Tourism Innovation in the Digital Era

New Perspectives in Tourism and Hospitality Management

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Tourism Innovation in the Digital Era: Big Data, AI and Technological Transformation

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INVESTOR IN PEOPLE

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Preface

Digitalization and service automation are already visible in the tourism industry, raising questions on their wider impact on the industry and the holiday-experience. Moreover, digitalization and artificial intelligence (AI) are increasingly influencing modes of travel planning, exploration of new destinations, promotion of them and also the experience of travelling through novel regions. New technologies are changing, and will continue to change, the face of tourism in the years ahead. Numerous challenges are created, to which countries, destinations and especially business entities need to find a response, or a strong wave of digitalization will erase them from the market. At the same time, opportunities are being created that should be exploited. Numerous application examples and cases of those technologies across the entire holiday value chain and their diffusion drivers are evident. According to the World Economic Forum's (2017) latest report: 'The greatest societal impact may be the effect of digital transformation on the travel workforce, which could represent as many as one in every 11 jobs worldwide by 2025. Intelligent automation will change the nature of some travel jobs and eradicate others altogether'.

Cognitive abilities and systems-related skills are becoming increasingly vital, within a social-skill-focused tourism education and training. Generations of tourists born after 1980, and especially those who will be coming to the fore in the next 10 years, will have radically different expectations and requirements in relation to today's tourists. The sharing economy and the experience economy strongly influence the creation of new business models in tourism. The integration of mobile technologies into hotel business processes, the ability to inspect business and adapt to new conditions in real time and digital interaction with guests will be crucial for achieving competitiveness and survival in the increasingly demanding international market. Digitalization and AI are essential to support the improvement and rationalization of business processes and infrastructures and to enhance the competitive advantage. Many low-income economies can potentially benefit from this digital transformation and others are at risk of being left behind if they fail to embrace this moment.

This book *Tourism Innovation in the Digital Era. Big Data, AI and Technological Transformation* aims to provide a comprehensive collection of chapters encouraging discussion on the organizational impacts of digitalization and AI in tourism and hospitality. Digital technologies and platforms are disrupting the way the hospitality sector operates from end-to-end. E-platforms offer global access to consumers and allow service providers to enhance the development of the hospitality industry and its

competitive standards. Particularly, this book deals with research into new economic phenomena and the response of the hospitality industry as well as other touristic companies to the increasingly demanding needs of modern generations of consumers in tourism. Digital technologies have demonstrated the potential to give the hospitality industry direct access to a global market and this industry is vital to the growth of most developing economies, with the potential to promote entrepreneurship and innovation.

Structure of the Book

This book *Tourism Innovation in the Digital Era. Big Data, AI and Technological Transformation* is the result of reflections involving research studies of different nationalities. This book contains 9 chapters written by 22 authors located in 10 different countries and affiliated with 18 different universities.

The first chapter titled 'The Important of Big Data Analysis: Developing Neuromarketing in Tourism Industry' is written by Norhidayah Azman, Ahmad Albattat and Marco Valeri. The aim of this chapter is to investigate big data analysis, the value of big data analysis and how the use of big data may improve the tourism industry by allowing the creation of neuromarketing approaches to increase marketing strategies for tourism companies. The process of finding trends, patterns and correlations in enormous amounts of unstructured data in order to assist in making choices that are influenced by the data is referred to as 'big data analytics'. These processes use conventional methods of statistical analysis, such as clustering and regression, and apply them to more extensive datasets with the assistance of contemporary technologies. The phrase 'big data' has been a popular buzzword ever since the early years of the new millennium, when advances in computer software and hardware made it possible for businesses to handle enormous amounts of unstructured data. Even while the tourism industry has a plethora of useful big data, the fact that it exists does not always imply that it can be used effectively. On the other hand, the term 'neuromarketing' refers to the measurement of physiological and brain signals in order to gain insight into the motives, preferences and decisions of consumers. This information can then be used to inform creative advertising, the development of new products, pricing and other aspects of marketing. There is a relationship between big data and neuromarketing due to the fact that stakeholders in the tourism industry need to be acquainted with and comprehend the vast amounts of data that are available in the company. In addition, participants in the tourist industry need to have an understanding of how to make use of big data by using the appropriate technologies that provide them the ability to derive relevant insights from the data.

The second chapter titled 'The Contribution of Artificial Intelligence in the Chinese Tourism Industry' is written by Panoraia Poulaki, Antonios Kritikos and Nikolaos Vasilakis. The aim of this chapter is to focus that the AI plays a particularly important role in the field of hosting due to the advent of new digital technologies. This research intends through the collection of secondary data from

the international literature to focus on the contribution of digital transformation and AI practices in the development of the hospitality sector in China. It gathers qualitative and quantitative data of AI practices that highlight the growth trend of this particular 'smart form of tourism' that uses special processing capabilities and algorithms while helping the hotel industry in its optimization in the fields of operations and marketing. The implications of digital technologies in the field of hospitality include very important trends that are increasingly attracting attention during the evolution of hospitality. It has provided the possibility of experiencing a virtual reality for the visitors of a tourism destination through the smart machines of the hotel units and the tourism destination that provide them with better experiences due to their innovative and technological methods. At the end of this research, proposals are given that highlight the strengths and opportunities of the utilization of AI systems in the field of hospitality from a modern research point of view. The challenges, weaknesses and threats that may arise from digital transformation and AI systems are also studied. Modern research proves their acceptance by visitors on trips with the corresponding impact on the financial part of their trip, on the part of their experiences and the positive or negative appearance of results of specific systems in the field of employment during its development before and after AI in the field of hospitality during the transition to the digital world of the twenty-first century.

The third chapter titled 'An Overview of Research on Tourism 4.0 and Smart Tourism: A Visualization Analysis' is written by Mert Ogretmenoglu, Busra Kesici and Gulsah Kocakaya. This chapter aims to review tourism 4.0 and smart tourism literature using a bibliometric approach. The authors used a VOS viewer to graph and map bibliographic documents. This chapter is original in that it deals with the concepts of smart tourism and tourism 4.0 together. Results showed that the literature on tourism 4.0 and smart tourism is growing remarkably. This chapter can provide significant knowledge for scholars investigating smart tourism and tourism 4.0 concepts.

The fourth chapter titled 'Crises and Resilience in the Age of Digitalization: Perspectivations of Past, Present and Future for Tourism Industry' is written by Manpreet Arora, Jeetesh Kumar and Marco Valeri. The aim of this chapter is to explore theoretically, what role digitalization has played in reviving the sector after pandemic through systematically reviewing the papers from SCOPUS database. An exhaustive systematic literature review has helped to conceptually work out the existing work done on crises and digitalization with special emphasis on tourism industry. It aims at exploring the contributions in existing literature on 'crises and digitalization' to work out the importance of digitalization in crises as resilience strategy that can help to deal with uplifting the tourism industry after pandemic. A critical discussion on varied aspects of crises and digitalization has broadened the ambit of critical exploration vis-à-vis resilience strategies. This piece of work is novel and original highlighting the importance of digitalization in tourism industry especially after crises. As a resilience strategy digitalization of the businesses in tourism industry helps to provide visibility by small efforts which can be cost effective also. This is helpful to those especially who lack support in the value chain of the sector and want some push for restarting their activities.

The recent trend in the tourism industry is tourism for well-being or nature-based tourism where the tourists want to explore the rural, countryside places in the lap of nature where they can find their spiritual dimensions of their own existence. Global and regional innovations in the travel ecosystems are possible only through digital interventions.

The fifth chapter titled 'Corporate Social Responsibility as a Competitiveness Factor in Hotels in Latin America' is written by Laura Guillermina Duarte Caceres and Antonio Emmanuel Perez Brito. The aim of this chapter is to analyze the current state of knowledge of corporate social responsibility as a factor that affects the competitiveness of hotels through a systematic review of the international academic literature with an emphasis on Latin America. The research work consists of a systematic review that involves the analysis of documents, articles, dissertations and international academic works that presented both theoretical and empirical research results. The search was conducted from January to December 2020 in online databases and search engines. The hotels have national and international economic relevance. Still, studies in this field are scarce. In this way, a compilation of recent works is made, to identify the way that corporate social responsibility affects the competitiveness of these enterprises that currently face serious problems in this domain, aggravated by pandemic, as well as generate a contribution to the state of the art and the subject knowledge gaps. The environmental awareness and knowledge that exists about this concept, there has not been a comprehensive way to apply it. Therefore, it is necessary to introduce certain measures, like sharing information and training on these issues. Also, it shows how there are significant differences in the application of CSR by categories and dimensions of sustainability.

The sixth chapter titled 'The Role of Digital Transformation on Women Empowerment for Rural Areas: The Case of Turkey' is written by Melike Sak, Alhamzah Alnoor, Marco Valeri and Gül Erkol Bayram. The aim of this chapter is to examine the projects and studies carried out in the tourism sector for the empowerment of women in rural areas in Turkey. With this study, the opportunities that women in the tourism sector can provide to their working lives with the development of digitalization and technology will be examined. The current situation, problems and future expectations of women empowerment in Turkey are discussed according to the document analysis technique, one of the qualitative research methods. Related literature and relevant statistics and current data were reviewed. The study is consisted of three main titles. The first title is women empowerment and their roles and responsibilities on tourism industry, the second title is rural tourism and potential of women population in Turkey challenges and opportunities and the third title is role of digital transformation on women empowerments within the case of Turkey. Since the issue of relations digitality and women empowerments in Turkey has not been discussed before, it can be said that the study is meaningful and original. According to the results, it is seen that women in Turkey have some opportunities and challenges by digital evolutions. By the sustainable solutions, digitality can help women and problems have been partially resolved with various government incentives and supports.

The seventh chapter 'Staycation Makers' Motivation and Their Preference for Robot/AI-Assisted Products and Services: Some Observations From Hanoi, Vietnam' is written by Hằng Thị Bích Trần, Bình Nghiêm-Phú and Nhung Thị Hồng Dương. The aim of this chapter is to examine staycationers' motivation and their preferences for robot/AI-assisted products and services at staycation destinations in Vietnam. This chapter chose Hanoi, the capital city in the North of Vietnam, as its setting. This chapter adopted a qualitative design with personal interviews as the data collection method. Nineteen participants were interviewed, and the data were analyzed via an inductive process. The findings suggest that staycation makers were a type of tourist whose motivation consists of escaping (relaxation and stress reduction) and seeking (experiences, entertainment, exploration, atmospheric changes and family and friend connections) aspects. These motivational points reflected the core need for a holiday with satisfactory products and services, such as lodging, eating, drinking and playing. However, destination owners could consider adding peripheral products and services provided by robots and AIs, such as information provision and room assistance. These additions could further meet the staycation makers' escaping and seeking motivations. The findings of this study expand the understanding of staycation. They also provide implications for developing and promoting staycation products and services.

The eighth chapter is titled 'The Development and Management of Slow Tourism Through the "Intangible Cultural Heritage"' is written by Alexandros Filiopoulos and Panoraia Poulaki. The aim of this chapter is to focus on the conditions and ways in which the cultural product and especially the one related to the intangible and living cultural heritage can be highlighted and interactively work in the development of alternative forms of tourism, such as slow tourism. A multidisciplinary secondary survey was conducted. The data was collected from secondary sources, and the time range was not restrictive. There was, however, a geographical limitation in the case studies, where two typical examples from the country Greece, were selected. This research places two components, slow tourism and intangible cultural heritage, on the same spectrum and attempts to create constructive reflection and trigger for creating common ground for their development in a country that has a very strong potential. The results of the research are related to the connection between alternativity and intangible cultural heritage as an inescapable necessity at the basis of the existential quest of an endlessly changing society. Any prospects that emerge require and presuppose political will within the framework of a national planning oriented towards sustainability.

The ninth chapter titled 'Public Policies for the Digital Transformation of the Tourism Industry Within the EU Tourism Transition Pathway: A Comparative Analysis' is written by Panagiota Dionysopoulou and Konstantina Tsakopoulou. The aim of this chapter is to provide a comprehensive and critical overview of public policies for the digital transformation of the tourism sector within the framework of the EU Transition Pathway. Desk research comprises both extensive literature review on critical issues concerning the digital transformation of the tourism ecosystem and systematic online research on EU and international bodies' platforms (OECD, UNWTO). Content analysis has helped identify

recurring themes in policymaking, which are then explored in the framework of the barriers and challenges to the digital transition identified by the literature. This chapter explores ongoing policy responses to challenges resulting from rapid technological change and the growing technology adoption by tourism supply and demand due to the pandemic. EU policy guidance has a lead role to play to streamline smart growth in tourism, given that tourism is a fragmented economic sector, embracing private and public stakeholders who are administratively and geographically isolated from each other, differ in size and scope and may adopt conflicting agendas. Ongoing policies within the EU transition pathway are data collection and processing, building digital skills, improving digital awareness, providing public infrastructure, supporting start-ups, enhancing e-governance, networking and improving the affordability of digital solutions for tourism MSMEs.