubs in a cost-effective and strategic perspective, the evolution of the classical management approach

of the past to professional management seem to be the sport's implications. The sports ecosystem should analyze the pandemic process well and make action plans for possible crisis situations in the future. In addition to new and innovative solutions, creative alternatives are issues that the sports industry should consider. As an alternative, e-sports seems to be the first alternative that comes to mind for the sector. Before such situations, spreading e-sports seems to be a necessity to attract fans of traditional sports clubs to this area.

The entertainment sector is one of the most affected areas after the health sector. This sector, whose activities were stopped for the first time in pandemics, seems to be trying to return to normal for a long time. In particular, it seems that it will take time to prepare the entertainment system based on the location for new social conditions both physically and mentally. It is seen that the independent entertainment of the place has started to come to life through electronic means. In the new period, entertainment enterprises that can adapt entertainment to their own services will be able to get out of the crisis by learning and strengthening when they turn their content virtually into income.

References

Accenture (2020). Connecting, informing, supporting navigating the human and business impact of COVID-19 in the communications & media industries. https://www.accenture.com/_acnmedia/PDF-121/Accenture-COVID19-Communications-and-Media-Industry-Report-4.pdf (08.06.2020)

Açıkgöz, Ö. ve Günay, A. (2020). The early impact of the COVID-19 pandemic on the global and Turkish economy. Turkish Journal of Medical Sciences, 50;520-526. doi:10.3906/sag-2004-6

Bas, D., Martin, M., Pollack, C. ve Venne, R. (2020). The impact of COVID-19 on sport, physical activity and well-being and its effects on social development. *United Nations Department of Economic and Social Affairs.*

Booker, I. ve MacBride, J. (2020). The impact of the coronavirus on the entertainment insurance industry—preliminary issues to consider in the adjustment of claims. *ZELLE LLP* https://www.jdsupra.com/legalnews/the-impact-of-the-coronavirus-on-the-10849/ (08.06.2020)

Bunyan, D. ve Maitland, M. (2020). Likely impact of COVID-19 on the UK media industry. https://www.pwc.co.uk/covid-19/pwc-entertainment-media-covid-19-viewpoints.pdf (08.06.2020)

Chiliz (2020). COVID19 – spor endüstrisi için hem tehdit hem fırsat. https://www.chiliz.com/tr/covid19-spor-endustrisi-icin-hem-tehdit-hem-firsat/ (29.05.2020)

Colucci, M., Rapacciuolo, D., Sethna, R. ve Cottrell, S. (2020). A comparative analysis of the measures adopted in 25 jurisdictions around the world to counter the effects of COVID-19 on the football industry. *Coronavirus and Its Impact on Football A Sports Law And Policy Centre And Lawinsport Joint Survey* (Eds: M. Colucci, S. Cottrell ve R. Sethna), SLPC. 1-11.

Deloitte (2020a). COVID-19 outlook for the US sports industry. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-covid-19-outlook-us-sports-sector-may-2020.pdf (21.05.2020)

Deloitte (2020b). COVID-19 outlook for the US media and entertainment industry. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-covid-19-outlook-us-me-sector-may-2020.pdf (10.06.2020)

Deloitte Türkiye (2020). Küresel COVID-19 Salgınının Türkiye'de farklı kategorilere etkileri. file:///C:/Users/Dell-5590/Downloads/kuresel-covid-19-salgininin-turkiyede-farkli-kategorilere-etkileri.pdf

Evans, A. B., Blackwell, J., Dolan, P., Fahlen, J., Hoekman, R., Lenneis, V., McNarry, G., Smith, M. ve Wilcock, L. (2020). Sport in the face of the COVID-19 pandemic: towards an agenda for research in the sociology of sport. *European Journal for Sport and Society, 17*(2), 85-95.

FIFA (2020). COVID-19 Football Regulatory Issues. https://img.fifa.com/image/upload/zyqtt4bxgupp6pshcrtg.pdf (08.06.2020)

Georgieva, K. (2020). COVID-19 krizi Büyük Bunalım'dan da ağır. https://www.ntv.com.tr/ekonomi/imf-baskani-georgieva-covid-19-krizi-buyuk-bunalimdan-da-agir,nxVQSvcLF02Nd24aPd-sYw (11.06.2020)

Gössling, S., Scott, D. ve Hall, M. (2020). Pandemics, tourism and global change: a rapid assessment of COVID-19. *Journal of Sustainable Tourism*, https://doi.org/10.1080/09669582.2020.1758708

Hall, S. (2020). This is how COVID-19 is affecting the world of sports. Erişim adresi, www.weforum.org/agenda/2020/04/sports-covid19-coronavirüs-excersise-specators-mediacoverage/

Mulligan, M. (2020). How COVID-19 will affect the media industries. https://www.midiaresearch.com/blog/how-covid-19-will-affect-the-media-industries/ (01.06.2020)

Muñoz, M.D. ve Meyer, T. (2020). Infectious diseases and football – lessons not only from COVID-19. *Science and Medicine in Football*, 4:2, 85-86, DOI: 10.1080/24733938.2020.1749422

Ozili, P. ve Arun, T. (2020). Spillover of COVID-19: Impact on the global economy. *SSRN Electronic Journal*, DOI: 10.2139/ssrn.3562570 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3562570 (26.05.2020)

TFF (2020). COVID-19 salgını nedeniyle ara verilen Süper Lig, TFF 1. Lig ve Ziraat Türkiye Kupası müsabakalarına ilişkin talimat. https://www.tff.org/Resources/TFF/Documents/TALIMATLAR/COVID-19-Salgini-Nedeniyle-Ara-Verilen-Super-Lig-TFF-1-Lig-ve-ZTK-Musabakalar%C4%B1na-%C4%B0liskin-Talimat.pdf, (30.05.2020)

Yıldırım, E. (2020). Sahipsizliğin İdeolojisi Netflix Toplumu, https://www.star.com.tr/acik-gorus/sahipsizligin-ideolojisi-netflix-toplumu-haber-1568717/ (29.08.2020).

Yorulmaz, R. ve Kaptan, S. (2020). Kovid-19 ile mücadele sürecinde maliye politikalarının rolü. *ULİSA12*¸ AYBÜ Uluslararası İlişkiler ve Stratejik Araştırmalar (ULİSA) Enstitüsü, 24-30.


KÜRESEL SALGININ ANATOMİSİ
İNSAN ve TOPLUMUN GELECEĞİ
KÜRESEL SALGININ ANATOMİSİ
İNSAN ve TOPLUMUN GELECEĞİ
TÜBA
TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES
Editörler
Prof. Dr. Muzaffer Şeker
Prof. Dr. Ali Özer
Dr. Cem Korkut

TÜBA

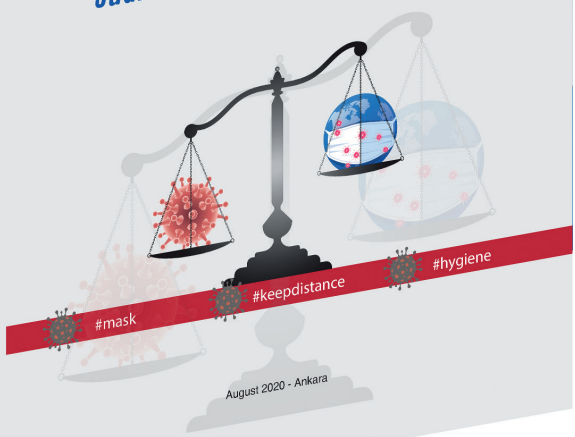
Türkiye Bilimler Akademisi

Turkish Academy of Sciences

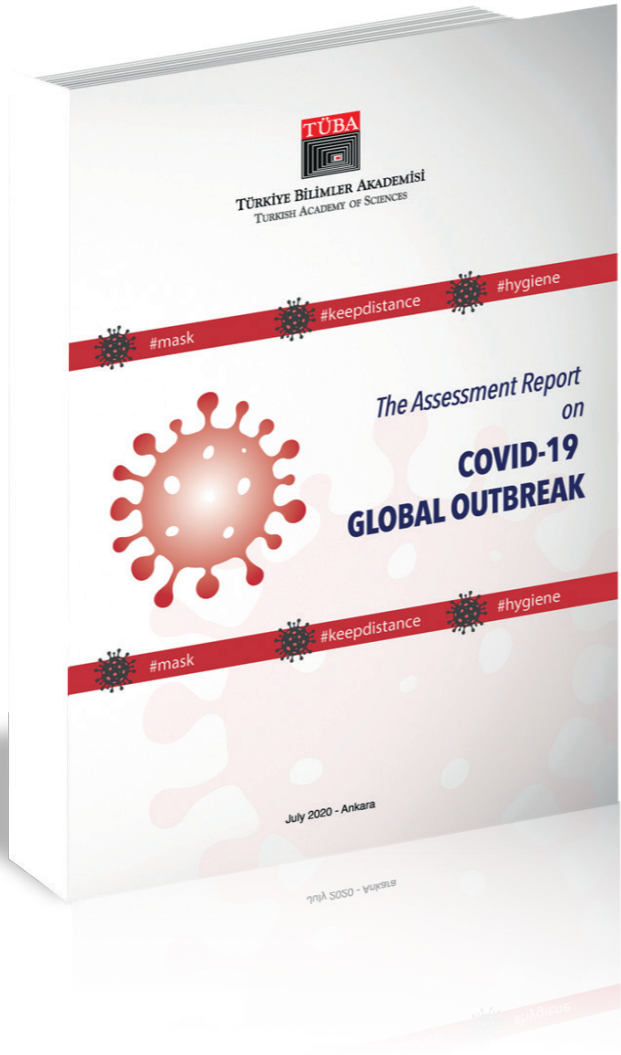
TÜBA COVID–19 GLOBAL OUTBREAK

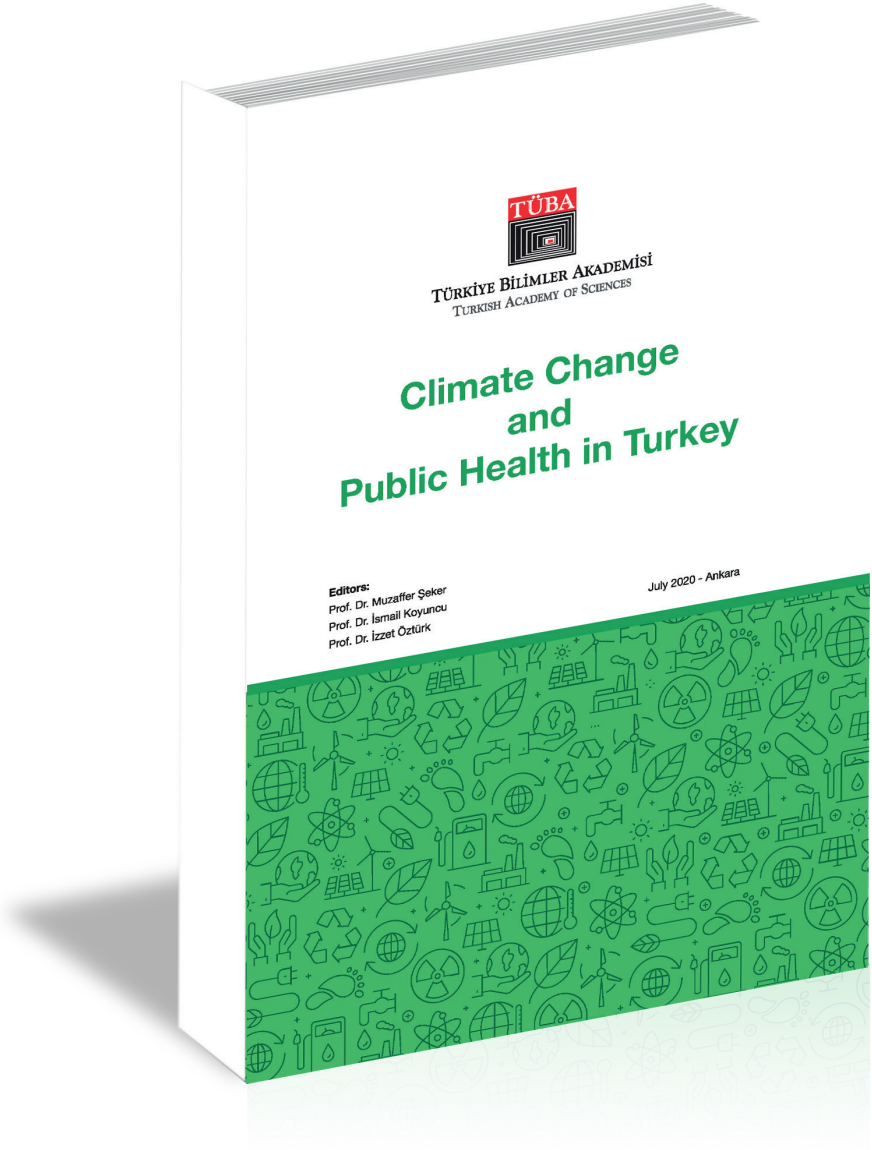
Report on

Judicial Changes and Interactions



August 2020 - Ankara


TÜBA
TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES
#mask
#keepdistance
#hygiene
The Assessment Report
on
COVID-19
GLOBAL OUTBREAK
#mask
#keepdistance
#hygiene
July 2020 - Ankara


TÜBA
TÜRKİYE BİLİMLER AKADEMİSİ
TURKISH ACADEMY OF SCIENCES
Climate Change
and
Public Health in Turkey
Editors:
Prof. Dr. Muzaffer Şeker
Prof. Dr. İsmail Koyuncu
Prof. Dr. İzzet Öztürk
July 2020 - Ankara

The most important difference of the COVID-19 pandemic from past pandemics is the multiplier effect of the speed of transportation and communication in the spread of the pandemic and the implementation of the measures taken. The reflections of the social change created by the global outbreak should be read well when a healthy analysis of past pandemic periods is made, and their differences and impact areas are evaluated. Determining post-pandemic period strategies based on historical evaluation will make it possible to perform the normalization process in a healthier way.

TÜBA
Türkiye Bilimler Akademisi
Turkish Academy of Sciences

ISBN: 978-605-2249-53-6