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IFRS AS GLOBAL STANDARD FOR ACCOUNTING INFORMATION: DOES THAT ENSURE COMPARABILITY OF FINANCIAL STATEMENTS? [τ]

Finn Scholer *

Abstract: One of the objectives of using the framework of IFRS / IAS throughout the world is to facilitate more transparent comparability of the financial information presented by the companies. But due to cultural differences between countries or (geographic) regions, it is questionable, if we use and adapt the IFRS principles in the same way everywhere. In other words, does it make sense to prescribe some accounting practice referencing to the process or input part of producing accounting information when the alleged aim is to improve the comparability of the accounting information provided by the companies, i.e. the financial statements or the output part? From the global ORBIS-database, we selected all listed non-financial and non-insurance companies which left us with more than 29 thousand public accounts (companies) from 99 different countries from all over the world. Based on available information from PWC and IAS Plus on the worldwide present status (December 2013) on the use and implementation of IFRS, we established a categorisation of each country's accounting regime: is IFRS required or permitted for listed companies in the country and what "version" of IFRS is at stake here? For our categorisation of cultural differences we used Hofstede's cultural indexes adapted to accounting setting in accordance with Gray and later comments (Hofstede, 2001; Gray, 1988). For our comparisons and analyses we carefully chose ROIC/ROA and NOPAT Margin since these financial ratios are not biased by differences in the capital structure or size of the companies but serves as well-defined and commonly used operational accounting profitability measures. Multivariate statistical methods and analyses (of means and variances) reflect significant differences in the observed key financial ratios in different countries adjusted for differences in the countries' economic climate and industry structure despite alleged use of same accounting regime. However, to a large extent, the cultural differences, as observable by the Hofstede-Gray indicators, are able to explain these cross country differences. It seems obvious that the differences reflect different attitudes towards recognition and measuring due to differences in tradition and culture in various countries and regions. And as a consequence, producing completely comparable annual reports across culturally different countries seems to be at best an illusion – even within the European Union.

Keywords: Financial Accounting Information, IFRS, Hofstede Cultural Indexes, Accounting Regulations, Comparability

1. Introduction

According to the IASB (2008/2010), comparability is a qualitative characteristic of financial information that enhances its usefulness. In paragraphs 39 through 42 the EU-accepted framework (2003) states that "users must be able to compare the financial statements of different enterprises in order to evaluate their financial position, performance and changes in financial position". Comparability is defined as the quality of information that enables users to identify similarities in and differences between two sets of economic phenomena (IASB,

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2008)[1]. According to DeFond *et al.* (2011) proponents of mandatory IFRS adoption argue that increased uniformity improves financial statement comparability and thus argue that increased comparability is the desired outcome of an adoption of a uniform set of accounting standards such as the IFRS. However, requiring companies to use a set of uniform accounting standards does not necessarily result in improved comparability (IASB, 2008). The proponents of the conceptual framework argue that a uniform set of standards increases comparability when it is faithfully applied (i.e. credibly implemented and resulting in an increase in uniformity). A universal financial language offers many advantages. Cross-border businesses benefit from reduced preparation costs and cross-border trading in securities increases as international investors can more easily compare the performance of companies based in different countries. It is also argued that this results in increased market efficiency and in a reduction in the cost of raising capital for companies, which ultimately helps to boost growth.

Among others, Yip and Young (2012) state that globalisation in the last decades has significantly increased the economic interaction among countries, which in turn has created a demand for more internationally comparable accounting information. There are several potential benefits associated with enhanced information comparability. For example, both the FASB and IASB argue that more comparable information enables global markets to operate with less friction. And according to Yip & Young, even much older studies suggest that higher information comparability facilitates international transactions and minimises exchange costs.

One of the objectives of using the IFRS framework throughout the world is to facilitate a more transparent comparability of the financial information presented by the companies. But do we use the IFRS principles in the same way everywhere? Does it make sense to prescribe some accounting practice such as references to the process or input part of producing accounting information when the alleged aim is to ensure comparability of the provided accounting information, i.e. the financial statements or the output part?

One of the key elements which could make disturbances is culture. Hofstede (2001) make convincing and severe documentation that people are organised and do things and think differently in different countries (and regions) as summarized and documented in his well-known cultural indices. Based on this knowledge on cultural differences, Gray (1988) maps the indicators into accounting systems, hypothesizing how cultural differences affects accounting practice and systems. Additionally, Nobes (1998) claims that also national legal systems and capital markets should be considered in this comparison.

According to DeFranco *et al.* (2011), the same economic income and value should ideally reflect the same return statistics. And when corrected for industry characteristics and regional competition effects, comparability will be found as the quality of information that enables users to identify similarities and differences between two sets of economic phenomena because the financial statements are reflections of economic events by a function, and the function represents the accounting system of the company. DeFranco *et al.* (2011) focus on capturing the notion of financial statement comparability based on the idea that the accounting system is mapping from economic events to financial statements. And in accordance with the Hofstede-Gray model and the Nobes points-of-view, this should indeed be the case if also their disturbing point were corrected.

Actually, in Ball (2006) a deep concern that substantial difference among countries in IFRS implementation now risk being concealed by a veneer of uniformity is presented. According to Ball (2006) the notion that uniform standards alone will produce uniform financial reporting seems at best naïve. IFRS advocates typically take the case for mandatory uniform accounting standards as self-evident. But the case for imposing accounting uniformity by fiat is *far from clear* and *calls for background analysis* of the economic role of mandatory accounting standards.

[1] In accounting text books, regulatory pronouncements and academic research the term comparability is defined in broad generalities rather than precisely.

The remainder of the paper is structured in the following way. In section 2 we provide the motivation and literature review for the study by examining literature on the IFRS implementation procedure, the cultural aspects, and especially addressing the comparison challenge, and we develop our hypotheses. In section 3 we describe the research design and the data collection procedure. In section 4 we present the findings and discuss some implications. Finally we conclude the paper in section 5.

2. Motivation, Literature Review and Hypotheses

In the context of accounting standards, comparability refers to the ability to use accounting data to draw valid inferences about *similarities* and *differences* not only between entities but also for the same entity over time and thus improved comparability of financial statements is often an alleged benefit of adopting IFRS. Using data relating to the post 2005 adoption period, many researchers have concluded the setting in which IFRS reporting takes place has a strong influence on whether potential benefits of IFRS can be realised (Daske *et al.* 2008 and 2013; Beuselinck *et al.* 2010; Christensen *et al.* 2012).

One fundamental question which has been addressed is whether the IFRS standards have changed the information that is available to market participants in a beneficial way, i.e. are the markets more efficient when IFRSs are used? The basic presumption is that the IFRS information provided by companies to market participants may differ significantly from information based on prior national GAAP due to differences between requirements of national standards and the IFRS standards. Many studies have therefore compared the pre-IFRS and the post-IFRS scenarios, i.e. compared the present situation with the past situation, and compared the findings to the anticipated results of the change. Some studies gather evidence about changes in market liquidity and companies' cost of capital as a way of measuring the impact of IFRS. In one of the first large scale studies of companies adopting IFRS in a mandatory setting, Daske *et al.* (2008) conclude that market liquidity increases following IFRS introduction. They also find evidence of a decrease in the companies' cost of capital and an increase in equity value prior to the official adoption date. In a related study, Daske *et al.* (2013) found benefits such as improved liquidity and lower cost of capital to be more likely for companies that are "serious" adopters of IFRS as opposed to "label" adopters (defined as companies with a commitment to transparency). The success of common standards depends not just on the quality of the standards issued by the IASB, but it also required an infrastructure to support IFRS at the national and international level.

Analysing accounting quality, earnings smoothing and accrual quality and timeliness (which are all potential sources of comparability), Barth *et al.* (2012) found evidence of an increase in the comparability after the companies adopted IFRS. They also found that comparability varied in the post-adoption sample, and that the adoption of IFRS improved the comparability of a company's results with the US companies that report under US GAAP, although differences remained. An alternative benchmark is to use stock price as the object of comparison; that is to predict stock prices using accounting variables prepared previously under domestic GAAP and subsequently under IFRS, and then to examine the differences in the pricing errors. The adoption of IFRS in Australia and Europe has been investigated along these lines using the 2004 annual reports as "pre-IFRS data" compared to the 2005 annual reports including "restated to post-IFRS data". At least for 2004 the comparison showed that IFRS improved the comparability of the accounting information for companies with headquarters in common law and code law countries so much that post-IFRS pricing errors could no longer be explained by legal origin (Clarkson *et al.* 2011).

Lang *et al.* (2010) use the DeFranco (2011) constructs and measure both earnings co-movement (based on the covariation in earnings between companies in different countries) and accounting comparability (based on the relationship of earnings and returns of a company, compared between companies in different countries). They find that while co-movement increases for IFRS companies, comparability does not. Further, the increase in co-movement is associated with a poorer information environment (measured as a decrease

in analyst coverage and forecast accuracy and an increase in bid-ask spreads). Further, they also find increased earnings co-movement but not increased comparability relative to a control sample of non-adapting companies and evidence suggests that this increase in earnings co-movement did not seem to improve (and may actually have inhibited) financial statement users' ability to gain information from cross-company comparisons.

However, even under IFRS there is some room for choosing among accounting policies that may be more or less similar. It is therefore no surprise that a review of 16 accounting policies used by "blue chip" companies in the five largest stock markets showed that even though they were reporting under IFRS the companies still preserved pre-IFRS national practices whenever allowed to do so. This has led to documentation of "national patterns of accounting within IFRS", i.e. the IFRS practice is not the same across countries, which may limit comparability (Kvaal and Nobes, 2010 and 2012; Nobes, 2011). In particular, changes in the comparability of accounting numbers in Germany and Italy, both code law countries, have been studied in detail by Cascino and Gassen (2012) who conclude that "the overall comparability effect of mandatory IFRS adoption is marginal", using proxies from DeFranco *et al.* (2011) as basis for comparability measurement.

Additionally, diversity in accounting practices can be expected to increase the dispersion of accounting measurements of the same underlying event and make the comparison more difficult. Based on a very large sample drawn from EU and Australian companies over the period 1994 – 2004 and in 2006, a study made by Jones and Finlay (2011) found statistically significant reductions in the variability of ratio measures in the post-IFRS period where variability was measured by the coefficient of variation, a scale neutral measure of dispersion of a probability distribution, both across industry groups and across countries.

Although the benefits are claimed to be plentiful (Brown, 2011), most of the key practical tasks have so far been how to measure (increased) comparability. The recent convergence of global accounting standards has motivated an interest in research that examines comparability more directly on the output part. But still, in accordance with Yip and Young (2012), the effect of IFRS adoption on cross-country information comparability is examined in a pre- vs. post-IFRS study. The purpose of their study is to provide more empirical evidence on this issue by using three proxies, the similarity of accounting functions that translate economic events into accounting data, the degree of information transfer and the similarity of the information content of earnings and of the book value of equity – to measure information comparability. The results suggest that mandatory IFRS adoption improves cross-country information comparability by making similar things look more alike without making different things look less different.

According to Nobes (1998) among other factors, it is without doubt that culture can be seen as one of the key background factors leading to more direct causes of accounting differences. According to Nobes (1998), also in particular the legal system as well as the capital market is two institutional key elements with high influence on how the accounting discipline and system is developed in a particular country. Violet (1983) argued that accounting as such is a 'socio-technological activity' that involved interaction between both human and non-human resources. Violet was one of the first to claim that accounting cannot be considered culture-free. As such, culture may be a very useful factor when comparing available accounting information and the different approaches, practices, and audit behaviour related to the production of this information.

Hofstede (2001) has defined culture as 'the collective programming of the mind which distinguishes the members of one human group from another.' His original theory proposed four dimensions along which cultural factors could be analysed: individualism-collectivism; uncertainty avoidance; power distance (strength of social hierarchy); and masculinity-femininity (task orientation versus person-orientation). Already Gray (1988) argues that the value systems of accountants could be derived and related to these Hofstede societal values or cultural dimensions. The values of accounting subculture will in turn, it is believed, impact on the development of the respective accounting systems at the national level. Therefore, it

can be questioned whether accounting systems can be developed in a "one-size-fits-all" perspective – an approach which in some respects the IASB appears to have adopted.

The four original Hofstede cultural factors can shortly be described as follows:

- Large versus Small Power Distance (PDI): Power Distance is the extent to which the members of a society accept that power in institutions and organizations is distributed unequally. Large Power Distance societies accept a hierarchical order in which everybody has a place, which needs no further justification.
- Individualism versus Collectivism (IDV): Individualism stands for a preference for a loosely knit social framework in society wherein individuals are supposed to take care of themselves and their immediate families only. Collectivism stands for a preference for a tightly knit social framework in which individuals can expect their relatives or other in-group to look after them in exchange for unquestioning loyalty. Impact of individualism – it is interesting that a great deal of economic theory is based on the notion of self-interest and the rational economic person.
- Masculinity versus Femininity (MAS): Masculinity stands for a preference in society for achievement, heroism, and assertiveness and material success. Femininity stands for a preference for relationship, modesty, caring for the weak, and for the quality of life. The fundamental issue addressed by this dimension is the way in which a society allocates social roles to the sexes.
- Strong versus Weak Uncertainty Avoidance (UAI): Uncertainty Avoidance is the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. This feeling leads them to beliefs promising certainty and to sustaining institutions protecting conformity. Fundamental issue of Power Distance and Uncertainty Avoidance Power Distance – How a society handles inequalities among people when they occur. Uncertainty Avoidance – How a society reacts to the fact that time only runs one way and that the future is unknown: whether is tries to control the future or to let it happens. Both of above have consequences for the way people build their institutions and organizations.

Gray (1988) developed four accounting values that were deemed to relate to the accounting subculture with the intention that the accounting values would then be directly linked to Hofstede's four societal values.

- Professionalism versus Statutory Control
- Uniformity versus Flexibility
- Conservatism versus Optimism
- Secrecy versus Transparency

Gray (1988) then developed four hypotheses relating Hofstede's four societal cultural dimensions to each one of his own four accounting values. Gray did not test them empirically – to test them, as others have subsequently done, one must determine whether an accounting system scores high or low in a particular country on the four developed dimensions.

Gray-hypothesis 1: The higher a country ranks in terms of individualism and the lower it ranks in terms of Uncertainty Avoidance and Power Distance, then the more likely it is to rank highly in terms of *Professionalism*. The higher the degree of ***professionalism***, the greater the degree of professional self-regulation and the lower the need for government intervention

Gray-hypothesis 2: The higher a country ranks in terms of Uncertainty Avoidance and Power Distance and the lower it ranks in terms of Individualism, then the more likely it is to rank highly in terms of *Uniformity*. The degree of ***uniformity*** preferred in an accounting sub-culture would have an effect on the manner in which the accounting system is applied. The higher the degree of *uniformity* the lower the extent of professional judgment and the stronger the force applying accounting rules and procedures

Gray-hypothesis 3: The higher a country ranks in terms of Uncertainty Avoidance and the lower it ranks in terms of Individualism and Masculinity, then the more likely it is to rank highly in terms of *Conservatism*. The amount of *conservatism* preferred in an accounting sub-culture would influence the measurement practices used. The higher the degree of *conservatism* the stronger the ties with traditional measurement practices.

Gray-hypothesis 4: The higher a country ranks in terms of Uncertainty Avoidance and Power Distance and the lower it ranks in terms of Individualism and Masculinity, then the more likely it is to rank highly in terms of *Secrecy***.** The degree of *secrecy* preferred in an accounting sub-culture would influence the extent of the information disclosed in accounting reports. The higher the degree of *secrecy***,** the lower the extent of disclosure

All these hypotheses and claimed relationships are also presented in the below Table 1. It is important to be aware of the fact that what is dealt with here is only indicators, and their relative influence on each other, while the absolute relations are not considered.

Table 1. The general linkage between Hofstede and Gray

Cultural values (from Hofstede)	**Accounting values (from Gray)**			
	Professionalism	Uniformity	Conservatism	Secrecy
Power Distance (PDI)	-	+	?	+
Individualism (IDV)	+	-	-	-
Masculinity (MAS)	?	?	-	-
Uncertainty Avoidance (UAI)	-	+	+	+

Note: '+' indicate a positive relationship; '-' indicate a negative relationship; and '?' indicate that the direction of the relationship is unclear.

Perera (1989), as one of the first to try to test the Gray-hypotheses, provides additional discussion in respect of the relationship summarized of the above Table 1 and considered both Hofstede's cultural dimensions and Gray's accounting sub cultural value dimensions and uses them to explain apparent differences in accounting practices adopted in continental European countries and Anglo-American countries. According to Perera, many countries in continental Europe are characterized by relatively high levels of uncertainty avoidance where rules or 'social codes' tend to shape behaviour, while the opposite applies in Anglo-American countries.

There have been several contributions in the literature attempting to extend or refine the Hofstede-Gray model framework in understanding the influence of culture on accounting. Chanchani and MacGregor (1999) have examined the literature focused on the conceptual and theoretical issues of the Hofstede-Gray model, while Duopnik and Tsakumis (2004) investigated the literature concerning the empirical testing of the theory relating culture to global diversity in financial reporting. Duopnik and Tsakumis (2004) attempted to determine whether the Gray (1988) framework had been subjected to adequate empirical inquiry so as to prove its validity, and summarised the research methodologies employed to test the theory by looking at: country level tests; studies testing all four hypotheses; studies testing one hypothesis only, and testing at an individual level only (rather than a collective level).

The Hofstede-Gray model setting has been subject to some criticism. McSweeney (2002) claimed that the Hofstede model suffered from some (five) issues related to crucial methodological assumptions, all questionable. For instance: The people surveyed were similar in every respect other than their nationality, since they were all sales, project or marketing people employed by IBM for which reason they cannot in any way be claimed to be representative for the specific country´s culture as such, and consequently the causality relating the results to country differences as such can be questioned. And because of this severe violation of one of the key assumptions, McSweeney claimed that the whole study can be questioned. Also Baskerville (2003) questions the use of national country-wise cultural indices misleading to a dependence on cultural indices as an explanatory variable of

differences in accounting practices and behaviour, due to alleged problems in the assumption of equating nation with culture; the difficulties of and limitations on a quantification of culture represented by cultural dimensions and matrices; and the status of the observer outside the culture. However, as Joannides *et al.* (2012) indicate, also the critiques on the Hofstede-Gray model can be questioned – and as a consequence we choose to make use of the model as originally presented for our purpose here just taking note of the criticism. Combined with Nobes' documented persistence of national patterns within the use of IFRS lead to different use of IFRS, which in turn affect the financial information output, making comparisons of companies using IFRS harder across countries and consequently this alleged goal must be seen as simply an illusion.

The focus of the present study is on the output part, but it is not a before versus after study; – we only focus on the available outcomes to see if we have comparable financial statements irrespective of the reasons given for implementing the IFRS framework in large parts of the world. In this study we precede this alleged attitude towards the output of accounting financial statements since we focus on the companies' latest published accounting information, i.e. their financial statements or the output part. Based on more than 29,000 listed companies worldwide we investigate whether accounting information is comparable across industries, and countries – and last, but not least, cultures.

To make the comparison fair we correct the observable accounting information by observable differences in coherent business performance. We also correct the accounting information by the present observable differences in business climate across the different countries by using relevant input from "The Global Competitiveness Report 2013-2014" from World Economic Forum, see Schwab (2013).

For our analyses we concentrate on four classic industry-adjusted performance-related financial accounting based ratios: the Net Operating Profit After Tax Margin (NOPAT%), the Return On Invested Capital (ROIC), the Return On Assets (ROA) and the Return On Equity (ROE). All these four financial ratios serve as well-defined, fair and commonly used accounting based evaluation measures of company business performance. Basically, we rely on the general economic assumption that it will not be possible to maintain higher or lower average levels of performance in selected countries in our globalised world in the long run. But since this could be the case in a shorter run, we adjust our calculated ratios by "observed" differences in expected overall business performance in countries by officially published notions on country "performance" in The Global Competitiveness Report 2013-2014 from World Economic Forum, see Schwab (2013).

We use a two-by-two steps approach in our study and each step challenges the comparability between observed performances in different companies, industries, countries, cultures and accounting regimes. In the two steps we look at all our selected companies grouped according to different accounting regimes since we expect financial ratios to be affected by differences in accounting regime like different treatment of R&D or goodwill in IFRS-GAAP, US-GAAP and local-GAAP. This expectation should be quite intuitive since if this was not the case, there would be no real arguments for changing local-GAAP to IFRS and the US-GAAP / IFRS convergence project would be just a waste of time. More formally stated we hypothesize that:

- **H1a:** The observable financial performance ratio level will be different across different accounting regimes, (i.e. IFRS as published by IASB, as adopted by EU, as adopted locally (incomplete) or not allowed.)
- **H1b:** The observable financial performance ratio level will be different across different accounting regimes, (i.e. IFRS as published by IASB, as adopted by EU, as adopted locally (incomplete) or not allowed), but it will be less different if cultural differences, as expressed in the Hofstede-Gray model relations, are taken into account.

In the last two steps we focus solely on the IFRS-part of the world. Since one of the alleged benefits as discussed earlier is to increase the comparability in companies using IFRS across different industries, regions and countries, we challenge this assumption by expecting the financial performance ratios level among the companies that are required to

use IFRS to be (on average) on the same level. Especially the EU has repeatedly claimed that the IFRS implementation is necessary in order to increase the comparability in the European Union, and it is even so important for them that they have made a specific IFRS-approval system. We therefore split the IFRS part of the world into EU and non-EU countries. In each of these two groups we challenge the assumption that the use of IFRS ensures comparability among the companies in different countries. We do so by expecting the financial performance ratios for the listed companies required to use IFRS to be at the same levels (on average).

More formally stated we hypothesize that:

- **H2a:** The observable financial performance ratio level will be equal across different countries where IFRS is required for listed companies in the EU and non-EU, respectively.
- **H2b:** The observable financial performance ratio level will be even more equal across different countries where IFRS is required for listed companies in the EU and non-EU, respectively, if cultural differences, as expressed in the Hofstede-Gray model relations, are taken into account.

3. Data Selection and Research Design

In this section we first describe the sampling of the overall dataset, i.e. how we ended up with at a global company sample of 29,092 observations, which will be the basis for our efforts in answering the research questions.

From the global ORBIS-database, we selected ***all*** listed non-financial and non-insurance companies, which left us with more than 40 thousand public accounts from 126 different countries from all over the world.

Based on available information from mainly PriceWaterhouseCoopers' publication (2013) on IFRS adoption by country and on some additional information retrieved from IAS Plus (www.iasplus.com) dealing with providing overview of present (December 2013) status worldwide for the use and implementation of IFRS, we established a categorisation of each country's accounting regime: is IFRS *required* or *permitted* or not allowed for listed companies in the country and we also looked at the relevant "version" of IFRS.

Since the Hofstede cultural indicators (PDI, IDV, MAS and UAI) unfortunately are not available for all countries in the World, we deselected companies in those quite few countries where no calculated Hofstede indicators were found (via his website on April 13th, 2014).

Additionally we requested data from at least 5 companies to be available in each country, since fewer would make it difficult to argue that they could indicate some country level. Actually, for basic statistical reasons we would have preferred a larger number (say 50) as a minimum target. However, this would reduce the number of participating countries by 43, i.e. almost half of the countries and thus it would have dramatic consequences for the number of countries in the study, for which reason we decided to keep the 5 company target in the study.

Because full-data was requested for calculating the relevant financial performance ratios, companies with negative equity, invested capital, total assets or turnover, or simply just incomplete datasets were deleted and the remaining result was 29,092 valid companies from 99 different countries.

If we break down this complete sample of observations, i.e. number of companies and countries, in PWC's two basic classification dimensions, listed/non-listed and IFRS requested/non-requested, our observations can be categorized as in Table 2.

Table 2. Accounting Regimes for listed companies - Number of companies/countries

Version Rules	As published by the IASB	Standards adopted by the EU	As adopted locally (i.e. Incomplete)	Not Applicable	Total
Required	4,869 / 30	4,139 / 31	2,130 / 12	---	11,138 / 73
Permitted	3,338 / 6	---	3,471 / 6	---	6,809 / 12
No, but converged with IFRS locally	---	---	---	4,050 / 4	4,050 / 4
No - a clear rejection	---	---	2,585 / 2	4,510 / 8	7,095 / 10
Total	8,207 / 36	4,139 / 31	8,186 / 20	8,560 / 12	29,092 / 99

Before proceeding to the analyses, we make the following adjustments to the "raw" dataset: First, we adjust the observable financial ratios by industry (NACE-groups, see Eurostat, 2008) since a company's business performance is quite dependent on the industry in which the company takes part and since the composition of industries is different in different countries. Second, we correct the observed data by the present country business climate by using the relevant World Economic Reviews' well-known metrics. And finally, as it is quite common in studies like this, we deal with extreme cases by winsorizing (5%) the dataset. Winsorizing the data involves replacing outliers with the next highest score that is not an outlier.

Subsequently for the second part of our analyses we correct the data by the Hofstede-Gray model by country culture characteristics level indicator relation, reflecting the cultural influence on the accounting financial ratio numbers. Hereafter one-way ANOVA is used to perform tests in accordance with the presented two hypotheses, part a and b, challenging the levels in the different financial ratios, groups and countries.

This method is primarily useful because our expectations heavily draw on the differences in and between the defined groups, i.e. the countries. We basically believe that choice of accounting regimes (IFRS, US-GAAP, local GAAP and cultural/local implementation) does matter when comparing accounting figures. If this assumption is fulfilled we can proceed and challenge the IFRS-part of the world. If our numbers are comparable, the equality or non-equality between averages in different geographical regions/countries/groups can be analysed.

Many additional considerations could be taken into account when doing a study like this and for all the concerns not taken explicitly into account a warning is hereby given, i.e. do we compare apples with apples or do we have some interfering bananas and pears? One key issue to be addressed is that although the setting (IFRS) is standardised, it could be that the different companies handle the regulation differently due to differences in, accounting practise and traditions and the like. On the other hand, if the regulative setting is not able to capture these issues, the output numbers cannot be expected to be comparable. And if that is the case, then the system could be said to have failed – at least concerning this task.

4. Findings and Implications

In this section we first present some descriptive statistics, which are followed by the results from our ANOVA analyses and the analyses of some of the implications as we see them.

In Table 3 we present some key descriptive statistics to give an indication of the variation in our complete sample for listed companies. As it seems quite clear, our performance measures, the NOPAT%, ROIC, ROA and ROE, show some clear differences across different accounting regimes. And this goes for the "rough" accounting based measures as well as for the Hofstede-Gray model corrected corresponding performance measures. Similar observations can be made concerning the means, ranges and variations

in the standard error in the different groups and subgroups for our other selected performance measures.

Table 3. Descriptives for ROIC

No	Name	N	Mean	Std.err	Range (basic)	Mean	Std.err	Range (Hofstede-Gray)
11	Required, IASB	4,869	0.0076	0.0012	0.0053 - 0.0099	0.0070	0.0011	0.0049 - 0.0092
13	Required, EU	4,139	0.0096	0.0014	0.0068 - 0.0123	0.0100	0.0016	0.0070 - 0.0131
14	Required, local	2,130	0.0177	0.0022	0.0135 - 0.0220	0.0117	0.0012	0.0093 - 0.0140
22	Local	4,510	0.0083	0.0014	0.0054 - 0.0111	0.0058	0.0018	0.0023 - 0.0093
31	Permitted, IASB	3,338	0.0201	0.0014	0.0174 - 0.0228	0.0181	0.0013	0.0156 - 0.0205
34	Permitted, local	3,471	0.0134	0.0012	0.0110 - 0.0158	0.0130	0.0012	0.0107 - 0.0153
42	Local, but converged	6,635	0.0244	0.0014	0.0217 - 0.0272	0.0188	0.0011	0.0167 - 0.0209
	Grand total	29,092	0.0141	0.0005	0.0131 - 0.0151	0.0121	0.0005	0.0111 - 0.0131

Before we proceed to the conclusions using ANOVA, we have to look at some of the key assumptions. First we want to deal with variance homogeneity which is tested by the Levene's test. All we need to know is that if Levene's test is significant at $p < 0.05$ then we conclude that the null hypothesis is incorrect and that the variances are significantly different and therefore, the assumption of homogeneity of variances has been violated. For our four selected financial ratios, the analyses presented below we observe Levene's test-statistics being 124.619; 29.214; 41.192; and 26.233, respectively. When taking the appropriate degrees of freedom (df1 and df2) into account, this led to the conclusion of non-homogeneity at any reasonable significance level in all instances. However, it should be noted that when the sample size is large, small differences in group variances can produce a Levene's test which is significant and there are also other very strong arguments for not using it. Additionally, it should be noted that the Levene's test seems not to work as well with unequal group sizes, which is the case here. And when the sample size is large, small differences in group variances can produce a Levene's test that is significant (even though it maybe should not be). But we conclude that the variances are significantly different and that the assumption of homogeneity of variances is violated.

Because of this variance homogeneity violation, we perform Welch and Brown-Forsythe tests since these tests handle the variance homogeneity violation. Referring to Table 4, the results of all our analyses show the Welch-statistics as well as the Brown-Forsythe-statistics at sufficient levels when the appropriate degrees of freedom (df1 and df2) are taken into account, to leave us with the conclusion of robust equality of the means at any reasonable significance level.

Table 4. Robust tests of equality of means across accounting regimes

Financial ratio		Welch	df1	df2	Sign.	Brown-Forsythe	df1	df2	Sign.
NOPAT Margin	Basis	49.467	7	11,329	0.000	47.447	7	18,407	0.000
	Hofstede-Gray	38.487	7	11,493	0.000	34.798	7	23,909	0.000
ROIC	Basis	20.180	7	11,381	0.000	20.436	7	25,461	0.000
	Hofstede-Gray	14.956	7	11,601	0.000	14.938	7	25,536	0.000
EBIT to TotalAssets	Basis	18.165	7	11,330	0.000	17.867	7	23,494	0.000
	Hofstede-Gray	11.350	7	11,539	0.000	10.747	7	26,486	0.000
ROE	Basis	17.681	7	11,384	0.000	17.371	7	24,402	0.000
	Hofstede-Gray	13.670	7	11,605	0.000	12.603	7	25,798	0.000

In Table 5 below, we present the results from our ANOVA analyses of one key performance financial ratio, the ROIC, in standard version and in Hofstede-Gray model corrected version for comparison, corresponding to our hypotheses H_{1a} and H_{1b} simultaneously. Although it is clear that the two F-statistics are significant at any appropriate significance level, it also seems clear that we have differences. First of all, from our ANOVA table it is clear that the first hypothesis H_{1a} is fulfilled; we do have differences. For the second part, our hypothesis H_{1b} is also fulfilled; we do have differences. However, it should be noted that the F-value is much smaller since it is reduced to about one third for the hypothesis H_{1b} related test, if compared to the hypothesis H_{1a} F-levels, which make support for our joint hypothesis even though we still not have a significant confirming conclusion, but rather a remarkable change/difference – and unequal levels at any reasonable significance level.

Table 5. ANOVA - ROIC

			Sum of Squares	df	Mean Square	F	Sig
1a	Basic financial ratio	Between Groups	6,266	94	0.067	9.145	0.000
		Within Groups	211,380	28,997	0.007		
		Total	217,646	29,091			
1b	Hofstede-Gray model corrected financial ratio	Between Groups	2,469	94	0.026	3.700	0.000
		Within Groups	205,854	28,997	0.007		
		Total	208,324	29,091			

In Table 6, we sum up the F-levels and significance levels related to ANOVA analyses for all our presented hypotheses. The first two columns refer to hypothesis H_1 and the last four columns refer to hypothesis H_2. As to our hypotheses H_{2a} and H_{2b}, the results shown are partly as expected, while the hypothesis H_1 conclusion is more completely as expected.

Table 6. Multiple comparisons of different F-levels for different selected financial ratios (significance level)

	All accounting regimes				**Non-EU countries**				**EU countries**			
	Basic		**Corrected**		**Basic**		**Corrected**		**Basic**		**Corrected**	
NOPAT%	13.192	(.000)	5.812	(.000)	10.065	(.000)	3.608	(.000)	2.502	(.000)	1.288	(.135)
ROIC	9.145	(.000)	3.700	(.000)	5.614	(.000)	2.644	(.000)	1.504	(.038)	0.450	(.996)
ROA	11.386	(.000)	4.313	(.000)	7.071	(.000)	3.501	(.000)	1.792	(.005)	0.561	(.974)
ROE	8.121	(.000)	3.501	(.000)	4.697	(.000)	2.372	(.000)	3.194	(.000)	1.069	(.365)
No companies/countries	29,092 / 99				4,869 / 30				4,139 / 31			

Referring to Table 6, ANOVA F-levels for all four financial performance ratios in basic version as well as Hofstede-Gray model corrected version respectively for comparison are shown. The Table 6 is organised as follows: it is divided horizontally in three sections; the first one reflecting all countries in all accounting regimes simultaneously, the second one reflecting all countries in EU and the third one reflecting all non-EU IFRS countries respectively. For each F-value, the corresponding significance level is presented in parentheses. Our hypotheses H_{2a} and H_{2b} as well as H_{1a} and H_{1b} are all confirmed, and also our joint hypothesis seem confirmed, supporting the point-of-view, that culture is a key factor when looking at differences in levels for accounting performance measures. In general the Hofstede-Gray model corrected financial performance ratio measures show smaller F-values

than their basic counterparts indicating that the countries are less un-equal when also culture is taken into account. In fact, for the EU-countries group, the pattern is very clear, since the basic financial ratios all show inequality (at a 5 per cent significance level), while the Hofstede-Gray model corrected financial ratios all show equality. These results suggest that the EU countries in general are more homogeneous than the non-EU IFRS using countries since here seems to be needed other factors than culture as measures to remove the inequalities between the levels of the accounting financial performance ratios.

5. Conclusions

To sum up, our overall findings concerning our hypotheses H_{1a} and H_{1b} are as follows: The robustness tests and ANOVA lead to the not surprising finding that we do have differences in the different performance ratios level across different accounting regimes using the different F-levels as measures to compare. The difference is most clear for the NOPAT% and the ROA. For the culture adjusted figures we see the same pattern, but at smaller F-level numbers, indicating that the hypothesis is accepted – and due to the difference in the F-levels in the right direction, it indicates confirmation of our indirect joint hypothesis too.

And concerning our hypotheses H_{2a} and H_{2b} we found: We see a similar pattern as for hypothesis H_1 here, including robustness tests and ANOVA. It is very interesting that we see significant inequalities between IFRS countries in the two groupings, the EU countries and the non-EU IFRS countries. However, the difference in the levels when comparing the EU and non-EU is striking. In fact, for the EU countries group the cultural effect becomes very clear, since we go from different levels to not-different levels. This is the very same as concluding that culture in the Hofstede-Gray model understanding captures the differences.

All these results presented in the present study give rise to questioning whether the use of IFRS as such has indeed led to the alleged comparability in the financial statements. When controlling for differences in industry performance and country-wise competitive possibilities, our results show that overall complete comparability has not been achieved. We did, however, find that when we take cultural differences between countries into account then the financial statements are relatively more comparable than if we did not. It is striking that even in the EU the cultural factor is of high importance when we examine financial information from companies in different countries, and consequently these results call for further attention.

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ADJUSTING CATEGORY MANAGEMENT TOWARDS YOUNGER CONSUMERS – THE KEY FACTORS OF A BEER AS A RETAIL PRODUCT CATEGORY IN CROATIA

Blazenka Knezevic*, Petra Skrobot, and Mia Delic*****

Abstract: Retailer's profitability and performance are the direct outcome of successful satisfactions of consumers' needs and providing as high value of goods and services as possible. In order to achieve high consumer satisfaction and cost efficiency, retailers are often applying the concept of category management. According to one of many definitions, category management is a process that treats product categories as business units that have to be customized at the store level in order to satisfy consumer needs. Contemporary retailing is a highly competitive business activity and retailers are putting great efforts into category management in order to adjust their product categories to target groups of consumers better than their competitors. This paper gives a brief overview of the theoretical framework of category management with an emphasis on beer as a specific retail product category. The paper focuses on characteristics of younger beer consumers in Croatia. For the purpose of assessing the key factors that influence management of beer as a retail product category, the primary research was conducted on a sample of students from different universities in Croatia. The primary research results indicate the current satisfaction level with contemporary management of beer as a retail product category.

Keywords: Retailing, Category Management, Beer, Young Consumers, Croatia
JEL classification: L81, M31, M37

1. Introduction

Beer is the most consumed alcoholic beverage in Europe. According to the Association of European Brewery (Brewers of Europe, 2014), 383,553 million hectoliters of beer were produced in 2013, while the annual consumption is estimated at 346,161 million hectoliters in the European Union. On the territory of the European Union, there are 3,906 brewing companies of which 1,479 operate in the UK, but exact data on the microbrewery are unavailable for many countries. Therefore, information on the 3,613 microbreweries in the EU should be taken with a caution.

In Croatia, the annual consumption of beer per person is about 80 liters, which places Croatia among the top 20 countries in the world in terms of beer consumption. According to the Group of manufacturers of beer, malt and hops in Croatian Chamber of Commerce, the average annual sales volume of beer on the Croatian market is around 3.5 million hectoliters. The overall turnover at retail prices in the retail and catering sector is between 5.5 and 6 billion kunas, i.e. around 0.8 billion EUR (Ja Trgovac, 2014).

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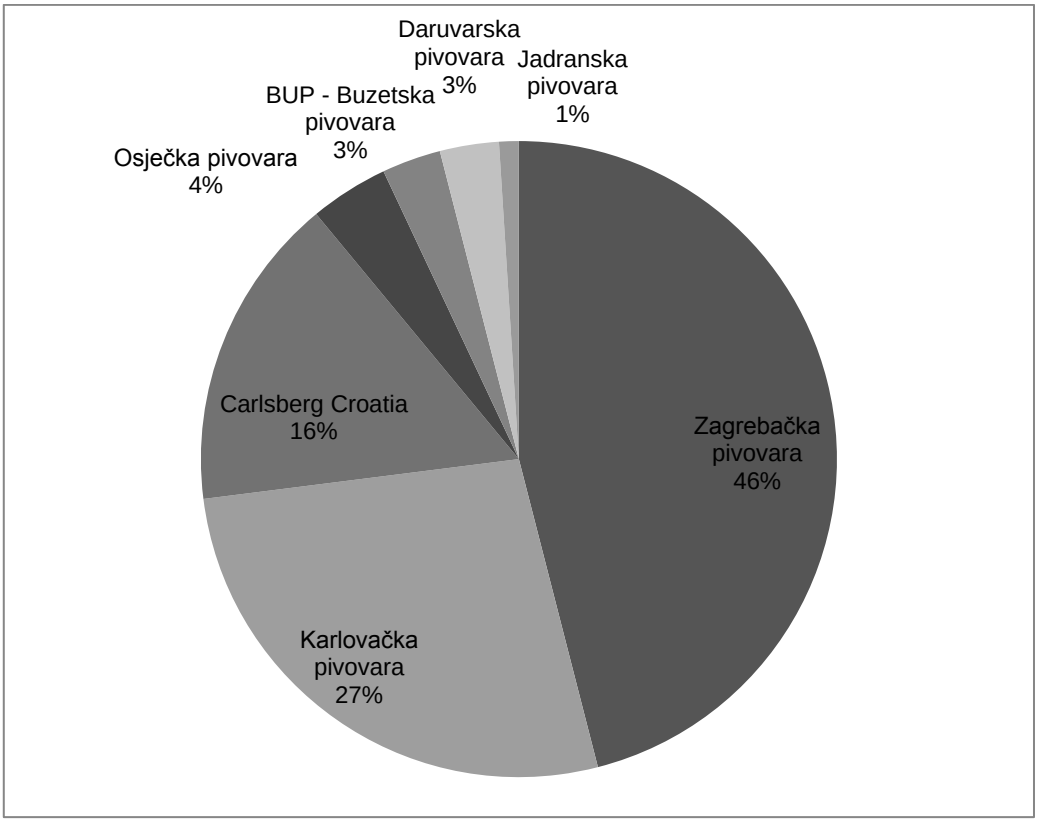


Figure 1. Market shares of industrial brewery in Croatia in 2011
Source: Own compilation based on data collected from the Group of producers of beer, malt and hops, Croatian Chamber of Economy
Notes: Registered names of brewing companies in Croatia are given in original.

The Croatian industry and beer production and distribution system in large part is determined by seven industrial breweries (Mioc, 2012): Zagrebacka pivovara, Karlovacka pivovara, Carlsberg Croatia, Osjecka pivovara, Daruvarska pivovara, Jadranska pivovara and BUP – Buzetska pivovara. Figure 1 shows the structure of the beer market among industrial manufacturers in Croatia.

A half of the total beer quantity in Croatia is sold in the retail, what means that 1.8 million hectoliters of beer is sold in retail stores. The average beer price is 0.87 EUR per liter in the supermarket, which means that customers of beer allocate 130 million EUR excluding VAT per year. According to some estimation, the trade directly related to breweries in Croatia has 875 employees with 147,500 EUR average incomes per employee (excluding VAT) per year (Ernst and Young, 2009).

If we consider that one industrial brewery produces on average 5 types of beer and drinks based on beer that are packed in different types of packaging, for the Croatian market, we can estimate that retailers are choosing among 140 different options in the selection and procurement of beer from domestic industrial producers. If we add almost 80,000 purchase options of beer imported from major manufacturers within the EU market and various options available from microbrewery, we get extremely complex supply range for beer category managers in retail businesses. Another problem in managing this category is an extreme seasonality of demand.

Category managers responsible for planning, procurement and organization of placement of beer in retail companies, are faced with the problem of a large selection of beers on the supply market, and have to make decisions such as: (a) how to choose suppliers, (b) how to choose brands and packaging of beer for retail stores, (c) how to position the shelves of beer in relation to the shelves with other items in the store, (d) how to arrange the shelves (what type of beer packaging should be set on the bottom of the shelf,

which in the height of the eyes etc.), (e) how to undertake the promotion of beer in advertisements and in-store merchandising activities.

All these decisions should be based on data about consumers, so for this study the primary research was conducted. The primary research is focused on younger consumers and should give answers about their satisfaction with a beer as a retail product category, and clarify what are the factors that influence younger consumer's decision when buying beer. But before explaining the results of primary research, it is necessary to describe what category management represents and why the consumer perspective is taken as a starting point for category management in retail.

2. Category Management – A Theoretical Overview

Some authors believe that the concept of "category management" appeared in 1985 in the US market. The main merit for this innovation is attributed to Professor Harris, who introduced the concept of "category management" in practice (Raskin, 2003).

According to one definition, product category is determined, measurable, group of products or services that can be managed, and which consumers perceive as interrelated or interchangeable in meeting their needs (Muller and Singh, 2006). Product category can be measured, and products within a category are the same by functionality as their only choice depends on the preferences of individual consumers. Regarding functionality, products are interchangeable within the category.

The most commonly used definition of category management is the one that brings Nielsen (1992, p. 9): "category management is a process which treats product categories as business units that can be adjusted at the store in order to meet consumer needs".

From the above definition it can be concluded that the category management is a whole process that includes a number of steps, and the most important thing is that the product category is managed in a way to satisfy the desires and needs of consumers.

Categories can be controlled and for this reason the product categories are treated as strategic business units; for each category different strategies have to be formulated and applied (Madaan, 2009). In addition, Basuroy *et al.* (2001) explain how implementation of category management principles can directly influence the profitability of a particular product category (in their study, they investigated laundry detergents as a specific retail category).

One more complex definition states that category management is a practice of segmenting the main areas of organizational costs when purchasing products and services, in separate groups of products and services in accordance with the function of these products or services, and most importantly, in accordance with the organization of individual markets (O'Brien, 2009). This definition of category management explains the whole process from procurement of products by placing the emphasis on costs, or monitoring costs related to a particular product group, but does not place emphasis on meeting the needs of consumers.

Conversely following definition emphasizes that the category management is a concept developed by the retailers. Category management is a retail concept in which a wide range of products of specific retailers is divided into separate groups of similar or related products known as product categories (Chiplunkar, 2011).

Most authors agree that the category management is a process of managing product groups of similar or identical characteristics in accordance with the needs of consumers, with a minimum costs. This is supported throughout research studies, for instance Dupre and Gruen (2004) give the results of the primary research on correlation between retailers and suppliers in the fast moving consumer goods channel in order to implement effective consumer response.

There are four aspects or four perspectives of category assessment (AC Nielsen, 2006), namely: (1) consumer perspective, (2) the perspective of the market, (3) perspective of retailers, and (4) the supplier perspective. Even though all four perspectives are considered important, the greatest weight in estimating categories has the perspective of the

consumer. According to AC Nielsen (2006) the most important phase in category management process is the estimation who are the consumers and what are their purchasing habits. If there is no interest to a particular product category, retailer will not take into consideration the other perspectives.

Various empirical studies show the importance of optimizing the assortment, place on the shelves and shelf availability and this is done in accordance to purchasing habits of targeted consumer group. Dhar *et al.* (2001) give valuable data on key factors of category management from the retailer's point of view.

Retailers and manufacturers use different software for drafting the plan range and positioning of products on the shelves. The popularity of software is great because of their simplicity in implementation of decisions in a large number of items and the visualization of the schedule on the shelves (Hubner, 2011).

There are numerous variations of the category management in practice as well as in the theory. Many companies today are developing their own processes of category management that contain basic and some extra stages depending from company to company (Bogetic, 2007). Moreover, particular product categories in retail should not be assessed and planned individually, but other interrelated categories should be taken into account because Cachon and Kok (2007) proved that there is a correlation between certain product categories in retail stores by using the method of consumer basket analysis.

First of all, it is important to emphasize that the category management is lengthy, circular and iterative process, not a short-term, linear project. The process involves the following five stages that enable retailers and manufacturers fast adaptation to changes in the market (Nielsen, 1992):

1. Category assessment,
2. Consumers targeting,
3. Planning "merchandising",
4. Strategy implementation,
5. Evaluation of results.

In conclusion, it can be noted that the purpose of category management is to meet customers' needs by appropriate range of products, to attract new customers, encourage customers to buy as much as possible, and thus improve the profitability of a retail company. As mentioned earlier, in this paper we will scrutinize purchasing habits of younger consumers regarding beer as a retail product category.

3. Sample Description and Research Methodology

In order to examine the attitudes of younger consumers towards beer as a product category in retail and in order to examine the factors that influence the buying decision of beer, the primary research was conducted via a questionnaire on student population.

As the main objectives of primary research we can highlight the following:

1. to explain what are the factors affecting the management of beer as a product category in retail in terms of younger consumers,
2. to analyze the purchasing habits and behavior of young consumers,
3. to investigate the level of satisfaction of younger consumers with the contemporary practice of category management regarding the beer retail product category in Croatia.

The questionnaire, as a research instrument, was design upon previously explained theoretical framework. It consisted of 23 questions, 21 questions were closed and 2 were open-ended. There were 18 one-choice and 2 multiple-choice questions. One question was given in the form of Likert scale suitable for assessing the key factors of beer category management and it included 14 variables important for beer as a product category in retail.

According to the classification of samples, the sample on which the research was conducted is an intentional convenience sample. The sample included students from various universities in Croatia. Total number of respondents which have answered the questionnaire

at the end of the research was 312. All respondents were older than 18 and the structure of respondents according to ages is shown at Table 1.

Table 1. Distribution of respondents according to ages (N=312)

Age	Frequency
18-20	17.0%
21-24	62.5%
25-29	17.0%
30 and more	3.5%

Source: Own compilation based on the primary research

4. Discussion of the Research Results

The majority of analyzed theoretical sources agree that consumers and knowledge on their behavior are the starting point of category management in retail. Therefore, in the primary research we wanted to test purchasing habits of younger consumers as a specific consumer group which has to be addressed in retail stores. Moreover, we wanted to examine different variables concerned with the purchase and consumption of beer in order to clarify the key elements of retail category management regarding the beer as a particular product category starting from the young customers' point of view.

As it can be seen in Figure 2, the majority of respondents (43%) buy groceries at the supermarket several times a month, 31% is shopping for groceries several times a week and 9% is shopping for groceries in a supermarket on a daily basis. Remaining part of respondents (12%) performs grocery purchase several times a year; while the lowest number of them (only 5%) never shops for groceries in supermarkets, but someone else is purchasing on their behalf.

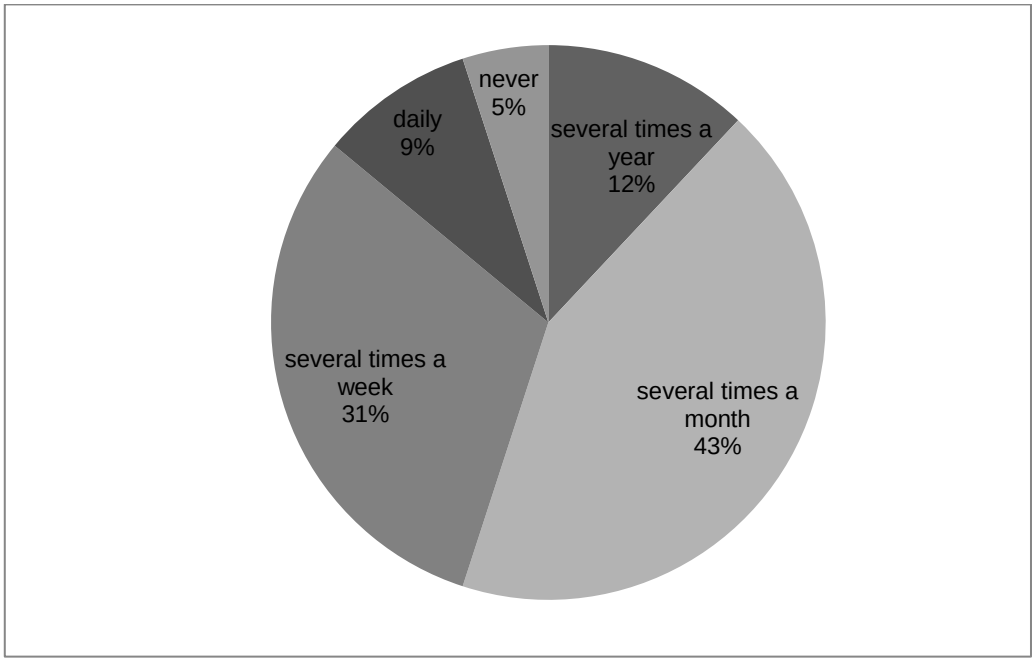


Figure 2. Frequency of groceries shopping at the supermarket

Source: Own compilation based on the primary research

If we compare the answers to the previous question with answers to the question on how often respondents purchase beer we can come to a conclusion how often beer can be found in a grocery basket of respondents. Of those surveyed 23% said that they do not buy beer, which leads to the conclusion that 77% of respondents buy beer on their own, and probably independently decide on the selection and purchase within this product category

(see Table 2). We have examined the habits on the consumption of beer and it can be concluded that 19% of respondents do not consume beer; while 81% consumed beer a few times a year or more often (see Table 2). If we compare the obtained data with data on beer purchase, there can be seen that the number of those who consume beer is greater than the number of those who purchase beer in supermarkets (the difference is 4%), so it can be concluded that this number represents those consumers who do not perform beer purchase on their own, but someone else is purchasing beer for them.

Table 2. The relationship between the frequency of purchase and consumption of beer

	Relative frequency	
Variable	**YES**	**NO**
Beer purchase	77%	23%
Beer consumption	81%	19%

Source: Own compilation based on the primary research

Table 3 shows data on the frequency of purchase and consumption of beer, we can see that out of the total number of respondents who buy beer, most of them 44% buy beer several times a month, then 40% buy beer several times a year, 15% of buy beer several times per week, while only 1% buys beer daily. Based on these data, we can conclude that in the basket of younger consumers the beer is found in 60% cases at least once a month or more often.

As beer consumption is concerned, from Table 3 it can be seen that the largest number of respondents, 43% consume beer several times a month, 35% consume beer several times a year, 21% consume beer several times a week and 1% consume beer daily. The part of population which consumes beer could be even more interesting to retailers since, in 64% of cases the beer is consumed at least once a month or more often.

Table 3. Frequency of beer purchase and consumption in student population

	Relative frequency	
Frequency of beer purchase/consumption	**Purchase**	**Consumption**
several times a year	40%	35%
several times a month	44%	43%
several times a week	15%	21%
daily	1%	1%

Source: Own compilation based on the primary research

Respondents were also asked how much time they spend in front of the shelves with beer during the purchase, in reviewing a product assortment or reading descriptions regarding beer before making a purchasing decision. Most of the respondents (73%) of those who are purchasing beer answered that they spend less than 2 minutes, and none of the respondents did respond that he/she spends more than 10 minutes in the front of the shelves. What leads us to the conclusion that younger consumers at the very entrance to the store know exactly which brand and which packaging of beer will they buy. Thus, there are serious limitations to the effective marketing activities towards this targeted group within the store.

This is also supported by responses obtained the question on the frequency of unplanned (impulsive) beer purchase. The results shown in Figure 3 show that out of those respondents who are purchasing beer, 60% sometimes bought beer without planning, while 29% said they never bought beer unplanned. Only 9% of respondents said that they often buy beer unplanned. While 2% stated that always buys beer unplanned. Since most of the respondents stated that they have never unintentionally bought beer or did it only sometimes (in the sum: 89%), we can confirm the conclusion that younger consumers, when going to purchase beer, generally, know exactly what do they want to buy and, because of that, their purchase, in most cases is not impulsive, but planned (intentional).

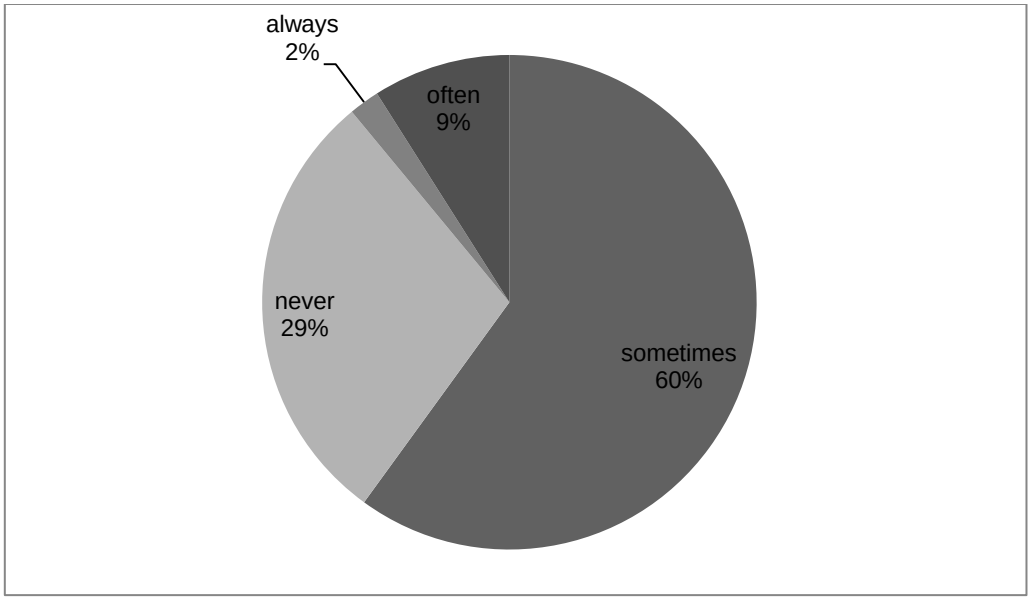


Figure 3. Occurrence of an unplanned purchase of beer (impulsive purchase)
Source: Own compilation based on the primary research

The claim that younger consumers have a preferred brand of beer is even more proven, by the results obtained on the question "Do you have a favorite brand of beer?" Because out of the total number of respondents who consume beer, 40% answered that they have a favorite brand of beer and that it is brewed by domestic manufacturers, 25% of them declared that their favorite brand of beer is brewed foreign manufacturers. And it makes the sum of 65% of respondents who explicitly claim to have the favorite brand of beer. The remaining, i.e. 35% of the respondents pleaded that they do not have a favorite brand of beer, but rather like trying out various beer brands (see Figure 4).

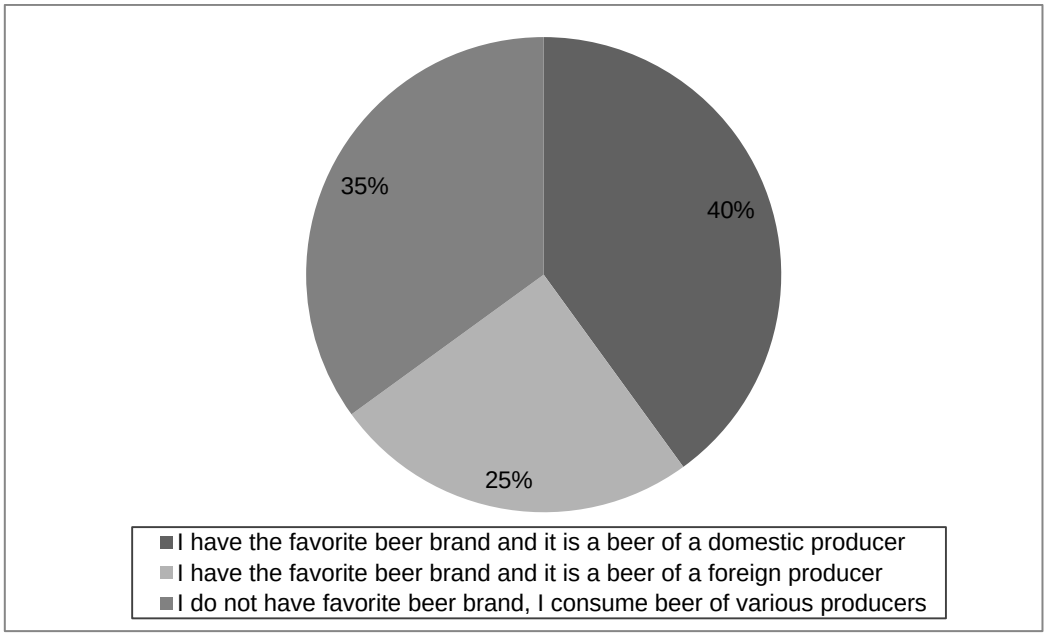


Figure 4. Distribution of respondents according to the existence of favorite beer brand
Source: Own compilation based on the primary research

However, situations in which consumers were willing to change their favorite brand of

beer were tested, as well. The largest number of respondents expressed a willingness to change beer brands (1) if the quality of beer changes, or (2) if their friends suggest to try a new brand of beer and in some other cases that are listed in the Figure 5.

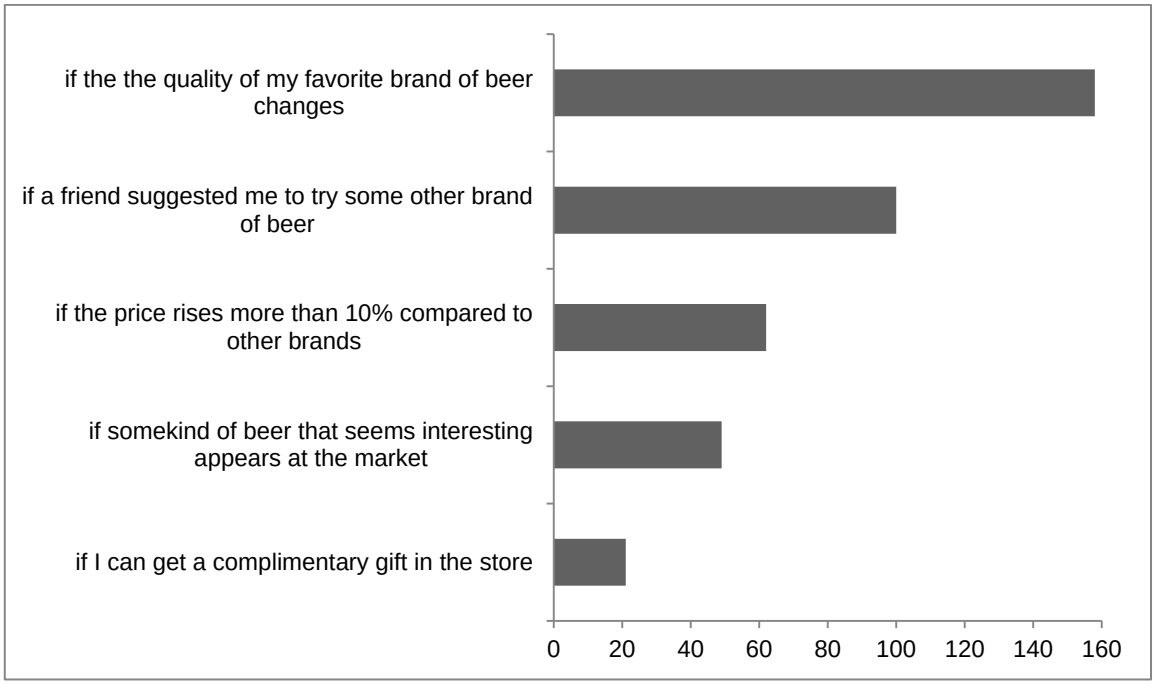


Figure 5. The conditions in which respondents are willing to change their favorite brand of beer (ranked by the absolute frequency)
Source: Own compilation based on the primary research
Notes: respondents could choose 3 offered answers

In the analysis of purchasing behavior, it is important to determine what type of packaging do younger consumers prefer and what kind of packaging of beer do they purchase. According to the results of the survey, out of the total number of students who purchase beer, majority of them (54%) usually buy 1-2 bottles of beer, 37% of them buy 2-4 bottles of beer, then 7% buy 4-12 bottles of beer while only 2.5% buy 12 or more bottles of beer (note: in this particular question we asked participants to convert purchased quantity into equivalent of 0.5 liters bottles). Based on the above, it can be concluded that younger consumers usually buy beer to be consumed in on their own or in a smaller company, and rarely purchase beer for a larger number of friends.

Concerning the packaging, according to the results obtained by those who purchase beer, we can conclude that younger consumers prefer glass bottles of 0.5 liters (45% of cases, see Figure 6). Then, 25% choose cans of 0,5 liters, while 10% pick glass bottles of 0.33 liters, 10% pick plastic bottles of 2 liters, 7% of them prefer to buy plastic bottles of 1 liters, and the smallest number respondents, only 3% of them prefer plastic containers of 1.5 liters. This information can be very useful for retailers when planning the assortment width and depth within beer as a comprehensive retail product category. Moreover, this information can also have a major impact on the distribution of beer on the shelves inside their stores.

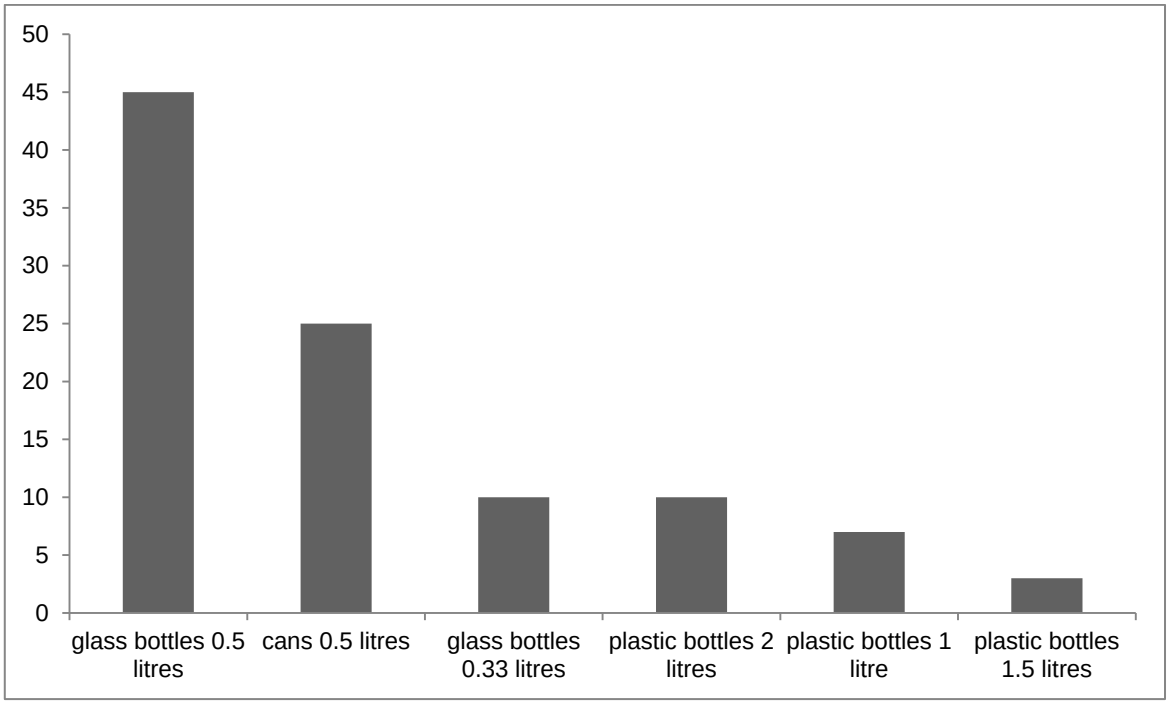


Figure 6. Preferred beer packaging (relative frequency in %)
Source: Own compilation based on the primary research

In advance, we have asked questions on habits related to the beer consumption within this market segment. According to the responses of the majority of respondents, as shown in Figure 7, within the population of younger consumers, higher quantities of beer are usually consumed in the following situations: (1) a smaller company in the bar, (2) at various celebrations, (3) at concerts, (4) in matches and sports events.

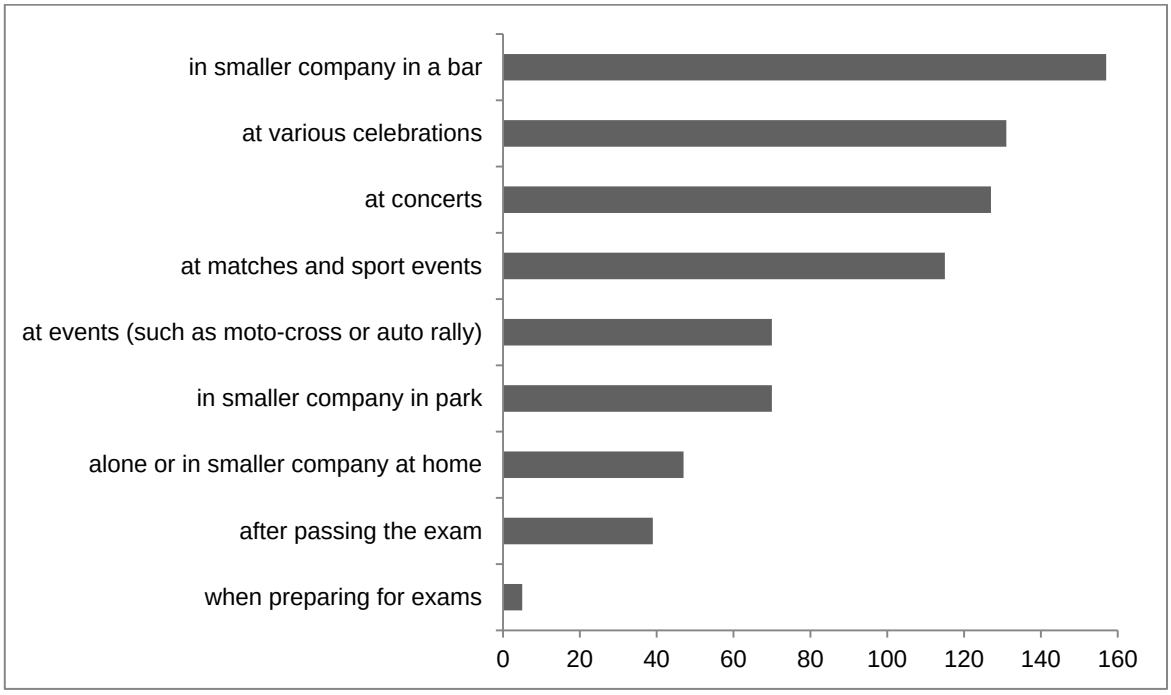


Figure 7. Opportunities in which respondents consume larger quantity of beer (absolute frequency)
Source: Own compilation based on the primary research
Notes: respondents could choose 4 offered answers

In meeting the objectives of this research one of the most important questions was related to the changes in the category of beer. The aim of this question was to explore the extent to which the younger consumers are satisfied with the specific product category and is there a need to change contemporary procedures related to this particular product category in retailing outlets.

Out of the total number of respondents who are purchasing beer, only 40% think that present policies and practices are satisfactory and there is not necessity for changes. But 60% of those who buy beer stated that in this category retailers should make changes to their policies and practices regarding the beer as a retail product category. The mentioned data clearly shows that retailers should make additional efforts to adjust this category to the needs of younger consumers when dealing with beer as a specific retail product category. Most of those who stated that there is a necessity for changes, claim that first of all the price of beer has to be adjusted because it is too high, then assortment has to be improved by increasing the variety of beer on the shelves of retailers. While a smaller number of respondents stated that it is necessary to change the position of beer on the shelves and in store.

In the last part of the survey factors which are influencing consumer's decision making process when buying beer were analyzed in order to determine the most important factors in the management of beer as a product category in retail from the point of the younger consumers. This part of the survey indicated fourteen factors that respondents ranked according to the Likert scale. Grades were form 1 to 5, where 1 meant that factor has no influence on the decision to buy beer, 2 meant that the impact of this factor is very small, 3 that the impact is intermediate, 4 that the impact of this factor is significant and 5 meant that the impact of the particular factor is very high.

Based on the research results, for all observed factors the average score is calculated in order to clarify and demonstrate which of the factors have the greatest impact, and which of them has the lowest impact when making a decision about buying beer in a retail store. The average grade of each factor is shown in Table 4.

On the basis of the ranked average scores shown in Table 4, it is evident that the highest average score of 4.37 has the taste of beer. Second impact factor, based on the average score, is the quality of beer, with the average grade of 4.2. For both mentioned factors, in the majority of respondents gave the highest possible grade (see column MOD in Table 4). The third factor according to importance is the price with an average grade of 3.37. The most of the respondents graded this factor with "3 - medium impact" (see column MOD in Table 4). Based on the above it can be concluded that younger consumers in Croatia, regardless of the crisis, income and situation in the country, still put the taste and quality of beer in front of prices when deciding to buy beer in the retail stores. Also, it is evident that students graded action and free products as the fourth impact factor with an average score of 3.00 (corresponding to value - "medium impact").

On the other hand, information collected in the media and information about beer in the promotional leaflets was not perceived as a key factor. The same is the case with: beer position in the store and beer placement on the shelves in the store. So, based on these research results, it could be concluded that younger consumers don't perceive the problem if the beer is placed far away, or even, at the end of the store or if the beer is placed on the highest or lowest position on the shelf. However, this should be further investigated by observing the behavior of young consumers in the real situation within the retail store.

Table 4. Ranked factors affecting decision-making process in beer retail

FACTOR	AVERAGE GRADE (MEAN)	MOD	MOD/TOTAL
Beer flavor	4.37	5	58.97%
Quality	4.2	5	48.72%
Price	3.37	3	32.05%
Actions and free products	3.0	3	34.94%
Sports and other events	2.88	3	25.96%
Country of origin	2.87	4	26.28%
Packaging	2.85	3	35.26%
Season	2.80	4	25.00%
The percentage of alcohol in the beer	2.65	3	33.33%
Various additives	2.48	1	30.77%
Information about the beer collected in the media	2.30	1	30.77%
Information about beer in the promotional leaflets	2.23	1	32.37%
Position of the beer within the store	2.07	1	38.46%
Placement of the beer on the shelves	2.02	1	41.35%

Source: Own compilation based on the primary research

Notes: Applied grading scale: 1 – the factor has no impact on the decision to buy beer, 2 - impact of the factor is very small, 3 - impact of the factor is intermediate, 4 - impact of the factor is very large and 5 – impact of the factor is very high.

5. Conclusion

In the available literature in the field of retail category management, it can be seen that the consumer perspective is the starting point of the process of category management. If a retailer better knew the behavior and preferences of target groups of consumers the process of category management would be purposeful. In addition, if the product category is more complex to manage, then knowledge on consumer behavior is more valuable.

Beer as a product category in Croatian and European retail is more and more complex; there are more and more suppliers that offer an increasing number of brands of beer and, within individual brands, they provide customers a growing selection of packaging, which means that the complexity of the definition of assortment and pricing policies within this category becomes more and more complex.

Therefore, the aim of this study was to investigate the preferences of younger consumers when buying beer in retail outlets and to determine which factors most influence the decision making in the selection of beer in retail.

Results of primary research show that the majority of younger consumers purchase beer on their own. However, retailers must be aware that there is a certain number of those who consume beer but do not purchase in supermarkets alone (about 4% of younger consumers).

Furthermore, analysis of the responses in the survey points to the fact that younger consumers at the very entrance to the store know which beer will buy and that in this product category for this type of consumer impulsive buying is not the usual way of behavior. Although most of the respondents claimed to have a favorite brand of beer, there are some cases that motivate younger consumers to change the preferred brand of beer, and these are (1) changes in the quality of beer, or (2) suggestions of friends.

In addition, it can be concluded that in supermarkets younger consumers usually buy beer in small quantities (1-2 pieces) and prefer packaging of 0.5 liters, primarily glass bottles, and then cans. This data is very useful to retailers in planning the basic assortment dimensions within the category of beer.

Although most of the respondents claimed to have a preferred brand of beer, it is evident that younger consumers are generally not satisfied with the beer offered by local

retailers, but they think that the category should complement wider choice of beer brands produced by foreign and domestic beer manufacturers. They also state that prices are currently too high within the category. Nevertheless, among the 14 factors influencing the selection of beer, the price is the third factor of importance. Thus, taste and quality of beer are the most important factors that influence the decision to buy for younger consumers in Croatia in this category.

This study has certain limitations. The first limitation is related to the sample, that involved mainly students, therefore the results are relevant for younger consumers while other groups were not the focus of discussion. Another limitation is linked to the understanding of certain issues by the respondents and to the tendency of some respondents to change their opinion in questions that bind to each other. For this reason, certain issues had to be excluded from the analysis in order to maintain the relevance of the data obtained by analyzing the survey results. A third limitation is the way of conducting the survey. The younger consumers such as students have no problem with using the Internet and often use online services like e-mail and social networks; therefore these services are extensively used for data collection. But, for future studies of this topic it would be advisable to carry out surveys in other ways more intensively to accommodate and those groups that are not skilled in using online tools.

Finally, future research could expand by conducting observations of younger consumers on actual retail locations to give a real insight into the importance of product positioning within stores for which respondents in the survey claimed that are not relevant factor in making a purchase decision.

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SOCIAL ADAPTATION AS A SOCIAL PROCESS IN THE ADAPTATION OF MILITARY PERSONNEL

Venelin Terziev* and Sevdalina Dimitrova**

Abstract: This article reviews the social adaptation of the military as a social process. There is an overview of adaptation concepts adopted in science and practice. There is an attempt to classify the types of adaptation based on the nature of the interaction, the type of adaptive environments, adaptive environment structural components and based on the psychological content. Social adaptation process is presented in the following major stages: preparatory stage, stage of psychological tension before discharge; stage of acute mental reactions to entry into "civilian life"; stage of acute mental reactions to exit out of „military life" and stage of re-adaptation.

Keywords: Social Work, Social Management, Social Adaptation of Military

1. Introduction

Social work is a relatively young, gaining distinction nowadays as a rapidly growing branch of knowledge and practical work, whose development has not been completed yet. Having emerged as a social phenomenon and a special area of human activity, it has been on a more frequent basis attracting the attention of those engaged in the field of research and becoming subject of special scientific studies. This means that the studies of leading specialists dedicated to social work are based on methodological approaches, aggregations of methods and technologies, generalized practical work experience applicable to most Social Sciences and Humanities (Dimitrova, 2011).

The concept of Social work is inherently polysemantic. Presently, there are several approaches to its understanding amongst which more significant are the following:

- the area of scientific knowledge about laws governing the utilization of internal and external resources of an individual, a family or a community being in difficult situations of inadequate social functioning;
- specific type professional activity, manifestation of which is evident in rendering governmental and non-governmental assistance to people in order to provide cultural, social and well circumstanced level of life, providing personal assistance to an individual, a family or group of persons;
- rendering assistance within in the context off an of immediate interaction with individuals and families to resolve problems in their mental life, interpersonal relations, social and economic problems;
- helping an individual placed in a difficult life situation, encouraging him to become socially self-sufficient, socially developed and socially active member of society;
- type of activity of individuals and organizations providing assistance to various segments of population.

These definitions indicate that the social work is a particular type of activity of people aiming at providing help or assistance to various strata of society being in difficult life situation, also at creating conditions instrumental for the restoration or betterment of people's ability to social functioning.

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The term “social work” in scientific and academic literature is most frequently defined as professional activity aimed at helping individuals, groups, communities to enhance or restore their capacity for social functioning and creating social conditions facilitating the implementation of this goal. Social work is also seen as a kind of social activity featuring specific levels of accomplishment conditioning its functions, forms and methods.

In the widespread R.Baker’s Social Work dictionary in the list are included: individual social work, team social work, community organization, administrative social work, research, social policy, planning, immediate clinical practice, family and marital practices and other micro practices and also this, what is called the common practice of social work.

The amalgam of technology, research and practical procedures, mode of operation by means of which social work is carried out represents the methods of social work.

Methodology of social work is based on a system of well- substantiated knowledge gained through research and evaluation of practical activities. The theory of social work accounts for the complexity of interactions between individuals and their encirclement and recognizes people’s ability both to be influenced and to alter the effect of multiple factors acting on them.

Theoretical and methodological analysis of social work is based on the historical approach and identification of sources for the emergence of a phenomenon in the past.

Historians track down roots of compassionate attitude towards a fellowman still in the customs and habits of the Early Slavs. S. M. Solovyov notes that unlike the warlike Germans and Lithuanians, ridding of "needless, weak and infirm" countrymen and killing captives, our distant ancestors used to exhibit mercifulness to old and little tribesmen, also to captives, who, after a certain period of time could return to their homeland or „to remain living with the Slavs as free people or friends”. Providing shelter and affection for strangers, they are conspicuous for their rare hospitality.

Against the background of that what was stated above, scientific understanding of social work in Bulgaria begins with the manifestation of social role of the phenomenon of charity in public life, as well as with the attempts various philosophical, psychological, psychotherapeutic, sociological and medical approaches to be applied for the purposes of scientific justification of social protection of people, helping the needy.

Nowadays, theoretical justification of social work is developing in three main directions. First, the place of social work as a branch of knowledge amongst disciplines such as Social Philosophy, Social History, Political Science, Sociology, Social Psychology, Cultural Studies is determined. Second, an own theoretical constant of social work as a specific object of study is sought; and third, its interaction with other human and society science is shown. Taking into account that the social work is based on human factor understood as an individual, team and team members’ relationships based on the awareness, the social nature of prime priority of its activity conditions the necessity of knowing the general and specific factors. As to general factors, attention should be given to general culture, special functional culture, factors of motivation, while the specific factors are associated with the manner of management decisions making, managerial intercourse and management responsibility.

Sticking to the logics of the study, our research is focused on a specific area of social work, such is the social adaptation of servicemen at the end of their career and making them ready for positions in the public and private sector of economics [Human resource management concept of the MD, BA and structures directly subordinate to the Minister of Defence, S., 2006; Armed Forces Human Resources Management Doctrine (NP -1), an Ordinance of the Minister of Defence of the Republic of Bulgaria No.OX- 179 dated 06.03.2013] as a criterion for motivation and increasing the activity of the human factor in the field of security and Defence. Moreover, in contrast to previous studies, refracted through the prism of military department social policy, this study is aimed at offering the social and scientific knowledge a new perception of social adaptation of servicemen leaving the ranks of the Armed Forces and Bulgarian Army in accordance with the scientific understanding of the social work.

2. Features of Social Work with Servicemen at the End of their Career

A baseline of our research served the specificity of social work with servicemen discharged from military service. The need for transparency and equal treatment of users of social services, paying respect to dignity of military brings out the role of social work with them (Terziev and Dimitrova 2013a; Terziev and Dimitrova 2014a; Terziev and Dimitrova 2013b; Terziev and Dimitrova 2014b).

Hundreds of professionals moved from the army in the civil sector are able to make a substantial contribution to the reconstruction of Bulgarian society and to add value. Things are different in real life, where their experience and skills often give the impression that they are unnecessary. People who devoted their youth to the colors, as a rule are difficult to adapt to conditions of civilian life. Such a situation is not only immoral but also socially dangerous. People with special military-applied skills and knowledge actually form a new "risk group", especially when they fall come to the attention of criminal world. Very indicative on this issue are the various reports and analyzes of the Ministry of Labor and Social Policy and the Ministry of Defence.

The data are indicative that a third of them have “finding a job” offers in the security services to various private organizations, banks and/ or specialized licensed private security units.

The established practice shows that some of career service officers are experiencing serious difficulties finding a civil profession. Although highly qualified, many of them cannot find a job for months in a row, lose the continuity of their working carrier or get deskilled. Working out the causes is based on an analysis of sociological and psychological studies materials enabling us to define the specifics of their self- and personal adaptation. Accordingly, the age groups of leaving the ranks of the AF and BA servicemen, social adaptation of who finds its manifestation in different ways.

- Differentiation based on Age Criteria:

a) Servicemen up to 30 years old: In a rapidly changing security environment it is difficult to provide precise framing of causes leading to discharging from the army. Observations show that a young officer decided to leave service if he feels unable to fully realize his potential in military service, comparing his life journey and achievements with the way existence he has have and how successful their coevals in "civilian life" are, or if he has chosen this profession by accident. This is the most mobile part of reserve officers. Discharged under honorable conditions or released members are not eligible for pension and for some time they have to face financial difficulties, especially those of them who have a family. They need such training, that would provide them quick and tangible revenue and growth in their professional career. This is the most successful part of the servicemen in the context of retraining/ acquiring additional qualification in civilian occupational specialty.

b) Servicemen aged 30-40: Many of them are forced to leave the ranks of AF and BA due to staff reduction and structural reforms. This does not always coincide with their personal plans. This category leaves resentful, prone to negatively evaluate their perspectives, quite often with aggressive attitude to others. The combination of pecuniary burdens and substandard living conditions leads to crisis states of mind and personality. Despite the difficulties, the members of this category are trying to maintain emotional and mental flexibility, actively seeking new forms of behavior.

If the representatives of this group of military are provided appropriate positive solution to overcome the crisis, the probability for them to enter into a period of high productivity in a variety of areas of activity will increase. This is that part of discharged servicemen who need a thorough and adequate counseling, professional advice, social and legal support.

c) Servicemen older than 40: This is the group of military who have served their time and achieved maximum self-actualization within the army service. They have certain

privileges and material welfare. They strain after activities enabling to keep the attributes of their past power and former social status, however, without striving for particularly complex types of business due to the fact that such an endeavor requires procedures of acquiring a new major, knowledge and skills. The process of serious training for them is unattractive, they tend to offices in the administrative and economic control departments of the state and public administration and to various activities /control and security/ in municipal administrations in the field of education and financial bodies. When choosing their further life path they find it easy to turn to various organizations.

In considering the main problems of socialization and adaptation of servicemen leaving the military service and their transition to civilian life environment resulting from their economic, age, psychological and social characteristics and their social status in modern conditions, the importance of social work targeting this category should be taken into account. This necessitates further development of already existing and newly developed forms of social work. Moreover, the servicemen social protection system has historically become a part of the national policy of a state. As such it should be further developed by actively interacting with all executive bodies and sectors of life in a country. In this context, attention should be given to appropriate best practices and their adaptation to our environment, accordingly.

3. Foreign and our Experience in the Field of Social Adaptation of the Military

In organizing the work on career development and social work with servicemen putting an end to their military career, regardless of reasons, as well as the work with their family members at national level, taking into account international experience is of significant importance. Undoubtedly, it is at least nonsense to believe that this experience can be transferred to our terms unalloyed, directly. In order to be used in the work of our social services, its bringing in conformity with Bulgarian specifics is a requirement.

Almost hundred years' experience in the development of social work not only determines the modernization of the classical social thought paradigm, but also provides scientific foundation for new trends in the social reconstruction of society (Dimitrova 2013; Asenov and Hadziev, 2011).

Theoretical growth of scientific knowledge in the field of social work in many countries of the world has been developing mainly in two directions. The first trend relates to promoting the importance of behavioral approach in the system of psychological explanation based on the theory of knowledge, on the domination of cognitive orientations. The second aspect is related to enhancing the interest in social work theoretical approaches.

In the long run, systematic concepts of social protection, social guarantees, and social services aimed at rendering assistance and support to people finding themselves in complicated life situations have been formed in the knowledge of social work. At that, orientation towards an overall approach to theory of social work, to the establishment of a legal foundation of social technologies is promoted.

- Comparative analysis of international practice in the system of conversion training and social adaptation of servicemen who undergo transition to civilian life has provoked us to look for an answer to the following questions:
- what military personnel classes leaving the ranks of AF and BA are covered by this system;
- how the financing of military staff's preparation for the transition to civilian is arranged and who is irresponsible for the core measures in this process;
- who is carrying out the process of social adaptation and what structures and organizations within and beyond the competences of the Department of Defence are involved;
- what is the technology of organization of the process of professional reorientation, conversion training and assistance in finding the servicemen discharged from military duty a job;

- what is the time span for carrying out the work on conversion and social adaptation of military before and after their discharge from military service;
- how the availability of practical skills and competences acquired in the course of regular duty by those discharged from military service is reported;
- what is the ratio of discharged servicemen intending to undergo retraining in one civilian occupational specialty or another and those intending to turn to one business or another in such civilian and educational field at a later stage?

In pursuing an answer to these key questions, we turn to the best practices in the field of conversion training and adaptation of the military personnel discharged from service and the members of their families. And it is quite understandably for us, as a member state of NATO, to focus on the practices and experience of the USA and many EU member states of this structures in this area.

In the U.S., in the late 80s of 20th century, the Pentagon, the ministries of the Armed Forces, many military organizations (Associations of the US Army, Air Force, Navy, Officers, Seniority, Sergeants, Reserve Officers) assisting those who left military service created a special office aimed at providing employment services.

Employees of this department have developed and implemented a special program for "linking" military and civilian fields, where the individual willing to find a job can obtain information about business sectors he/she would be appropriate for and where specialists in the particular field are needed. Close cooperation between the Department management and companies, corporations, government and private labor offices is essential for achieving this is of exceptional significance. Very useful in boosting and simplifying the job finding process are the published handbooks containing variety of information: starting from tips for servicemen moving from active duty to reserves to requirements for completing the necessary questionnaires, data to be entered by using the modern computer technology. Today, these handbooks are available in almost all libraries of the U.S. military units.

Care for soldiers upon termination of military service in the U.S. by legislation is a duty of the state authorities. Moreover, the enlisted men and N.C.O. who do not receive pensions are eligible for unemployment benefit paid from a fund financed only from the budget of the Ministry of Defense. Military reservists have priority in employment for positions at government offices, more particularly, certain categories of veterans are given priority in employment at government organizations. What is the question about is that in accordance with the legislation of the U.S. (Servicemen's Readjustment Act of 1944, Veterans' Education and Employment Assistance Act of 1976 and "Civil Service Reform Act of 1978) hiring priority in employment at governmental organizations enjoys the participants in combats and having received government awards or disability during service. Moreover, for those enrolled in the army after September 7, 1980 there is a requirement for them to have served in the regular armed forces for at least two years (this condition does not apply to people with disabilities).

No less noteworthy is the attempt to solve the social problems of servicemen in the United Kingdom and Northern Ireland. All British military are serving under contracts. According to The Queen's regulations and orders for the army commanders are responsible for ensuring access to information and advice on all aspects of adaptation to civilian life for all soldiers in all ranks and in every period of their career.

Specific features of the British practice in solving the problems of adaptation of soldiers passed in stock are the following:

- all measures are carried out at the expense of the state and not at the expense of employers or military;
- the Ministry of Defence provides servicemen advising on these issues two or two and a half years prior to the termination of military service and one year after;
- servicemen are eligible to retraining after five years of service, at that two or two and a half years retraining for the regular is mandatory, while for the officers-voluntary;
- servicemen are entitled to receive a grant of 534 pounds sterling (the amount has not been changed for a number of years) for retraining courses outside the system of the

Ministry of Defense (as against our practice established where the amount allocated for retraining of discharged servicemen is cut at regular intervals- currently 350 BGN for a discharged serviceman);

- 25,000 servicemen are being released every year; partial support is provided to all military and full- to 50% of the discharged;
- in addition, the Ministry of Defense reimburses the servicemen travel and accommodation expenses during the conversion retraining;
- duration of conversion training depends on years of service: four weeks - upon completed five years of service, five weeks - upon eight years, six weeks - upon twelve years; seven weeks - sixteen years of service.

Support of the military in the UK takes place on three levels. This includes: general consulting at the unit conducted by the officers responsible for the employment of released officers, the level of support provided by the respective commanding using respective-consultants (in Navy- 8 people; in the Air respective- 11, LF -22 people); the structure, in which along with the Ministry of Defense participates a private company (the structure includes the Ministry of Defense, Veterans Job seeking Office, Coutts Consulting Group and the Bureau of Vocational rehabilitation).

A distinctive feature of French policy in the field of social adaptation of the military is the established complex "assembly - training - retraining" taken as a whole and offering possibility for the servicemen not only to successfully carry out their service in the army, but to succeed when they return to civil society within the frameworks of their second career.

Since 22 February 1996, immediately valid and effective as at the date and time of its announcement by the President of the French Republic, the decision to move the army into a professional, the policy for retraining of the military staff is an integral part of the personnel management policy. This makes it necessary to provide for such a career that allows for a serviceman to serve within that specialty at a particular point in time and that can be used at a later stage - in the civil service. This also justifies the necessity of validation of military diplomas in accordance with scale of state diplomas issued in the education system by the administrative committee with the Ministry of Labor. Coordination of the procedure for recognition of military diplomas military is carried out by the Department of occupational mobility.

Yet another feature of the French policy in this area is the significant differentiation in social work care provided to particular military personnel classes (Navy, Air Forces, Land Forces). Thus, a structure designated as Mobility in the Navy was established in the Navy, encompassing five retraining departments. Coordination of each of these departments is carried out by an officer-consultant in charge for the region. Their staff is looking for employment opportunities in direct contact with companies (more than 4,000 different companies use the services of Mobility in the Navy structure).

Existing legislative basis for conversion training includes:

- A common normative instrument for military personnel (a Law of 13 July 1972) with amendments introduced with the Law on measures to help military within the frames of transition to a professional army of 19 December 1996. According to this act, career regulars and servicemen on contract are entitled to twelve months of leave for training, allowing them to pass training tailored to their career project. Moreover, during the first six months of retraining they receive 100% of their salary and over the next six months - a salary, but without payment of premium and bonuses. They also have the right to work (internship) at an enterprise and to get remuneration there, though it can reduce the military salary.
- Three decree adopted in May 1997, regulating the conditions for granting leave for retraining (the leave is granted by personnel departments).
- A common regulation of 22 April 1998 of the General Secretariat of the Executive Office to the MD and the General staffs of different military defines the principles underlying the new policy for retraining of personnel.

There is a Council on personal retraining operating to the Ministry of Defence, researching and dealing with the whole range of problems, drawing conclusions and recommendations on projects of the Ministry of Defence.

The panel of the Council, chaired by the Minister of Defence, consists of twelve representatives of staffs and controls, seven members appointed by the CSFM, the president of the Association of Social Adaptation of Officers (ARCO), representatives of various associations of ex- servicemen, a representative of the Ministry of labor and representative of the Ministry of National Education .

Responsibility for the retraining of personnel is assigned to the Department of occupational mobility (MMP -Mission pour la Mobilité Professionnelle) founded in 1982, that develops and defines together with the various armed forces a policy for retraining of personnel under the leadership of the management of military and civilian personnel (DFP).

The first interview for reorientation is in the competences of the Department of Defence. Depending on situation, it provides the applicant an opportunity to refer to the officer-consultant at a training center (CIR) or ARCO.

In Germany the organization of retraining process, professional orientation of military personnel on duty and after leaving is the competences of the administrative and economic management of the Bundeswehr (its units within the Federal provinces). Under the command of Administrative and Economic Office VI in Bavaria there are 21 000 people, 17 units (district military administration). A distinctive feature of the German experience is that professional orientation and retraining at the end of the service is part of a general policy for training of the military carried throughout the service. Funding for these activities is charged to the budget of the Defence Department.

During the late 1960s a resolution was adopted according to which every officer of the Bundeswehr is required to have higher education. To this end, the officer either goes into the army after having completed university education, or obtained it during the service. In a related move two military universities have been established (in Hamburg and Munich). Eligible for these universities were military servicing on re-engagement who have served not less than four years and wishing to become officers - professionals.

Courses at these universities are conducted on a more intensive basis than at ordinary civil universities. The total period of training is significantly reduced (3-4 years) by organizing training trimesters (i.e. calendar year training lasts three semesters, hence the name „trimesters"). Students receive a salary, wear civilian clothes. Once a week they have only military training. Specialties in which the training is conducted is determined according to the needs of the Armed Forces.

During the service, through the mediation of the Career Development Office to the Bundeswehr, training in civil disciplines and professions and further qualification of contract servicemen in the military- vocational training is conducted.

Upskilling takes place in a special school to the Bundeswehr at the end of military service. There general training and special courses in majors leading to awarding of professions as economist, tutor, engineering technician or electrician are taught.

Upon completing the service, assisted by the Career Development Office to the Bundeswehr, the officers receive special education and financial aid at a particular office with allowance for length of service, compensating jobseeking and relocation expences incurred.

It is noteworthy that in the Bundeswehr considerable resources are spent on advertising military service. In support of this was the large-scale campaign was conducted in 1996, on organization of which almost half of the budget allocated to attract recruits (about 11 million) was spent.

The analysis shows that military service under contract in Germany is a temporary job. Civil future of servicemen is protected by the Social security of former Bundeswehr officers act providing insurance for years of service (monetary compensation for the interim period and cash assistance for the transitional period) and professional qualification.

The practices of developed countries in Europe (the UK, France, Germany, etc.) confirm that servicemen discharged from military service prepare for civilian life prior to their

releasing from the Armed Forces and the organization of this process is a responsibility of the ministries of Defence, and of course, subject to financial support from the state.

Adoption of foreign experience in social protection of servicemen requires taking into account the complex of domestic and foreign policy factors influencing the processes taking place in a particular state. The existing models for social protection of servicemen worldwide can be divided into institutional, partially institutional and extrainstitutional.

The institutional model is typical for the countries with developed legal systems, industrial or post industrial economy, democratic state system. There are clearly defined conditions of operation of the armed forces, a comprehensive civil control is carried out there, a functioning contract-based service system and an established legal framework for protection of the honor and dignity of the military. A well-developed system for material and social security of servicemen and members of their families allows the state to provide them with living standards higher than the national average. Institutional model defines the high prestige of military service in the public mind and its attractiveness for a significant part of the younger generation.

In countries where a social security institution is just beginning to form and the system of guarantees, compensations and benefits for servicemen sometimes has a casual and fragmentary character a partially institutional model is formed. There, the peculiarity of the legal status of the armed forces and the military represents an opportunity to involve them in extrinsic functions implementation. In some cases, such decisions of the military and political leadership of a country could be taken in concurrence with the legislative authorities. Living standard of the military in partially institutional system is comparable to the average standard of living of the population. The prestige of the military service is substantially lower than in terms of the institutional model; military service in the public perception is ambiguous. There are certain difficulties with the provisioning of the armed forces. The choice of the military profession is often driven by the more favorable socio-economic conditions of life outside the army.

Extrainstitutional model is formed in countries where the military are an independent political force, being in power (or having unlimited influence on it). There, the military actually participate in political decisions and, if necessary, use firearms. They act under the wartime laws and conduct military dictatorship. Army members get considerably higher socio-economic benefits than civilians. The military cause fear and tension.

Social protection of servicemen in Bulgaria for the present is of partially institutional nature, and sometimes, in a number of signs is reduced to extrainstitutional model. The way ahead in its further development depends on the specific policies applied. More preferable is the way of strengthening the legal basis for the social protection of servicemen and provisioning plenty of the socio-economic and socio-cultural mechanisms, which means a move towards institutional model.

The analysis of the legal regulation concerning social protection of servicemen applied by the member countries Euro-Atlantic structures allows to highlight a number of specificities. Attention, in our view, should be given to the following:

- First, they regulate the status of the military both as a citizen, and as a special subject of public relations;
- Second, the underlying principle of legal regulation of the servicemen social protection system is the principle of compensation for specific burdens and hardships of the military service;
- Third, the special status of the military, the complex of their rights and privileges is constitutionally entrenched.
- Fourth, the effectiveness of military legislation is conditioned by its systematization.

A distinctive feature of the legal regulation concerning social protection of foreign armies servicemen is the establishment and effective functioning of special structures to the state administrative bodies within the immediate jurisdiction of which is the settlement of the said issues.

European practice gives evidence that parliamentary scrutiny is the basis for a broad and developed system of civil control over the armed forces and the entire military. In Bulgaria, there are still many gaps in the implementation of parliamentary scrutiny, although there have been certain changes in this direction. However, a number of questions concerning armed forces activities that have significant social importance remain outside the regulating effect of the National Assembly. Speaking of this very day in our country, it is far from complete implementation of the possibilities inherent in the foundations of parliamentarism.

The existence of a network of public organizations at different levels is typical of the established in the Western countries social protection systems; there is a steady tendency to boost their role. Thus, the French experts consider it necessary to establish within the military organization special institutional frameworks for open discussion and early detection of problems at regiment (ship) level.

Notwithstanding undoubted success of the military social protection system development of foreign countries, they also have a number of unresolved issues. This is primarily the problem of housing. For example, many U.S. military garrisons have no living conditions for the families provided and they are categorized as units where family reunification is not allowed. Family separation creates many financial, psychological and social difficulties. Servicemen arriving at the place of service with a family are paid travel expenses for 60 days. In practice, it often turns out that this money is not enough. Quite often the soldier is unable to find accommodation for his family.

In Germany, with all that there are sufficient lodgment opportunities, they often do not meet the modern requirements, or inappropriate in terms of location. All this creates difficulties for the families of soldiers when it comes to children going to school, finding jobs for women and the loss of previous social environment with all associated negatives in general.

In all armies of states, subject of this study, without exception, the social protection of servicemen families is a topic of the day. In the U.S., the total income of an officer's family is often lower than the family income of civil servants in the federal administrative bodies. Soldiers and their families are sometimes concerned about that to what extent they will do until the next monetary allowance. Family's dissatisfaction with the lifestyle of servicemen is pointed out as a major barrier in the way of continuing the military service contract.

Social and psychological adaptation of soldiers passed in stock remains a problem of the day. They are changing the profession in advanced age, when others have made a career in civilian profession. As a result, on the background of tense situation, special difficulties are faced on the labor market, being exacerbated by the fact that in many countries, in Germany in particular, there is no protection against unemployment for ex-servicemen under contract.

Experts in the field of innovative military education in Bulgaria believe that undiscriminated borrowing of foreign practice is extremely dangerous. Meanwhile, others believe that the specifics of Bulgarian lifestyle, ideological heritage, mentality of the population should not be exaggerated, since during the transition period they have not been so much significant factors of social development, as could be expected. Much greater impact has the state of economy, which crucially affects social processes, limitates the choice of orientations and scales of social and political events, rising sometimes insurmountable barriers in the way to implementation of social policy.

Thus utilization of foreign practice and experience should be seen as a guideline to form a system and mechanisms for social protection of servicemen. With all steadiness of the historical and national circumstances, they also undergo certain changes. Representative in this respect is our legal system, in the development of which the role of the state determinative. Such a role for the state gives the Bulgarian legal system that unique character that sets it apart from the legal systems of other European countries. This means that when taking certain legal concepts, models, and rules of the law, we must recognize the specific nature of our legal system that can radically transform foreign ideas and models. In

this vein, we consider it necessary to trace our country-specific practice for social adaptation servicemen, discharged from military service.

4. Procedure for Social Adaptation of Servicemen in Bulgaria

Solving the complex task of creating a system of social protection of servicemen, as a rule, affects all aspects of the life of society. Fundamentally new questions appear to economic, social, intellectual and other spheres. Solving a similar problem in Bulgaria is complicated by the significant reduction of the army, its reforming by applying professional principle of completion. Taking into account the international experience, it can be assumed that similar changes at home can cause new set of difficult and complex problems. In this case, attracting foreign partners and adopting joint training programs of soldiers moving into stock would be useful. Measures and actions in this area should be directed towards the implementation of programs and projects for motivation, training and retraining, job placement, starting own business and conversion of military property. Feasibility of the study of the labor market determines the need for professional orientation. This requires involvement of the military in training courses, providing learning opportunities at higher educational institutions awarding majors sought by employers, making them ready to start their own business, helping them with job placement. Accordingly, provided funding for training courses should be in proportion military budget - serviceman (70:30). Such an approach shall promote the aspiration for development of those servicemen who are subject to retirement or otherwise leaving the ranks of the Army and prepare them for self-actualization in civilian life. Training courses should be tailored to the requirements of the labor market (Terziev and Dimitrova, 2013c).

In accordance with the above, the main types of social services can be classified as follows:

- professional orientation;
- assistance in professional retraining;
- jobseeking assistance;
- legal assistance;
- social and psychological support;
- assistance in setting up, small business enterprises;
- information and consulting services;
- work with the families of servicemen who died while performing their military duty.

Professional orientation and the choice of civil profession is the first step in preparing for the transition to stock. Assistance with professional retraining includes career choice and direction to professional retraining at educational units or professional training centers.

As to the jobseeking, it consists in rendering assistance on the part of specialists-professionals when choosing a future profession, and seeking suitable placement.

Legal assistance consists in information-consulting sessions with young officers on the mortgage system of housing of soldiers, providing legal advising to soldiers who have been wounded and more.

Social and psychological support includes psychological diagnosis and psychological help using modern methods and also psychological support to servicemen found themselves in a difficult life situation.

Assistance in the establishment of small business enterprises among servicemen discharged from military service is provided during information meetings on development of entrepreneurial activity among retired military personnel and their family members and others.

Information, consulting and methodological support include: disseminating information about the social protection services provided to servicemen, to those discharged from military service and their families /Labor Office, Social Assistance Directorates, etc./; creation of information-analytical data base on social adaptation issues; working out, publishing and distribution of guiding and reference literature; organizing information interaction with the

media, with departments and organizations dealing with social protection of servicemen moving into reserve and their family members; working out, publishing and distribution of methodological instruments in relation to organization and carrying out military social work .

An important point is that the process of social adaptation initiates at the very military formation, before a serviceman is discharged from military service. To this effect, group and individual motivational talks are held, with the participation of experts from the National Employment Agency, and its territorial divisions, when possible. Motivation lectures within groups are organized by commanders and coordinators within the formation, being helped and assisted by consultants in adaptation from the District and Regional Military Departments to the Central Office of Military Districts /CMD/. This means that before being released, a serviceman acquires an initial notion of the process of social adaptation and the possibilities for self-actualization in civil society.

It is noteworthy that the legislative basis (Article 162, item 2, Art. 164 and Art. 169 of the Act on Defense and Armed Forces of the Republic of Bulgaria) is indicative that upon release from military service, including due to unfitness while performing or in connection with the performance of his duties, the military are entitled to a single training course with a duration of up to six months. For the duration of the training they are provided with additional paid leave.

The choice or refusal of the military to enjoy their rights to participate in the activities of social adaptation is certified at the time of serving of the notice or service termination order, and to this end they personally complete a Registration card No. 1 in the established form, that is attached and stored it the personnel file.

Adaptation coordinators in formations are those, who conduct individual talk with the individual released from military service and perform its registration in special log. They provide the registered serviceman a copy of his Registration card No.1 and inform him of the time and place of his first visit to respective Military District/ Regional/ Central Military Department or Division/. Registered soldiers are issued to a recommendation /personal profile/ by the human resources /personnel/ office, signed by the commander (chief) of the formation.

Cooperation in conducting the process of adaptation of soldiers moving to civilian life is rendered by the Central Office of Military Districts and subordinate Military Departments, Regional and District Military Offices.

Servicemen discharged from military service willing to participate the social adaptation activities in their first visit to the structure of CDM submit the package of documents required (a copy of Registration form No 1 or an expert decision issued by the Central Military Medial Commission to those discharged due to unfitness, a recommendation /profile by the commanding officer (chief) of the military unit).

Adaptation consultants to the structures of CMD are responsible for the proper and timely delivery of information on the military documents for registration and filing up of documents requirements, employment and training projects, programs and measures carried out by the national, regional and local structures of Employment Agency and other employers and training organizations or job vacancies, relevant requirements, application procedures and information of employers.

During the first visit, a serviceman, assisted by the Military Office/ Regional, District or Central Military Department adaptation consultant should complete Registration Card No. 2m as per the established form, thus being registered in a special log. Every visit of the officer to the CMD structure is recorded in the logbook.

Each registered serviceman is being elaborated to an individual plan defining procedures for social adaptation activities and a schedule for subsequent visits to the CMD structure. The individual plan is drawn up by the adaptation consultant together with the freed army member who follows the implementation of the plan and the recommendations of the consultant.

Professional orientation of the military discharged from military service requires information on occupations and activities, employability requirements, training organizations

and institutions, forms of study, documents issued upon completing the study, employment opportunities in the labor market. The choice of solution for civil profession/ specialty and referral to a related appropriate training is assisted by adaptation consultants to CMD structures. They are the ones who carry out individual or group (a group of at least three soldiers) motivational talks aimed at adapting the participants to the market environment in civil society. Within the scope of consultancy are included problems such: identification of knowledge, skills and experience gained during military service; formulation of social adaptation objectives and development of an individual plan; working out strategies for effective job searching and applying; getting acquainted with trends in the labor market, the sources of information on job vacancies; analysis of jobs adds and choice of jobs for application; application documents preparation: CV, recommendation/ profile letters and forms; interview with the employer; job offer assessment etc.

There is a possibility for a single return trip on account of formation at the place of residence to the place where motivational talk is held in the case that motivational training takes place at the CMD structures outside the place in which the serviceman lives. In these cases, subsistence and accommodation expenses are paid by the serviceman.

Further consulting to soldiers and/ or their family members, self- seeking psychological assistance related to effects of change resulting from the transition from military to civilian profession and lifestyle is provided by medical teams consisting of appropriate professionals. The military, released from military service is granted the right to choose a qualification course and training institution. They furnish the commander (chief) and the consultant of respective military unit a document issued by the training institution evidencing his inclusion in a training course not later than three days prior to the course. This is the ground for him additional paid leave for the duration of the course to be granted. To this end, the certifying document from the training organization shall contain the following information: personal data of the serviceman discharged from military service; place of employment; the name of the course; training period; number of classes for the training period; the price (tuition fee); a license/ certificate - training qualification document.

Regular attendance is required by course-enrolled servicemen and successful passing the exams at the end of the training. In case a serviceman quits the course, on his own initiative including, he should immediately inform the commander (chief) of formation and the head at the CDM. Having completed the course, the military is obliged in a 5 days-term to present to the CMD all the documents issued by the training organization certifying completion of the course: an original invoice and a cash receipt, a copy of the license/ certificated issued by the training institution .

Financial provision for participation in courses is ensured by the Ministry of Defense. On the basis of supporting documents evidencing successful completion of the training course soldiers are paid 70% of the training cost, but not more than the maximum amount of funds amounting to BGN 350.00.

Consultants to CMD assist the registered military discharged from service in seeking job, providing information and directing them to the regional employment services, labor offices and other employers' organizations to be successful in the labor market. More particularly, they provide them information about: suitable jobs, including at another location in the country or in other countries; involvement in projects, programs and measures for employment and training carried out by other institutions and organizations; directing injured during or while performing their duties to programs and projects that support their social integration; including and increasing their employability and employment; preparation and participation in employment and information exchanges; meetings with employers and other forms of employment opportunities, organized in collaboration with the structures of the Employment Agency and other institutions and organizations.

Those willing to start their own business are assisted by the adaptation consultant, who advices them and refers them to training courses providing entrepreneurial, managerial and business skills; furnishes them with promotional and information materials to start their own business; inform about regional, national and European programs aimed at supporting

entrepreneurs, crediting sources and other relevant information about starting their own business.

Preparation for starting own business is directed at promoting activity and adaptability of the military discharged from active service, with the clear idea, desire and attitude to provide career development through self-employment and to start their own business. The relevant governing documents in relation to social adaptation activities implementation have been provided for at the CMD (the Act on Defense and Armed Forces of the Republic of Bulgaria; Ordinance No. H-29/12.11.2010, the SG, item 95/03.12.2010 on conditions and terms of adaptation of servicemen of the Ministry of Defense, the structures directly subordinate to the Minister of Defense and the Bulgarian army upon discharging from military service and the amendments thereto in the Ordinance promulgated in the SG, 41/01.06.2012; Cooperation Agreement between the Ministry of Defense and Employment Agency to the Ministry of Labor and Social Policy of 07.06.2011; Joint Regulations of the Ministry of Defense and Employment Agency 2011; Instructions of the Director of Human Resources Agency - MD on social adaptation activities within CDM, Military Offices and Regional military departments; CDM concept for improving the model for social adaptation of servicemen released by the Ministry of Defense, the structures directly subordinate to the Minister of Defense and the Bulgarian Army; Instructions No. 03/05.07.2012 of the Head of CDM concerning organization of activities aimed at adaptation of servicemen to the Ministry of Defense, structures directly subordinate to the Minister of Defense and the Bulgarian Army upon releasing from military service (Ministry of Defense of the Republic Bulgaria, 2006).

It is noteworthy that our country has gained experience and methodological basis for the social and adaptation of the military honorably discharged from active service. Based on best practices- own and these of the member states of the Euro-Atlantic structures we considered appropriate to state the right direction to increasing the efficiency of social adaptation of servicemen released from military service.

5. Main Directions for Optimization of Social Work with the Military, Released from Military Service

Many of the servicemen released from military service have a good education and sufficient social status. After moving in reserve, they are left alone with their problems and often become absolutely defenseless in the modern world of exchange relations.

It is necessary for former military to be involved in the entrepreneurship in order to create additional employment opportunities. Besides social and economic problems, the military that have moved into reserves and their family members also face difficulties in finding job, housing problems, family wealth impairment, little accessibility to health and recreational activities. All this is due to the fact that there is no an effective social policy to support such families. According to the representatives of all the departments main cause, giving rise to this problem, is economic.

Studies allow to conclude that the establishment of a system for social adaptation of the military released from military service presently refers to the modern stage the most important directions in the social policy.

Nowadays, the need for further development of social work and various social technologies, giving significance to contemporary experience in the sphere of social services, becomes even more relevant.

An elaborated approach aimed at establishing a network of social service agencies, at creating a truly effective and necessary social protection system should be applied. Professionalism and morality should be regarded as personal qualities that every single social services specialist must be in possession of. Coordination between various administrative departments for social protection of the population, education, health, employment, etc. should be also enhanced- to meet the needs of the population in general.

The main obstacles to increasing the effectiveness of social work with servicemen passing to the reserve are:

- unregulated legislation on the functions of social protection in the armed forces and the mechanisms for their implementation;
- inadequacy and fragmentarily of the legal basis relating to issues of social and economic security of military personnel ;
- inadequate modern working conditions and retirement indemnity for servicemen;
- the absence of action programs for social adaptation of servicemen subject passing in stock;
- delayed arrangement of housing problems;
- imperfection of medical care system applicable to servicemen released from military service and to their family members;
- weak legal basis of the social security system;
- limited financial resources available at the disposal of government authorities at national and regional level, the deficit of funds in local government;
- lack of coordination between the ministries and agencies in the field of social services;
- shortage of staff who have professional training in social work;
- low social status and inadequate wages of workers engaged in social services.

It is obvious that here, in Bulgaria, it is necessary to develop licensed activity services /delegated social service/ in the area of social adaptation of the military released from military service, to ensure monitoring of the social service compliance with the state standards. It is important for normative and legal basis for the organization and functioning of the social welfare services to be developed, personnel support to social offices providing services to a particular category of citizens.

In recent years a number of measures have been adopted to improve the legal basis for social protection of servicemen released from military service and members of their families, given the changed social and economic conditions. Sociological studies conducted in Bulgaria and results analysis of annual monitoring of socio-economic and legal status of the military taken all round mark positive dynamics of the process of social adaptation of soldiers discharged from military service in recent years.

This process has a systematic and complex character and is performed by many social institutions and specialized agencies concerned with the organization of the social adaptation of the military released from military service and the members of their families. Arguably, the process of adaptation began acquiring institutional traits. However, inconsistencies in the implementation of programs for adaptation lead to serious regional disparity.

Against the background of the declining level of confidence in the bodies of legislative and executive power on the part of population the rating of the armed forces in other state and public institutions remains relatively high, though the military themselves do not value the military service prestige in modern Bulgarian society. And this is directly related to dissatisfaction with the level of concern of the state for their families, underestimation of the place and role they play in the protection of the state, etc. This controversial circumstance shows hidden reserves to improve social policy and social work in social adaptation of soldiers released from military service and members of their families.

Social protection of servicemen released from military service and their families is a wide range of legislative, organizational, professional, financial, psychological and other aspects relating to both everyday life and the inner realm of a man.

The main tasks of the system for social protection of population in providing social support to the military, the honorably released part of their staff and their families can be specified as follow:

- identifying the most topical issues of adaptation and social protection of servicemen released from military service;
- support in providing medical, social, psychological, socio-economic, legal and other assistance;
- Interaction with the state and public organizations in search of servicemen released from military service due to illness or disability /people with fewer opportunities/;

- support to the families of servicemen in need of social assistance;
- analysis of conditions and prospects for social security and services to participants in warfare, to the military released from military service and members of their families;
- raising the living standards of the military and their families providing each of them the maximum possible under particular conditions social protection in accordance with the legislation of Bulgaria.

Based on the analysis performed we consider it appropriate to offer some recommendations to improve the system for social protection of servicemen released from military service.

Above all, it is necessary to establish the legal foundations of social protection of servicemen, also the social adaptation of the military released from military service and the members of their families. These are socio-economic, political and personal rights and freedoms, which cannot be modified, canceled or restricted by other normative and legal acts of lower level force. In other words, no legal regulation can contravene constitutional rights and freedoms of citizens.

In carrying out the reform of the military, length of service also has to be taken into account when providing for the pension insurance.

A detailed and realistic military service contract is optative in order to provide for equal responsibility of servicemen to the state and, vice versa, of the state to servicemen. It is necessary to strengthen control over the legality of orders issued by commanders and superiors regarding the allocation/ distribution of material and household goods among employees, imposing disciplinary actions, as well as regarding compliance of their practical work with the principle of social justice in the formations they are being entrusted to. Most full effect here can be achieved by establishing Institute of delegated representation of the bodies of state power within the formations in the form of special agents (on the model of the army in Germany) who would come into the system from bodies engaged in social and legal activity.

It is desirable to improve the system for continuous qualification advancement of the military, including at civilian universities, making them ready for the conditions of „civilian" life, providing opportunities for members of their families to receive superior quality education, which in turn shall ensure their competitiveness in the labor market.

It is necessary to set up sufficiently effective social-state structures to implement the support of the servicemen after their release from military service and transition into the stock.

We need to continue work on implementation of existing programs for social adaptation and social work with citizens released from military service and their families and to ensure privileges prescribed under the law. It is practicable to actively use the possibilities of social activity which involves such mechanisms as professional retraining of military personnel in the basics of entrepreneurship and small business, psychological consulting, legal services and other activities.

In this regard we consider beneficiary using new employment opportunities related to computers and new technologies. These types of activities, having high rehabilitation potential, contribute to self-assertion and can provide them with conditions for self-insurance. Complex development of the social protection of servicemen released from the ranks of the armed forces system in our view calls for:

- further development and legislative endorsement of new basic social standards and norms for the quality of life for servicemen and those passing in stock;
- defining mechanisms for their up-dating, development of medium and long-term social protection programs, providing social services and social benefits system reformation;
- completing the legislative package with regulations governing the social protection issues that have not been reflected in national legislation so far;
- adoption of urgent measures aimed at improving the retirement insurance;

- development of a long-term program for economic security, adapted to modern economic relations, at that maintaining a focus on the participants in hostilities, war invalids, on family members of servicemen who have lost people providing for them;
- supporting purchasing power of each family of military personnel within the conditions of continuing rise in prices and the going up cost of living through systematic readjustment/ indexation and compensation payments;
- defining the mechanisms for recovery of the lost link between the amount of pension and monetary support of servicemen;
- providing a radical solution to the housing problem in the Armed Forces .

Very recent creation of an effective, dynamic system of social adaptation of soldiers has succeeded to operatively and flexibly reorganize their structural divisions in order best to implement social policy of the state in life through a network of local state social service local government, public organizations.

In accordance with this requirement, a specialist of the given sphere need to:

- have good professional training, knowledge in various areas of psychology, pedagogy, sociology, laws, economics and organization of production, computing, mathematical statistics and many other general professional and special disciplines;
- have sufficient general and professional culture, to be deeply versed that presumes good knowledge in the humanities;
- be informed about contemporary political, social and economic processes in society and widely aware of the standard of living and problems of different social groups;
- foresee the consequences of his actions and firmly pursue his position in life;
- be in possession of certain social adaptability in relation to diversity of population needing advices of the social activity specialist;
- skillfully communicate and predispose the „difficult" growing ups, orphans, deserted women, people with limited opportunities, elderly, people in vindication etc.;
- to possess professional skills and experience, to be able to provoke sympathy and trust, to keep professional confidentiality, to show sense of delicacy in all matters concerning intimate aspects of human life, to have emotional stability, to be ready for mental loads, to avoid neurotic deviations in their own judgments and actions despite possible failures (not pertinent reactions, refusals, etc.);
- be able to conscientiously perform own duty, remaining calm, benevolent and attentive to the ward;
- be able to take appropriate decision in extreme situations, to formulate his thoughts, literate and understandable to set them forth.

In summary of above fragments of the social adaptation of the military released from military service and passing in stock we believe that it should be regarded as part of a comprehensive system for social work and protection of intellectual capital in our country that is in possession of value adding knowledge and skills. As soldiers are part of this capital, of the quality of social work carried out for adaptation to civilian life, possibilities for their smooth adaptation to civilian life and effective use of their skills and competencies carrying value and competitive advantage are determined. We make no claim to comprehensiveness of problems considered in our study but we purport to contribute to scientific knowledge in the field of social adaptation of servicemen leaving the ranks of the Armed Forces and the Bulgarian Army providing our view on this such a topical issue in the conditions of strengthening budget deficit and dynamic changes in security environment. And the effectiveness of the implementation of a cost- based system of social adaptation and protection is directly related to compliance with the principles of legality, integrity, impartiality, accountability, professionalism, competence, positivity, accessibility, humanity, transparency, equal treatment of social services users and the dignity of the military and civilian personnel along with all other members of our society.

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THE SECONDARY AND THE HIGHER EDUCATION PERFORMANCE OF TURKEY AND THE ECONOMIC CONSEQUENCES

Murat Cetin* and Belma Sunnetci**

Abstract: The paper focuses on the educational dimension of the economic performance. As being the main contributor to the innovation and output, the economic development is highly dependent on the human capital. The results of Program for International Student Assessment (PISA) show a strong correlation between the high scores of students in countries where economic development is high and mostly dependent on technological improvements. The following paper will be organized under three main topics. First of all, the current status of the secondary education will be analyzed in terms of developing a social capital that will provide a competitive advantage for the country. Secondly, the difficulty of catching up with the information age with the current education strategies in Turkey will be illustrated. Finally, the PISA outcomes that are reflecting the quality transfer of students from secondary education to higher education in Turkey will be studied in terms of economic consequences.

Keywords: Turkish Economy, Human Capital, PISA Index, Information Age, Secondary and Higher Education
JEL Classification: A10

1. Introduction

In Global Competition Report that was published by World Economic Forum, Turkey was listed in the rank of 43 among the 144 countries. The report formulates the competition of a country not only the value of the goods produced and sold in the world, but also with the institutions, policies and production functions that provides a sustainable development and efficiency. Although Turkey has a continued improvement for the macroeconomic indicators and investments, the income inequality, unstable employment structure and the high amount of shadow economy are obstacles for further development. The technological developments, innovation and the educational success need to be discussed for an economic development in the near future.

Among the contributors to the economic performance of a country, the education quality will be analyzed in the paper. The question will be whether the high economic performance expectations within the country will be implemented by the current educational standards. By looking at the secondary and university successes within Turkey comparably with the other economies in the world, the competitiveness and the future of the economic performance will be the main focus of the paper.

2. The Secondary Education

In the first two sections of the paper, we will try to have a look at the current educational system of Turkey by evaluating the successes of students in secondary education and universities. To begin with economic performance of a country and the secondary education performance of the students have a very close relationship.

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The first and most important indicator for the achievement of secondary education in Turkey is the PISA (the Program for International Student Assessment) results that give us a comparison of Turkey among other OECD countries. PISA 2012 survey had the focus of mathematics, reading, science and problem solving areas in assessment. The assessment covers 65 counties, the sample of students that are in 15-16 years old and represents 28 million students in these countries. The assessments' main target is to show the performance of the students in comparison, so that the countries can judge their performance level and learn new educational policies and applications.

The PISA has been performed ones every three years. The 2012 results are indicated in Table 1 below;

Table 1. The comparison of countries in 2012 PISA results

	Mathematics				Reading		Science	
	Mean score in PISA 2012	**Share of low achievers in mathematics (Below Level 2)**	**Share of top performers in mathematics (Level 5 or 6)**	**Annualised change in score points**	**Mean score in PISA 2012**	**Annualised change in score points**	**Mean score in PISA 2012**	**Annualised change in score points**
OECD average	494	23.1	12.6	-0.3	496	0.3	501	0.5
Shanghai-China	613	3.8	55.4	4.2	570	4.6	580	1.8
Singapore	573	8.3	40.0	3.8	542	5.4	551	3.3
Hong Kong-China	561	8.5	33.7	1.3	545	2.3	555	2.1
Chinese Taipei	560	12.8	37.2	1.7	523	4.5	523	-1.5
Korea	554	9.1	30.9	1.1	536	0.9	538	2.6
Macao-China	538	10.8	24.3	1.0	509	0.8	521	1.6
Japan	536	11.1	23.7	0.4	538	1.5	547	2.6
Liechtenstein	535	14.1	24.8	0.3	516	1.3	525	0.4
Switzerland	531	12.4	21.4	0.6	509	1.0	515	0.6
Netherlands	523	14.8	19.3	-1.6	511	-0.1	522	-0.5
Estonia	521	10.5	14.6	0.9	516	2.4	541	1.5
Finland	519	12.3	15.3	-2.8	524	-1.7	545	-3.0
Canada	518	13.8	16.4	-1.4	523	-0.9	525	-1.5
Poland	518	14.4	16.7	2.6	518	2.8	526	4.6
Belgium	515	18.9	19.4	-1.6	509	0.1	505	-0.8
Germany	514	17.7	17.5	1.4	508	1.8	524	1.4
Vietnam	511	14.2	13.3	m	508	m	528	m
Austria	506	18.7	14.3	0.0	490	-0.2	506	-0.8
Australia	504	19.7	14.8	-2.2	512	-1.4	521	-0.9
Ireland	501	16.9	10.7	-0.6	523	-0.9	522	2.3
Slovenia	501	20.1	13.7	-0.6	481	-2.2	514	-0.8
Denmark	500	16.8	10.0	-1.8	496	0.1	498	0.4
New Zealand	500	22.6	15.0	-2.5	512	-1.1	516	-2.5
Czech Republic	499	21.0	12.9	-2.5	493	-0.5	508	-1.0
France	495	22.4	12.9	-1.5	505	0.0	499	0.6

Table 1. Continued

United Kingdom	494	21.8	11.8	-0.3	499	0.7	514	-0.1
Iceland	493	21.5	11.2	-2.2	483	-1.3	478	-2.0
Latvia	491	19.9	8.0	0.5	489	1.9	502	2.0
Luxembourg	490	24.3	11.2	-0.3	488	0.7	491	0.9
Norway	489	22.3	9.4	-0.3	504	0.1	495	1.3
Portugal	487	24.9	10.6	2.8	488	1.6	489	2.5
Italy	485	24.7	9.9	2.7	490	0.5	494	3.0
Spain	484	23.6	8.0	0.1	488	-0.3	496	1.3
Russian Federation	482	24.0	7.8	1.1	475	1.1	486	1.0
Slovak Republic	482	27.5	11.0	-1.4	463	-0.1	471	-2.7
United States	481	25.8	8.8	0.3	498	-0.3	497	1.4
Lithuania	479	26.0	8.1	-1.4	477	1.1	496	1.3
Sweden	478	27.1	8.0	-3.3	483	-2.8	485	-3.1
Hungary	477	28.1	9.3	-1.3	488	1.0	494	-1.6
Croatia	471	29.9	7.0	0.6	485	1.2	491	-0.3
Israel	466	33.5	9.4	4.2	486	3.7	470	2.8
Greece	453	35.7	3.9	1.1	477	0.5	467	-1.1
Serbia	449	38.9	4.6	2.2	446	7.6	445	1.5
Turkey	448	42.0	5.9	3.2	475	4.1	463	6.4
Romania	445	40.8	3.2	4.9	438	1.1	439	3.4
Cyprus	440	42.0	3.7	m	449	m	438	m
Bulgaria	439	43.8	4.1	4.2	436	0.4	446	2.0
United Arab Emirates	434	46.3	3.5	m	442	m	448	m
Kazakhstan	432	45.2	0.9	9.0	393	0.8	425	8.1
Thailand	427	49.7	2.6	1.0	441	1.1	444	3.9
Chile	423	51.5	1.6	1.9	441	3.1	445	1.1
Malaysia	421	51.8	1.3	8.1	398	-7.8	420	-1.4
Mexico	413	54.7	0.6	3.1	424	1.1	415	0.9
Montenegro	410	56.6	1.0	1.7	422	5.0	410	-0.3
Uruguay	409	55.8	1.4	-1.4	411	-1.8	416	-2.1
Costarica	407	59.9	0.6	-1.2	441	-1.0	429	-0.6
Albania	394	60.7	0.8	5.6	394	4.1	397	2.2
Brazil	391	67.1	0.8	4.1	410	1.2	405	2.3
Argentina	388	66.5	0.3	1.2	396	-1.6	406	2.4
Tunisia	388	67.7	0.8	3.1	404	3.8	398	2.2
Jordan	386	68.6	0.6	0.2	399	-0.3	409	-2.1
Colombia	376	73.8	0.3	1.1	403	3.0	399	1.8
Qatar	376	69.6	2.0	9.2	388	12.0	384	5.4
Indonesia	375	75.7	0.3	0.7	396	2.3	382	-1.9
Peru	368	74.6	0.6	1.0	384	5.2	373	1.3

Source: OECD, 2013b

According to the 2012 PISA results, Turkey has encountered an improvement in both three types of points in PISA evaluation: mathematics, reading and science. However, the improvement was much more in previous years. It can be said that the acceleration was in a slower motion. In reading tests, the Turkish students have performed better in reading, the upper level students increased their ranking in 4 grade and the lower level students increased their ranking in 1 grade. The science part had also showed good performance with an increase of one level both in lower level and high level performers. The mathematics part, on the other hand, remains in its place without any improvement in mathematics. 42 percent of students are under 2nd level performers and only 5 percent of students are within the top performer level of 5. In order to have a comparison and understand the level of Turkey, we can compare it with China. In China, the top performer students in mathematics constitute 55 percent of the total students and the lower level students at performance level 2 is around 4 percent (OECD, 2013b).

The PISA results are the indicator of Turkey's competition level by pointing out the new generations' place among other students in the world that will be the employment power in the future. The slowness in improvement of the success in Turkish students as indicated in Table 2, Table 3 and Figure 1, shows that the education level is not enough to be competitive in the future among the developing countries.

Table 2. The comparison of PISA results of Turkey

	2006 PISA Results		**2009 PISA Results**		**2012 PISA Results**		
	Point	**Ranking**	**Point**	**Ranking**	**Point**	**OECD Average**	**Ranking**
Science	424	29	454	31-33	463	501	30-32
Mathematics	424	29	445	31-32	448	494	31-32
Reading	447	28	464	31-32	475	496	27-31

Source: OECD, 2013b and Gurses, 2013

Table 3. PISA mathematics results of Turkey

	Percentage of Total		**Delta from 2012**	
	Below Level 2	**Level 5 and 6**	**Below Level 2**	**Level 5 and 6**
2003	52.2	5.5	-10.25	0.39
2006	52.1	4.2	-10.11	1.69
2009	42.1	5.6	-0.17	0.23
2012	42.0	5.9	-	-

Source: OECD, 2013b and Gurses, 2013

Turkey's rankings in PISA 2012 are almost below the OECD average both in general average and special assessments. The total average of Turkey ranking is 45 among 65 countries. The rankings in mathematics, reading and science are 44, 42 and 43, respectively. Turkey was found successful in terms of consistent improvement in mathematics together with Brazil, Chile, Germany, Israel, Italy, Mexico, Poland, Portugal and Tunisia (OECD, 2013b).

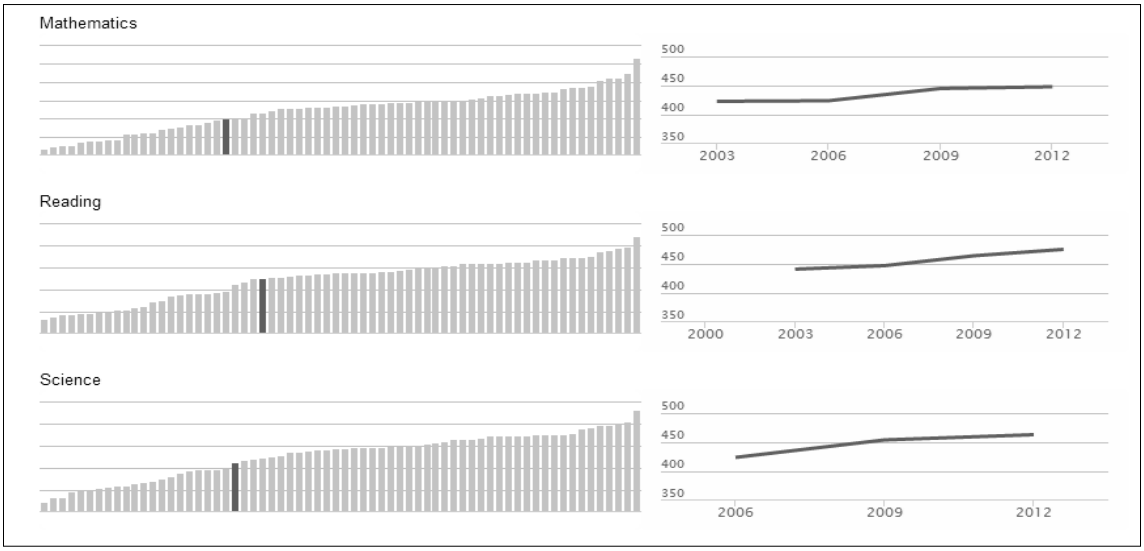


Figure 1. Turkey PISA results comparatively with other OECD countries
Source: OECD <http://www.oecd.org/pisa/> [Accessed 9 December 2013]

After the crisis, the increasing unemployment rates gave evidence for the importance of the education especially among young people. Within OECD countries, as shown in Figure 2, 25-34 year-olds without secondary education were unemployed in 2011 with an average of 18.1 %. The unemployment rate among Youngers has increased with a high steep in Estonia, Greece and Spain with the rate of 17.6 per cent, 15 per cent and 16 per cent, respectively. Among the OECD countries, the expected average level of young people that are expected to finish their upper secondary education is 83 per cent. In 2011, Turkey's rates are slightly higher than 50 per cent in terms of upper secondary education level (OECD, 2013a).[1]

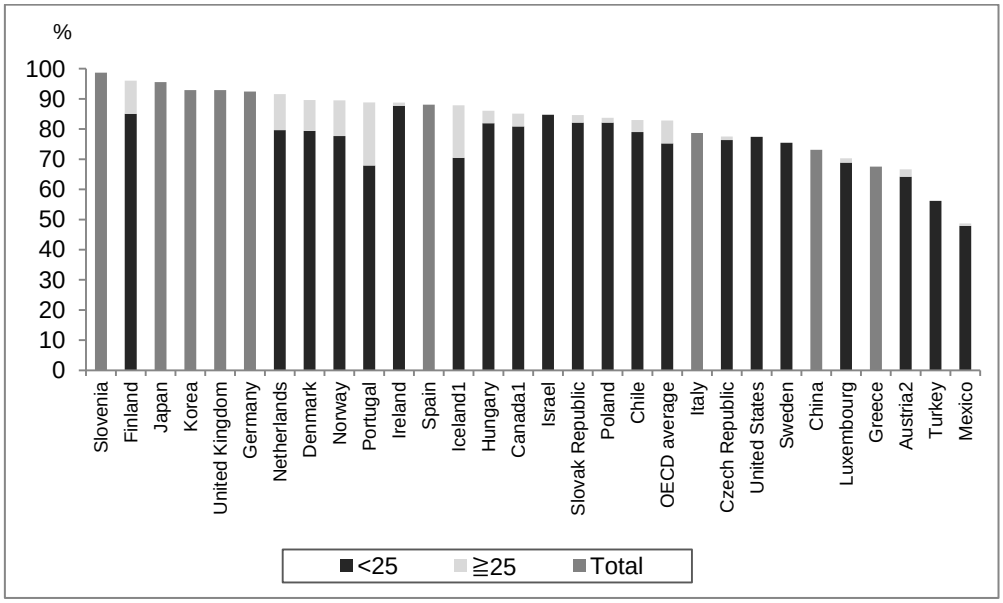


Figure 2. Upper secondary graduation rates (2011)
Source: OECD, 2013a

The economic consequences of the number of students below an average level of success were also estimated in PISA report. It was estimated that the economic losses due

[1] OECD, 2013a

to the low performing students is around 200 trillion EUR among OECD countries (OECD 2013b, p. 9).

2.1. Equity in Education

The results of PISA also have an equity dimension. Equity among students has a tremendous contribution to success. Australia, Canada, Estonia, Finland, Hong-Kong, Japan, and Korea had already combined their high level of performance with equal education opportunities. Mexico and Turkey was included among the countries that have improved equity in their educational system. According to PISA 2012 report, some countries have performances that are higher than expectation in the way that the students resilient, meaning performing better than expectations comparing to their education standards. These countries are Hong-Kong, Singapore and Vietnam.

The quality of best Turkish schools has similar qualifications compared to other well-performing schools in the world. However, the inequality among the schools makes it impossible to expand the quality to all over Turkey. The class sizes, the qualities of teachers and other socio-economic conditions in schools create discrepancies among student successes. Another point for the inequality issue is the entrance exam system in Turkish education. Students are distinguished in different types of schools according to the success levels from lower levels. The students who are enrolled in average level of high school have no chance to upgrade their levels due to the education level within these schools. The wealth of families plays a remarkable role in education opportunities of a student and the inequality continues within the end of the education (Owings *et al.* 2012).

The quality of teaching staff is also a determinant in success of students. PISA results have showed that comparing two similar schools with same kind of location, size and similar social-economic status, the one with higher quality of teaching staff will be performing better than the one with lower qualified teaching staff. Counties that have improved their PISA results also have improved their teaching qualities by providing incentives to high-performer students, increasing the salaries of teachers or offering teachers incentives to teacher-training programs. The quality of teaching is also much correlated with the income status of the countries. PISA results also pointed out the fact that countries having more than 20 thousand USD per capita income spent more in teaching activities and pay more salaries to high-performer school staff.

According to the PISA 2012 report, the relationship suggests that 21% of the variation in countries' mean scores can be predicted on the basis of their per capita GDP (12% of the variation in OECD countries). Countries with higher national incomes are thus at a relative advantage, even if the chart provides no indications about the causal nature of this relationship. This should be taken into account particularly when interpreting the performance of countries with comparatively low levels of national income, such as Viet Nam and Indonesia (Mexico and Turkey among OECD countries).

3. The Quality of the Universities in terms of the Inefficiencies in Mathematics and Science

The return on investment of education is also another study area that economists have paid attention to. It is agreed that national economic development is a complex process that includes lots of contributors and difficult to measure. Human capital is a contributor to the development in most of the economic studies. Barro (1997, p.15) states that “an extra year of male upper-level schooling is therefore estimated to raise the growth rate by a substantial 1.2 percentage points per year”. According to OECD (2004) researches, “The long-run impact in the OECD area of one additional year of education is estimated to increase economic output by between 3% and 6%.”

Another point is that the level of education and the success of the students have different effects to countries having different income levels. Researches showed that the

educational development in every level brings higher return on investment in low income countries. Another important point is that tertiary education brings highest level of improvement to economic development and that is not correlated with the economic development level of the country.

The higher education has become one of the main factors in providing labor force that is essential in new knowledge-based economies and the labor force needs to adapt themselves rapidly changing global environments.

The findings of OECD in territory education deserve attention. According to studies, among the 23 of the 29 countries studied have first-time upper secondary graduation rates of 75 percent. The graduation rates exceed 90 percent in Denmark, Finland, Germany, Japan, Korea, the Netherlands, Norway, Slovenia and the United Kingdom. The results are also relevant with the expectations. In Denmark, Finland, Germany, Japan, Korea, the Netherlands, Norway, Slovenia, and the United Kingdom, the expectation for high education graduation is 90 percent, whereas in Mexico and Turkey, it is even less than 60%, in other words 60 percent of people are expected to have a university degree (OECD, 2013c).

The age categories are also worth mentioning that the average age for graduation from upper secondary education is 20. It differs in Turkey and Israel that the graduation age is 17. On the other hand, in USA, the age is high, students graduate at their 22s. Vocational programs started to be interest of young women and approached to the young men graduation levels. Boys in vocational programs are studying engineering, manufacturing and construction and girls are interested in business, law, social sciences, health and welfare and services.

Looking at the world trend in upper secondary graduation rates, it was concluded that there is an average 8 percent increase among OECD countries starting from the year 1995. Mexico has implemented highest growth rate of 4 percent between 2000 and 2011. Since 2000, the tertiary education completion rates in OECD countries have increased by 10 percentage points among adults. The average percentages of women and men attaining tertiary education are 33 percent and 30 percent respectively (OECD, 2013b).

Figure 3 shows the OECD countries tertiary education percentages within total population. Turkey is far below the OECD averages.

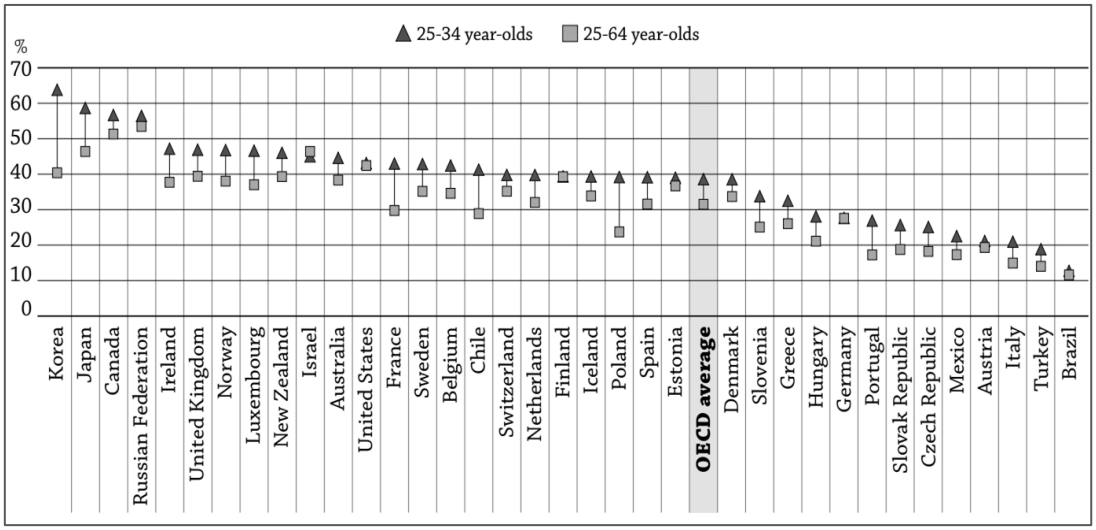


Figure 3. Population that has attained tertiary education

Source: OECD, 2013a

The number of universities in Turkey has increased in numbers recently. Currently, the number of universities in Turkey reached to 170, whereas it was 70 at the beginning of 2000s (Altinsoy, 2011). The advantage of high number of universities has not fully accomplished due to the educational quality level differences among them.

In 2013 European Union Progress report Turkey was praised because of the improvements in education system. The new 4+4+4 system has lowered the age of compulsory education from 84 to 66 months. The curriculum changes have caused some problems for beginner students. In primary school, the enrollment rates are 98.9 percent and in secondary school, the enrollment rates are 93.1 percent. The upper second education enrollments have been increased from 67.4 percent to 70.1 percent. The attendance rates of girls have increased from 67 percent to 69 percent. The Bologna stage was implemented among the universities. However, there still exit inequalities among universities. Turkey has also implemented the Lifelong Learning and Youth in Action programs with more than 60 thousand applicants (European Commission, 2013).

4. Catching up with the Information Age with the Current Education Strategies in Turkey

The academic literature for human capital can be said to start with the studies of Gary Berker. The investment in human capital was institutionalized within his studies. Nelson and Phelps also points out the human capital's harmony with the changing technological and environmental situations. Also, there are studies showing the relevance between the educational level and the individual returns (Education Reform Entrepreneurship, 2011).

Psacharopoulos and Patrinos (2004) have researches showed that the economic yields of higher education started to decrease in high level of economic developments. In Turkey, as being a developing country, the economic returns are still high, in other words, increasing the educational outcomes still contributes to economy (Psacharopoulos and Patrinos, 2004). According to the recent studies in economic outcomes of the education, in Turkey, the individual yield of higher education is around 11 percent (Tansel and Daoud, 2011). Even the university education has higher economical yields that are as high as 20 percent.

The global order after 2000s has led a more mobile environment both in terms of production. So, the labor force and education also started to be mobile. Migrant workers started to constitute much higher percentages than before. As competitive advantage, the skills of workers are much more important than before. The big gap between rich and poor countries in terms of skilled workers makes the developing countries less advantageous position in competition.

Recent studies estimated that there can be potential shortage even about 40 million who are high-talented. The shortage will be faced within the world in the next two decades. Also shortage in mid-level vocational skills will be 45 million in emerging countries like India, South Asia and Africa.

In economical production, human capital as a production factor affects the production level not only with the number of the labor force but also the skills and accomplishments of the workers. The labor force can only turn out to be a productive input, if it can be furnished with qualifications and skills. The importance of labor force planning is obvious in the sense that while there is a labor force deficiency in professions that require high quality and skills, there are lots of unskilled works.

The Global Talent Competitiveness Index study discusses the policies to increase the talented worker number in the world that will lead a more productive and growing economic environment. Bringing together different mathematical indices, the Global Talent Competitiveness Index makes an input and output study by analyzing the strategies and ways that countries use as input in order to have talented and skilled labor force as output. The input part consists of four main pillar: first of all, the enablers that are regulatory, market and business landscape. Secondly, attract input that is used for external and internal openness. Thirdly, growth has the subtitles of formal education, lifelong learning and access to growth opportunities. The last retain factor includes sustainability and lifestyle (OECD, 2013c).

Turkey has a ranking of 67 in general comparison among the 103 countries within the GTCI. The elasticity of the labor force in Turkey, the quality of the business schools are even lower ranks than the average rank that are 87 and 74, respectively. The other criteria in the index that are comparatively higher are the innovation facilities in order to develop new products that is 11, attendance to vocational schools that is 28 and the attendance to universities that is 40. These numbers reflect the need of developing new strategies for education in Turkey.

In order to compare Turkey's position in competition environment Turkey, it will be better to have a look at the top ten performers in GTCI. Switzerland has the ranking of one and the remaining are all European countries, Denmark, Sweden, Luxembourg, Netherlands, Finland and Iceland except for Singapore(2) and United States (9). It is obvious that the success of these counties in competitiveness is also as a result of their higher income levels. The northern continent of Europe shows a very well performance in terms of education. All the top ranked countries have common qualities like commitment in quality, history of migration and strategies to grow and attract people (OECD, 2013c).

Cognitive skills and the economic growth were illustrated in OECD economic modeling. It was stated that the relationship points out that very small developments in labor force of a country can have important consequences in the future. The economic growth and the quantitative schooling measures have been tested in literature and high proportion of correlation was found.

The main disadvantages of Turkish education system can be summarized as follows: first of all, the schooling rates in Turkey are low compared to OECD countries, which data has been implemented previously. Conditional to the low higher education levels, the unemployment rate that is 9.8% as November 2013 is also high compared to OECD average. Secondly, there is a mismatch between the graduates and the industry needs. Schools cannot prepare the students for the working environment demands. Students need to develop themselves in some way so that they can be successful in their jobs. Thirdly, the cultural influences effect the education, gender, region plays an important role in school enrollment. The girls participating in schools in east region of Turkey are much lower than the ones in west regions. Income related inequalities also constitute a huge difference among education opportunities.

The teacher quality matters in all aspects of education. So, improving the teacher quality should be among the main educational policies for improvement of the student quality that will serve the economic performance of Turkey. Teachers need to have practical experiment and incentives for attracting the profession.

The human capital and educational improvements were also highlighted in Structural Reform Report of OECD. It was stated that the expected years in school in Turkey that are 13.7 years for boys and 12.9 years for girls have been much lower than the OECD averages of 17 and 18 in year 2009. Although the compulsory education has increased, the quality of the schools due to the socio-economic, regional and cultural heterogeneity of the country had remained the quality of the school in unsatisfactory levels (Gonenc *et al.* 2012).

The moderate level of Turkey's competitive skills in bringing its economy to upper levels can also be described in the definition of middle income trap. Turkey had already set ambitious economic target that is to reach 20 thousand USD per capita GDP until 2023 that is to say nearly doubling the current levels. The middle income trap is the status of a country who cannot improve its per capita income level from the middle income levels. Although Turkey cannot be said to be within the middle income trap, it has the risk if the economic situations cannot be improved. The economic growth levels between 2009 and 2011 were a reflection of the improvements from the global financial crisis and it was a recovery.

The middle income trap risk usually occurs within the mid-level manufacturing sectors in the economic developmental levels. According to the developmental levels theory developed by Turkonfed Report (Yeldan *et al.* 2012), the economic development of a country starts with first level industries as agriculture, mining. Then, second level low-technology industries like food, textile and tobacco come. The economy develops its status by upgrading

to third and fourth level of manufacturing areas. And the trap is within the forth level where motor vehicles, chemical, machinery and electrical products are produced. If the economy cannot upgrade itself to the fifth level of information technologies, then the current situation will be in a risk. And the information age products as computers, telecommunication technologies can only be produced with the labor force and engineers having high skills and qualifications (Yeldan *et al.* 2012).

5. Conclusion

The main economic problem in Turkey is its current account deficit of 50 million US dollar that is basically caused by the energy imports. Turkey cannot turn these deficits to surpluses as South Korea does without producing and exporting products that are competing the world in the information age. The target in the economy needs to be the production of high value added products that are incompatible with the competitive environment of telecommunications and information technologies.

The main reason behind the inefficiency in producing high value added products in millennium technologies lies under the incapability of the education system in developing engineers and labor force to materialize the production. The graduates from Turkish universities have limited capabilities to make Turkish economy catch up with the information age. The master and doctorate dissertations are valuable, but have no relationship with the productive industry.

The proportion of high-tech products among the total exported goods constitute a strong indicator for a countries' competitive power and the high technology products are the power of o country for the continuity of trade and economic development. The production of technological products is highly dependent on the educational background and the technical background of workers. According to a study of Tubitak, the research and development effectiveness of export-making firms were searched. It was found that among the export making firms that has a total number of 114 thousand, 72 percent (82 thousand) of them has no interest with research and development activities, design, invention or patent.

The average education periods are so low that makes it impossible to compete with the global economic markets. One cannot talk about innovation culture without free and critical thinking methods that most of the young people have short of. It will be impossible to limit the account deficits by only decreasing the transportation, finance or energy costs without the required quality in education system.

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DIRECT-TO-CONSUMER–ADVERTISING IN PHARMACEUTICAL MARKETING: ARE THE TURKISH CONSUMERS READY FOR IT? [τ]

Yusuf Can Erdem* and Dilek Saglik Ozcam**

Abstract: The pharmaceutical market is somehow different from other markets in terms of its market structure in that the "decision makers" are usually the medical doctors in prescribing and choosing medicines for their patients (consumers). Since 1987 many marketers have recognized the great potential of Direct-to-Consumer-Advertising (DTCA) to reach millions of potential consumers globally. Following the approval of promoting nonprescription medicines directly to consumers by the Turkish Government for the first time in 2011, we searched for the arguments in favor of and against the implications of DTCA in order to find out the consumers' knowledge and perceptions of direct promotion of medicines in Turkey. Our findings can be summarized as the respondents being knowledgeable of the legal framework and resistant to both advertising and the influence of prescription medicines although they were more tolerant to the non-prescription medicine advertising.

Keywords: Pharmaceutical Marketing, Direct-to-Consumer-Advertising, Turkish Pharmaceutical Market
JEL Classification: M31, M37, M38

1. The Global Pharmaceutical Market

Although global pharmaceutical market reached 972 USD Bn. by 2012 from 567 USD Bn., (IMS, 2013) growth rate decreased from 10.1% to 3.2% for the same period (Figure 1). Annual global spending on medicines reached nearly $1.2 trillion in 2007, as the pharmerging markets, biologics and generics contribute more to spending (IMS, 2013). According to the report of Global Use of Medicines Report of IMS Health, total spending in the developed markets, including the United States, Europe and Japan will decline down to 57% of the global pharmaceutical market due to expiring patents for a number of significant brand-name drugs, slower increases in spending on branded products. On the other hand, the pharmerging markets will reach 30% of global spending by 2016, as population and economic growth contribute to dramatically higher use of medicines in these markets (IMS, 2013).

The term "pharmerging" was first used by IMS Health when it was recognized as seven emerging markets of China, Brazil, Russia, India, Mexico, Turkey, and South Korea where major economic developments took place.

In 2010, a list 17 high-growth pharmaceutical markets were ranked as "pharmerging," by IMS Health. All those pharmerging countries have GDP per capita of less than $25,000 at purchasing power parity (PPP) and with more than $1Bn absolute spending growth over 2012-16. The new list includes Poland, Venezuela, Argentina, Indonesia, South Africa,

[τ] An earlier version of this paper which reviewed the literature on Direct-to-Consumer–Advertising was presented at the 12thYIRCOBS International Research Conference on Business Strategies organized by Yeditepe University in June, 2012, Istanbul, Turkey and was published in Germany. In the current paper, the literature research was extended and an applied research was conducted with a sample of 329 randomly selected consumers in order to find out their knowledge and perceptions of direct promotion of prescription and non-prescription medicines in Turkey.

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Thailand, Romania, Egypt, Ukraine, Pakistan and Vietnam in addition to the previous seven countries (IMS, 2013).

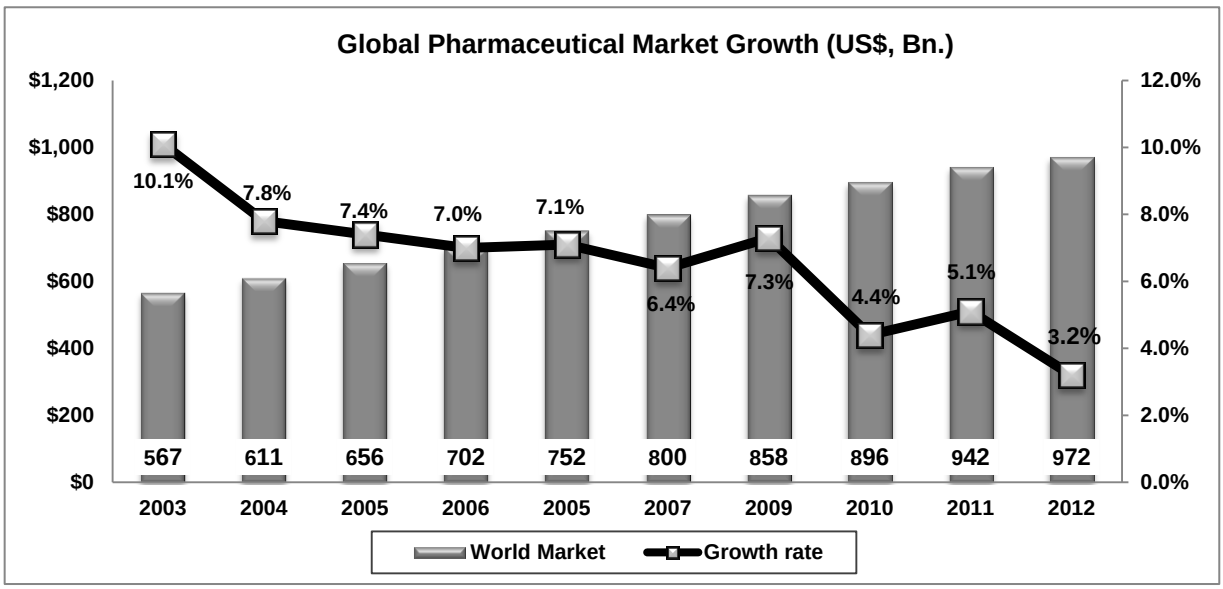


Figure 1. Global pharmaceutical market and the growth (US$ Bn.)
Source: IMS, 2013

According to IMS projections, by 2017, 50% of drugs by volume are forecast to be in the pharmerging markets, and the US and Europe will account each for only 13% of pharmaceutical volume by 2017 (Figure 2).

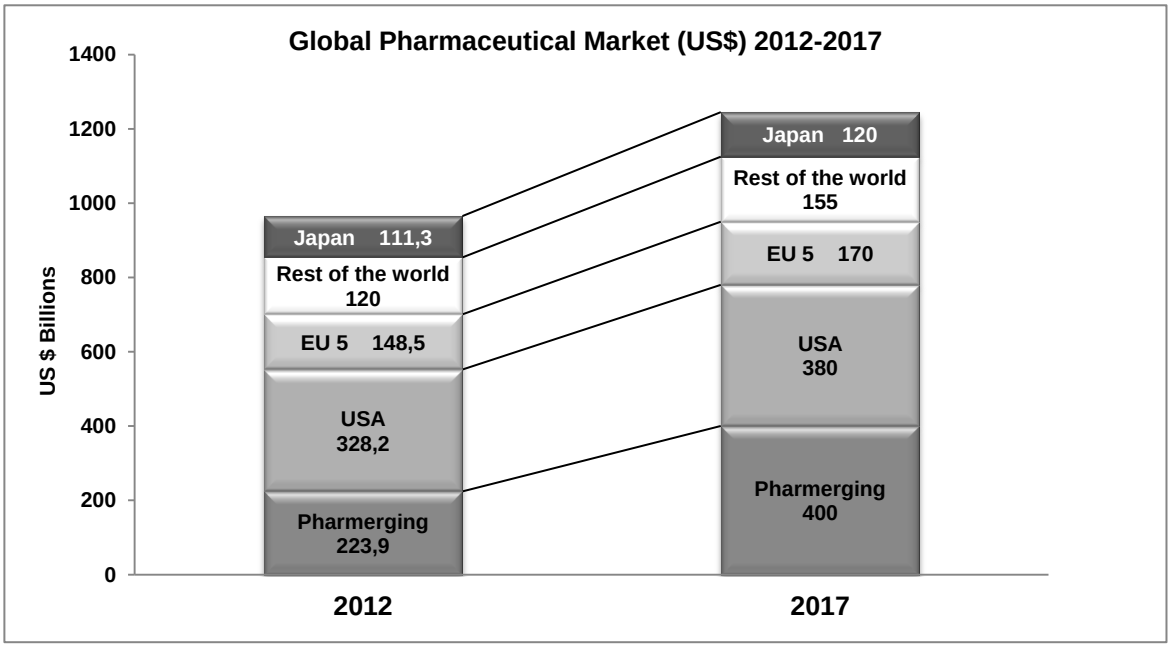


Figure 2. Global pharmaceutical market (US$BN) 2012-2017
Source: Pharmaceutical Commerce, 2014

IMS forecasts that by 2016, the United States will hold the number one position with a 31% market share. Japan will follow with a 10% share. The total of pharmerging countries are projected to hold a 10% share by 2017. Led by China, the BRIC countries (Brazil, Russia, India, and China) will account for 70% of all pharmerging market sales by 2017 on a value basis and strategically will continue to be the important engines of growth among

emerging markets. Pharmaceutical sales are expected to reach $167 billion in China, $49 billion in Brazil, $24 billion in India, and $27 billion in Russia, by 2017 according to IMS. The pharmaceutical markets of the EU5 (France, Germany, Italy, Spain, and United Kingdom) collectively are projected to hold a 13% share. China may hold the second position with a share of 15% if traditional Chinese medicines are included (IMS, 2013)

2. Pharmaceutical Marketing

The pharmaceutical industry is differentiated from other markets by its marketing efforts. Both the traditional marketing mix elements of product, price, place, promotion and their recent version of consumer, cost to consumer, convenience and communication may take very different forms in healthcare marketing in general and pharmaceutical marketing in particular. Consumer is just one of the four parties (patient, physician, pharmacist and the insurer) in the consumption decision with almost no authority in product selection particularly in case of prescription medicines. Generally, in the selection of medication for the patient, the physician is the “decision maker” and the pharmacist is the “influential factor” (Erdem, 2013).

Typically the consumers do not pay the cost directly since most of the drug costs are met by either private insurance companies or national health systems. Therefore, the consumers have a passive role with no price sensibility and they may not even have an idea of the cost at all.

The pharmaceutical markets all around the world are mainly regulated and controlled by the state authorities through either ministries or other central administration organizations. Starting with the licensing and approval of new drugs the phases of pharmaceutical marketing including promotional activities are all to be controlled and approved by the state authorities.

Due to the legal restrictions, promotional activities are usually limited to six major forms in pharmaceutical marketing: sales representation (detailing), direct mail, samples provided to physicians (sampling), medical journal advertising, sponsorship of continuing medical education and public media advertising. Since they are the “decision makers” in prescribing and choosing medicines for their patients (consumers) the medical doctors have always been targeted by most of the marketing activities. Traditionally, drug manufacturers have promoted their products with advertising aimed at physicians via direct mail, detail sales forces and scientific symposia. All the promotional materials, and the advertising via medical journals and other publications used to focus on the Health Care Professionals (HCP). The most popular marketing activity in the sector, the free samples and other medical documents used to be provided by the drug representatives employed and trained by the companies. But since 1987 Health Care Professionals (HCP) are better to be called the ‘gate-keepers’ to patients’ access to medicines since the patients do have an authority to choose a drug at least to a certain degree in the USA and New Zealand (Raven, 2004).

3. Direct-to-Consumer Advertising (DTCA)

DTCA is defined as any statement or pictorial design directed at the general public that is intended to promote the use or supply of medical goods or services (Australian Medical Association, 2007).Television advertising takes up the bulk of DTC pharmaceutical marketing expenditures. Based on average television viewing in the United States, the average adult is exposed to 100 minutes of DTCA each year for every one minute spent with a medical doctor (Brownfield *et al.* 2004).

Among the various forms of mass media the most promising one is the enormous potential of online DTCA such as product Web sites, online display advertising, search engine marketing, social media campaigns, and mobile advertising, to reach millions of potential consumers globally.(Liang and Mackey, 2011; Abel *et al*. 2006) In 2003, the pharmaceutical industry spent $59 million on DTC promotion on the Internet (Choi and Lee, 2007).

Ever since the beginning but mainly after 1997 DTC advertising has become a major marketing phenomenon in the American health care system. Patients, physicians, advertising companies, consumer health organizations, and different lobbying groups including politicians have been debating over the benefits and risks of it from different perspectives. The main argument of the companies is whether DTC advertising can help consumers become more informed about diseases and prescription drug choices. They also argue that these advertisements may make patients more likely to seek help and discuss their conditions with their doctors, thus getting the right treatments they need. But critics of the practice claim that DTCA is used to drive choice usually in the direction of expensive brand-name drugs rather than inform people. DTCA has been criticized as contributing to the "medicalization" of natural conditions, cosmetic issues, or trivial ailments, resulting in an overmedicated society (Frosch *et al*. 2010). Opponents also complain that DTCA exacerbates unhappiness about normal experiences and also creates heightened expectations of drug benefits which can cause severe distress when a drug is unaffordable or when the response to a medication is disappointing (Almasi *et al*. 2006).

DTCA exploded after a 1997 decision by the US Food and Drug Administration (FDA) to permit drug companies to mention the brand name of their products in public advertisements, provided that the ads explained the benefits and risks of treatment in a balanced fashion. Spending on DTCA by pharmaceutical companies for prescription drugs has grown from $55 million in 1991 to just under $5 billion in 2007 (Kravitz and Epstein, 2005; Robinson *et al.* 2004). Total spending on pharmaceutical promotion grew from $ 11.4 billion in 1996 to $ 29.9 billion in 2005 but total spending on DTCA was still only 14 % of total promotional expenditures in 2005 (Donohue *et al.* 2007).

Studies of the effect of advertising on prescribing practices have shown that such advertising increased class wide sales, helped averting underuse of medicines to treat chronic conditions, and led to some overuse of prescription drugs (Rosenthal *et al*. 2003).

From the perspective of the Advertising industry, it has been found that the number of prescriptions written for DTC drugs positively correlates with increases in spending (Spake and Joseph, 2007). A study reviewed by the United States Government Accountability Office (GAO) found a median increase in sales of more than $ 2 for every $ 1 spent on advertising (GAO, 2006). Another study found that each dollar spent on advertising in 2000 generated additional sales of $4.20 (Kaiser Family Foundation, 2003). In 2000, DTC advertising raised drug sales by 12 %, costing patients and insurers an additional $ 2.6 billion (Healy, 2007).

According to World Health Organization (WHO), one of the reasons of getting drug expenditures of tax payers out of control is the advertising expenses but Pharmaceutical Research and Manufacturers of America (PhRMA) believes that DTCA lets patients avoid unneeded surgeries and hospital stays by encouraging patients to seek medical attention (World Health Organization, 2009; PhRMA, 2008).

Although DTCA of prescription medications is commonly broadcast in the USA and New Zealand, DTCA is currently restricted by law to over-the-counter (OTC) and pharmacist-only medications in Australia, Canada and European Union countries. Canada does allow ads that mention either the product or the indication, but not both. The pharmaceutical industry and lobby groups have tried unsuccessfully to overturn bans against DTCA for prescription medicines in Canada and regions, such as in the European Union (EU). Notably, in 2008, 22 of the 27 EU member states voted against proposed legislation that would have allowed even limited "information to patients" to be provided. It is also true that as long as industry groups and public health groups continue to operate from opposing philosophical stances (market theory versus public health theory), agreement on the value of and risks of DTCA is very unlikely (Stevenson, 2002). Both supporters and opponents of DTCA agree that even though it might not be possible to severely curtail or ban DTC ads, measures should at least be undertaken to maximize the benefits and minimize the risks of consumer drug advertisements.

4. Turkish Pharmaceutical Market

Turkey with a size of pharmaceutical sector of almost $8Bn (with 2013 manufacturers' prices) is one of the pharmerging markets (Figure 3). Being the 6th in Europe and 14th biggest in the world, the Turkish market consists of 300 companies of which 64 are manufacturers with 68 manufacturing sites and 10 are raw material manufacturers with 12 raw material manufacturing sites. 15 of 68 manufacturing facilities and 6 of 12 raw material manufacturers are foreign investments (Focus Reports, 2012; Price Waterhouse Coopers Turkey, 2013; AIFD, 2014).While some of foreign companies have been in Turkey for more than 50 years; they have purchased local companies through acquisitions only in the last 10 years. On the other hand, many of the leading Turkish companies are either partners or distributors of global companies. Consequently, the ratio of production volume in Turkey has been changing in favor of imported products

The legislation which regulates the pharmaceutical and health sector in Turkey is very complicated. One of the most important effects in the sector is the control of the Ministry of Health (MoH) over pricing and product license. The most important customer base is comprised of customers of the State Hospitals and those of the Social Security Institutions. Although the Ministry of Health is the only authority responsible to control regulations on promotion, the overall governance model for the promotion is still confusing due to the lack of clear legislation. This provides a great excuse for the multinational companies to follow their own compliance processes. The multinationals have their own organization which is the Association of Research Based Pharmaceutical Companies (AIFD) in Turkey since 2003.

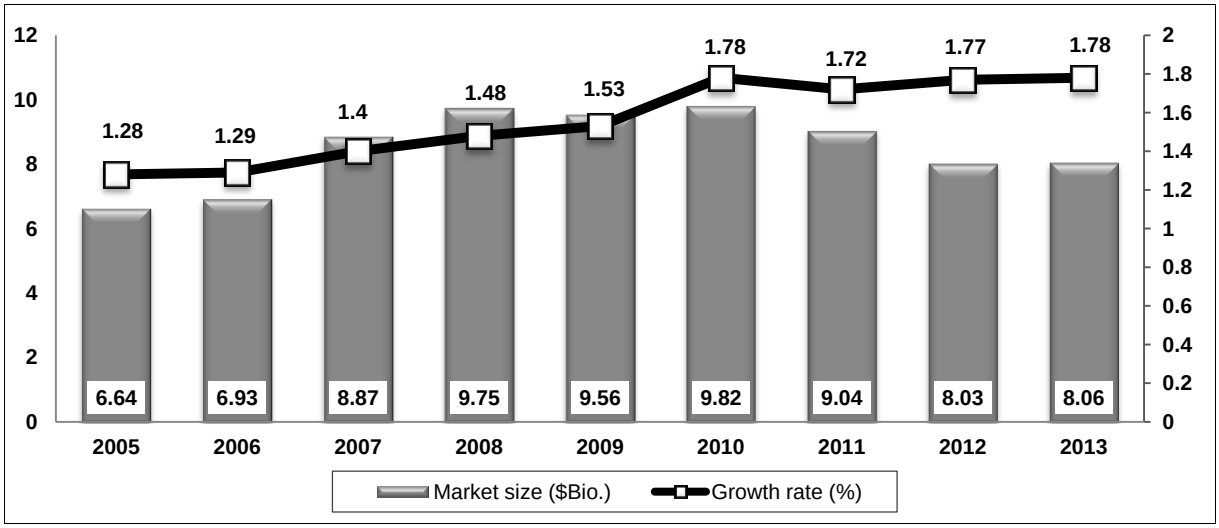


Figure 3. Total Turkish IMS market (excluding hospital sales, producer prices)
Source: IESE, 2013

In 2004, the Ministry of Health introduced new regulations with dramatic changes governing all pharmaceuticals and medical products for human use. The implementation of reference country prices is one of them (Price Waterhouse Coopers Turkey, 2013).The more recent and significant improvement was the change in the law regulating advertisement broadcasting at the end of 2011. For the first time pharmaceutical companies were permitted to broadcast their nonprescription medicines on TV and radio provided that those ads would be approved by the MoH. What makes this change more interesting is that MoH has not declared any list of non-prescription medicines since there is no law governing over-the-counter (OTC) products in Turkey. Since the approval of the law by the Parliament, few manufacturers have had ads for their non-prescription drugs after having the detailed inspection and approval of the MoH but many of the companies are not actively advertising their products because of the classification confusions.

In Turkey, the drug regulatory agencies are established within the structure of the Ministry of Health and they are not independent of the Ministry authorities. In many OECD countries there is no direct or indirect government intervention in the function of the drug regulation agencies. This may provide a more liberal decision making process for the governmental authorities responsible for controlling drug promotion activities.

The patient-physician relationship is a culture based relationship and it should be analyzed in that context. The communication between them and the content of a visit to a physician may be considered one of the rituals in many societies, particularly in developing/underdeveloped countries where health care professionals are still perceived as consultants for almost any problem. The desire of drug consumption, particularly among uneducated patients leads to an unnecessarily high rate of overuse medicines.

The most important advantage of DTCA is claimed to be that it empowers consumers to manage their own healthcare by providing necessary information (PhRMA, 2008). This may be very meaningful in individualistic societies where personal initiative and independence are accepted and endorsed.

In societies scoring high on Individualism (IDV), the members are expected to take care of themselves and their families. In contrast, in collectivistic societies individuals can expect their relatives or members of a particular in-group to look after them in exchange for unquestionable loyalty. The key word summarizing the dimension may be “self-orientation”.

New Zealand and the USA are two of the countries with the highest scores on IDV dimension whereas Turkey is in the group of collectivist countries (Cateora *et al*. 2011).

As a matter of fact most of the research into DTCA has been done in individualistic countries partly because of their developed pharma industries with lobbying power. When Dr. Reast conducted his research with 308 physicians from collectivist countries of Greece, Taiwan and United Arab Emirates his findings showed that physicians had significantly differing attitudes towards the likely impacts of DTCA. The respondents from three collectivist societies expressed their preference for as physician-based communication. They all agreed that DTCA both placed a pressure on them to defend their decisions and it led to an increase in unnecessary prescribing (Reast *et al*. 2011).

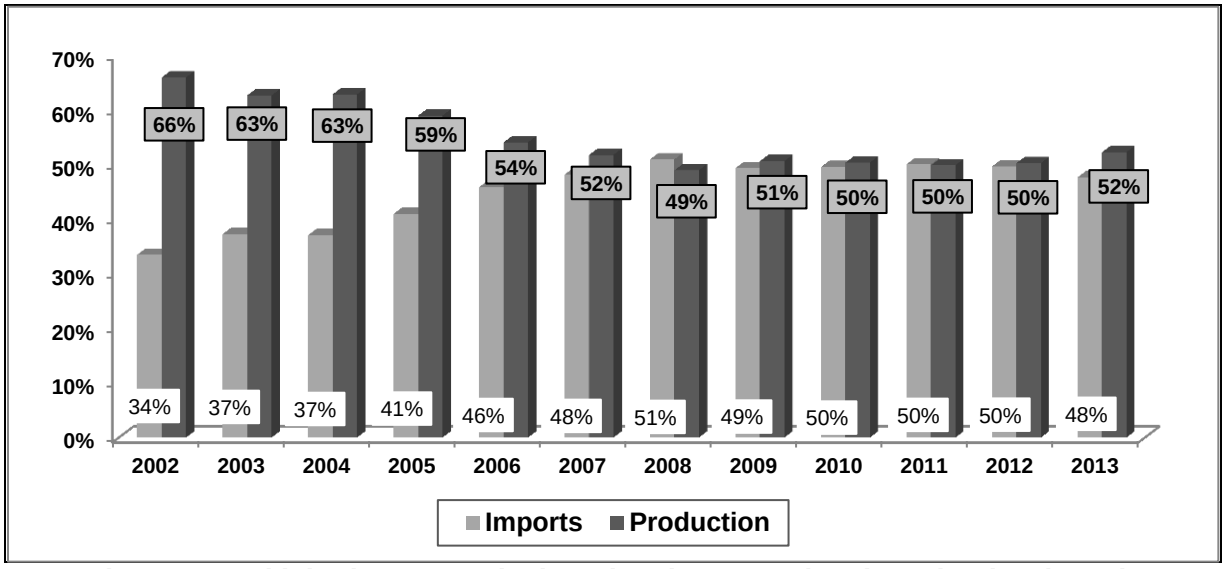


Figure 4. Turkish pharmaceutical market, imports& local production (% TL)
Source: AIFD, 2014

In the Turkish pharmaceutical market, while the share of local production decreased from 66% down to 52% between 2002 and 2013, the share of imports increased from 34% up to 48% (Figure 4).

5. Research

This research was conducted with 329 randomly selected respondents who were asked to fill out the questionnaire in different districts of Istanbul, Turkey. Our objective was to find out the awareness of the consumers of the recent changes in advertising practices in the pharmaceutical market. Secondly, it was aimed to find out how Turkish consumers would perceive the direct advertising of medicines on television/radio if it were legally approved and also to understand the potential influence of those ads on medicine preferences of consumers. The research questionnaire was designed and pre-tested through interviews with a pilot group of respondents. Agreement and disagreement of respondents were measured on a 5-point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). With the objective to reflect the approach of the pharma industry, the sales/marketing executives of the leading producers/distributor in Turkey were also interviewed. The managers clearly expressed their concerns about the recent application of direct advertising on TV since both the legal and the administrative frameworks were missing and their decision to take the lead was not an outcome of a rational planning process. Instead the decision was considered to be the first step of a learning process to get the feedback of the consumers. Besides, the rate of return of the broadcasted TV ads was not only discouraging but also difficult to measure like in many advertising campaigns (Appendix A).

6. Findings

The findings of the research are presented below:

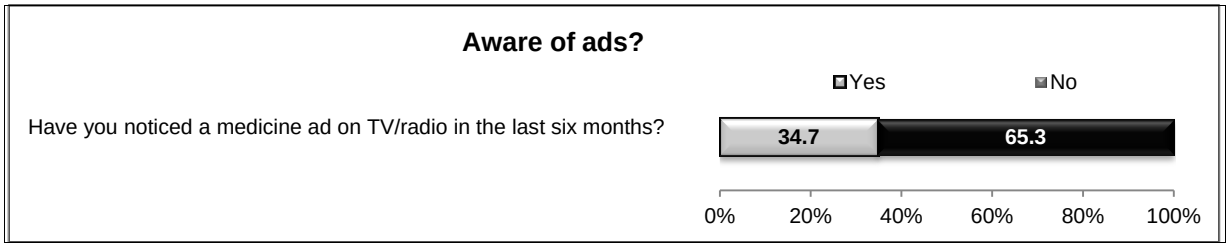


Figure 5. Are the respondents aware of the ads?

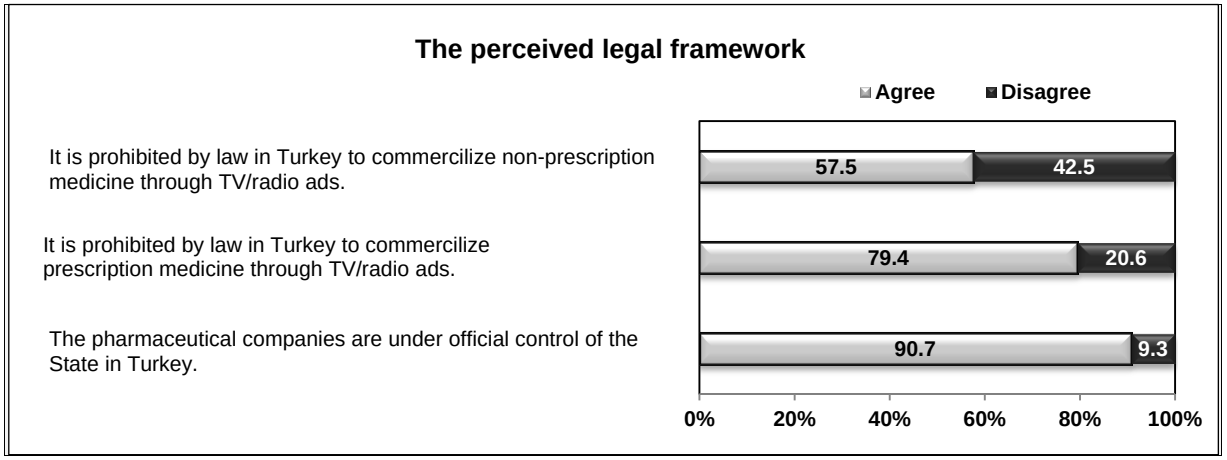


Figure 6. The perception of the legal framework?

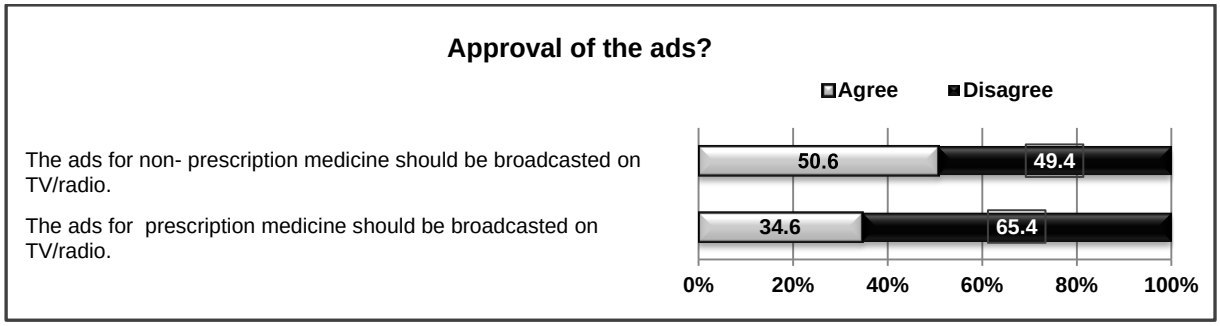


Figure 7. The approval of the ads?

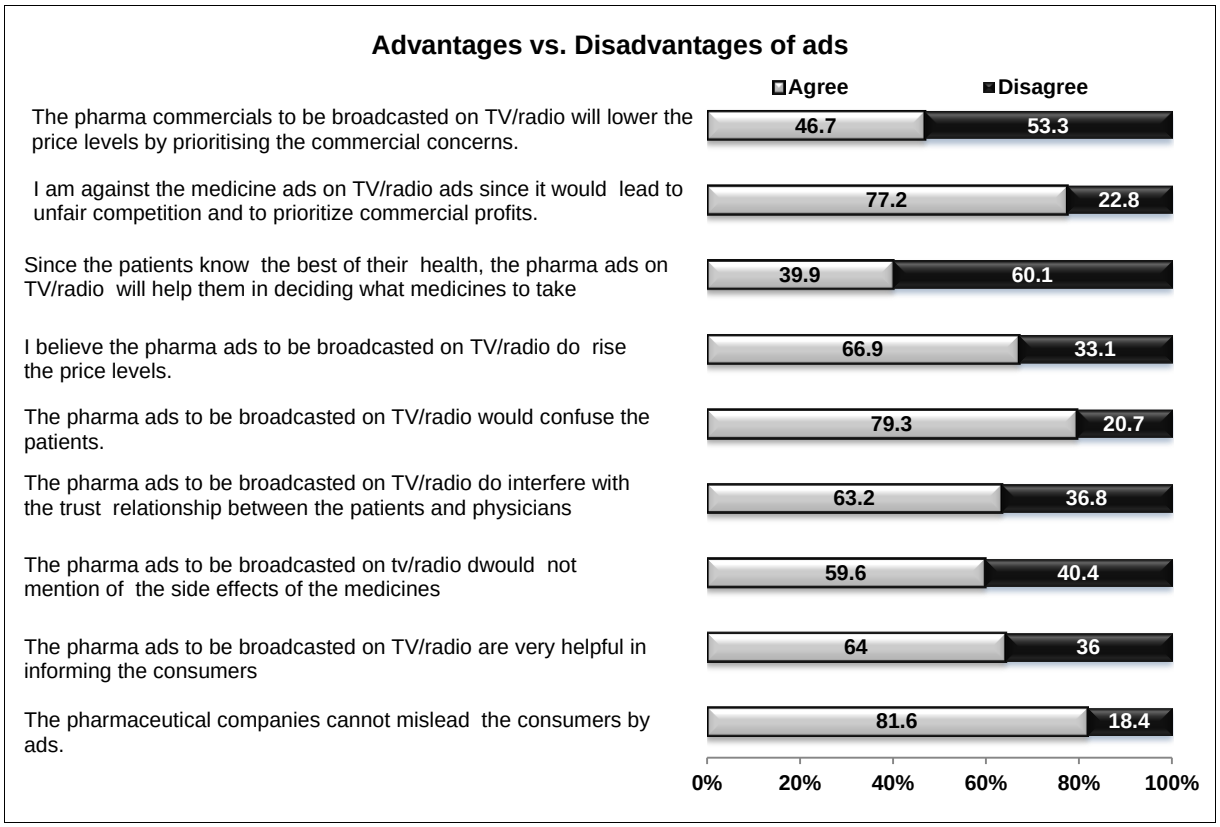


Figure 8. The perceived advantages vs. disadvantages of ads

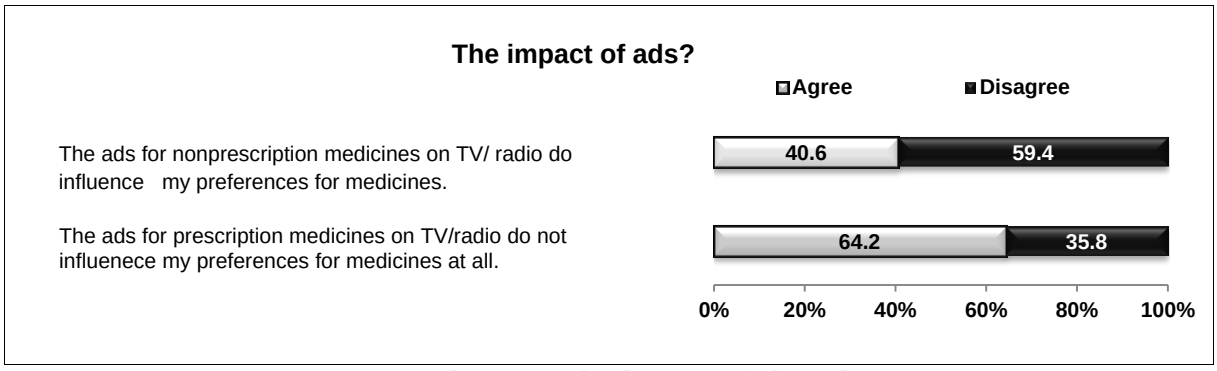


Figure 9. The impact of the ads?

Less than half of the respondents have noticed a medicine ad on either TV or radio in the last six months (Figure 5). Majority (90.7%) of the respondents were aware of the fact that the pharmaceutical companies are controlled by the Ministry of Health and the

commercialization of prescription medicines through TV/radio ads was not permitted (79.4%) (Figure 6).The percentage of the participants who disapprove having ads for prescription medicines is 65.4%. Almost half of the respondents did approve broadcasting ads for non-prescription medicines (Figure 7). Majority (81.6%) of the respondents believed that the companies did not mislead the consumers by using ads. Such ads were thought to confuse the consumers (79.3%); to lead to unfair competition prioritizing commercial profits (77.2%); to cause increases in prices (66.9%); to interfere with the trust relationship between the patients and the physicians (63.2%). The same distrust was also clear in the comments of the respondents about the inclusion of side effects in the ads (59.6%). The respondents did not seem to support the idea of getting help of the TV/radio ads in their decision making process. But at the same time, 64% of the respondents believed that pharmaceutical ads would have been helpful in informing the consumers (Figure 8).

The answers to major question asking for the attitudes of consumers regarding the influence of ads on preferences for medicines also reflected the same distrust toward the idea of advertising prescription medicines. 64.2% rejected the influence of the ads while this rate was only 40.6% for the nonprescription products (Figure 9).

Finally, the potential influence of demographics (gender, marital status, age, income, occupation, having a relative in the medical sector and ownership of insurance policies) of the respondents was also analyzed to investigate any variation but no statistically significant result was obtained.

7. Discussion and Conclusions

It can be said that there is no disagreement regarding the Ministry of Health being the sole authority in controlling the pharmaceutical companies in Turkey and the fact that DTCA of prescription medicines is not permitted.

Consumers did not seem to be dedicated to support neither the advertising nor the influence of prescription medicines in their preferences. This may be because of either having no experience or of any reasons ranging from cultural issues to economic problems. On the other hand, the consumers seemed to be more tolerant of non-prescription medicine advertising. This may be due to the fact that traditionally homeopathic medicines, phytotherapy (herbal) medicines and other alternative medicines have been very popular in Turkey.

Manufacturers also seemed to be confused because of a lack of a detailed classification of medicines and a law /regulation governing the OTC market. The emerging pharmaceutical market of Turkey has been very attractive for many global companies that are in need of guidance by the Ministry of Health since the advantages and the potential risks of DTCA deserve a much more detailed control in Turkish pharmaceutical market.

8. Limitations and Further Research

This research was conducted with a small sample of respondents who were thought to be exposed to a limited number of ads /messages about a few OTC products marketed in Turkey. Since the concept and application of DTCA of OTC products in Turkey are very new yet, the majority of the patients were not experienced about the advantages and disadvantages of this new marketing media. Besides, due to the lack of both definite regulations and accumulated experience in both pharmaceutical and advertising sectors, companies have not been actively promoting their products to the end users. Therefore, this study is exploratory but may be reporting very important initial results.

A more detailed and longitudinal research for various medication groups to assess advertisement exposures and the resulting behaviors of the patients may be more enlightening.

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Appendix

- The name of the interviewee: Cihan Gökyokuş, The Sales Manager of Abdi İbrahim, the leading pharmaceutical company in Turkey.
- Location and exact date of interview: Istanbul, Turkey. April 7, 2014.
- Title of interview: "How does the manufacturing industry react to the approval of the drug promotion to the consumers in Turkey?"
- Interview conducted by Dr. Y. Can Erdem in a private meeting

YCE: Being the sales manager of the leading manufacturer/distributor pharmaceutical company in Turkey, how did you react to the final regulation of the Turkish Ministry of Health to release the advertising restrictions on nonprescription medicines in Turkey?
CG: At first, we were surprised of this radical change of policy since this was the first ever regulation of the Ministry in supporting the commercialization activities in the sector. Then we attempted to be the first company taking advantage of this new opportunity but our applications had no reply since the Ministry staff had no idea of how to proceed. We had difficulties in discovering the responsible departments to apply mainly because the administration of this new regulation had not been planned before. But the major difficulty was the lack of a law of OTC products in Turkey. For years we have been expecting a comprehensive and a detailed differentiation of prescription and non-prescription medicines based on the use of the medicines not on the registration authority.

YCE: Did you know of any organized reaction of other manufacturers/distributors in the Turkish market?
CG: We had the impression that the other companies were also surprised of the change and they probably preferred to wait and see the improvements. Since my company (Abdi İbrahim Corp.) is the market leader, we assumed a sort of responsibility to be the first company to go through the application process. I believe, we did it right in having the first commercials on TV channels. Others like Bayer did follow us.

YCE: Knowing that the Ministry of health is the final authority in controlling all the process of having the ads broadcasted, did you receive a welcoming approach from the Ministry officers?
CG: They were very strict. The content of the ads have been controlled in detail just to make sure that there would be no misunderstanding among the audience. I would say that the responsible staff was very serious in forcing the already approved standards of wording of the ads. This is not complaining since we have no intention to mislead the patients. Besides this new regulation will also help to differentiate the ethic and non-ethic marketing applications of Turkish manufacturers.

YCE: How satisfied are you with being the first pharmaceutical company having an ad on TV? How did you measure the rate of return of this investment?
CG: You sure know that it is very difficult to measure the effect of such a new marketing application on either sales or awareness of the medicines. Moreover, we are allowed to have ads for our non-prescription medicines only under very strict rules. The consumption habits of our patients of such non-prescription medicines needs to be searched before trying to reach them through TV/radio. This is a cultural issue and it will take time for the society to appreciate such ads. To sum up, we are happy to take the lead and hope that the TV/radio ads will be effective in time but it is still early to judge the efficiency of this marketing channel. All the parties including the state authorities, companies, consumer organizations and the industry organizations like trade unions and non-governmental organizations need to spend time and effort to get the best of this marketing channel for all the related parties.

ECONOMIC TRANSFORMATION AND SOCIAL INEQUALITY IN EURASIAN COUNTRIES

Leonid Grigoryev* and Vera Kulpina**

Abstract: Patterns of income distribution and social structure place certain constrains on any country's economic development. Economic growth also causes changes in social structures but rather differently depending on a country's level of development. On the one hand, Eurasia includes industrially developed countries with a comparatively high-income level and mature civil society but currently experiencing very slow recovering from the economic crisis. On the other hand, there are emerging Asian countries with a considerable share of poor people and lack of democracy but showing fast economic growth and rising global influence. In terms of growth and inequality Eurasian countries are as different as all the countries together. This paper compares correlations between economic progress and inequality of 55 countries in 1992-2010 both in general and by income groups. It shows that as a part of middle (and low) income trap social inequality changes go quite slow for fast growing countries. Consequently, success of development and achieving social stability will need comprehensive economic policy, not just GDP growth.

Keywords: Economic Growth, Income Inequality, Eurasia

1. Introduction

In order to analyse global economic and political problems of the 21st century (poverty, migration, growing energy consumption, etc.) it is very important to understand our modern society structure, countries' specifics in inequality and their transformations. Although in 2011 developing countries became equal to the developed ones by absolute GDP, their productivity, technological progress and life quality levels are still significantly different. Two latest decades showed some new trends in social structures change: fast middle class formation in most developing countries, transformation of former socialistic countries communities and drastically deepening inequality while improving the overall level of economic development.

The biggest economies in terms of absolute GDP are totally different both by GDP per capita and by social structure (Table 1). For example in Japan, the richest own 5 times more of income than the poorest and in South Africa this number is 50 times more.

There are many studies focused on the influence of institutions quality (EBRD, 2013), democracy (Barro, 1997), (Olson, 1993), inequality (Simoes*et al.* 2012) and other society peculiarities on economic growth. On the contrary, in this paper we examine the influence of economic development (presented as GDP per capita growth) on inequality (measured as income share by top 10% – hereinafter IS10).

OECD 1998 report revealed that between the mid-1970s and the mid-1990s in high income countries (with few exceptions) inequality (measured by the Gini coefficient; the squared coefficient of variation; the mean-log deviation and the Atkinson index) was growing. The governments tended to enlarge taxes and transfers system and transform it into a more redistributive one (OECD, 1998). As a result elderly people benefited from this transformation

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while families headed by young adults have suffered losses. In analogous study of 2011 OECD again stated the increase in inequality in most of its member-countries (OECD, 2011). The report explains growing income inequality mostly through changes in wages and salaries distribution. Using wide range of statistical indicators OECD researchers state more rapid growth in gap between the top and the middle than in gap between the middle and the bottom. They also prove a rise in top income recipients share among all the member-countries, especially in United States.

Table 1. Economic and social indicators for the biggest economies

Country	Year	Gini ratio	GDP PPP per capita 2010, thousand 2005 $	Income shares by top and bottom deciles in total income, %	
				bottom 10%	top 10%
India	2005	33	3.1	3.7	29
China	2009	42	6.8	1.7	30
South Africa	2009	63	9.5	1.2	52
Brazil	2009	55	10.1	0.8	43
Russia	2009	40	14.2	2.8	32
Japan	2010	34	31.0	4.8	26
Germany	2010	29	33.5	3.2	23
USA	2010	38	44.0	1.9	30

Source: World Bank

Moreover, the problem of growing inequality in US was mentioned in the recent Report of the President (The Economic Report of the President, 2013, pp. 60-61, Box 2-2). According to the report, inequality has been growing for the past 30 years and besides causing social instability, affects aggregate demand as in the short run top income recipients spend smaller share of their earnings on consumption. Due to data missing, US were excluded from our analysis, but above mentioned papers help to adjust the global picture.

There are fewer papers on global not regional income distribution trends. One of the latest UNU-IHDP and UNEP report mentions growing inequality not only in OECD countries but also all over the world and sees main obstacles to social stability in boosting consumerism short-term political strategies, growing population and correspondingly rising natural resources use (UNU-IHDP and UNEP, 2012).

One of the most famous works on global inequality written by Simon Kuznets in 1955 states that the connection between GDP per capita and inequality has inverted-V-shape, i.e. inequality grows at the early stage of development till certain point and then starts to fall. Afterwards there were many researches based on different periods and countries confirming or refuting Kuznets curve existence. Our research shows more complex relations between economic progress and inequality change than Kuznets curve but also has proved that for middle-income countries it is difficult to switch from inequality growth to its fall.

Grigoryev and Parshina (2013) recent study was focused on the cluster analysis of 150 countries by GDP per capita groups (Table 2). It showed that in absolute terms clusters moved away from each other but comparatively they got closer. The study also revealed the decrease in the number of top cluster countries. We used these borders to set up new clusters for this inequality research.

Table 2. Countries clusters by GDP per capita in 1992 and 2010

	Fixed borders and countries groups				Shifted borders (reflecting 45% global GDP per capita growth)		
Cluster	Cluster borders by 1992, thousand $	Number of countries	Average GDP PPP per capita		Cluster borders in 2010, thousand $	Number of countries	Average GDP PPP per capita
			1992	2010			2010
1	>25	15	31.8	39.8	> 36.305	9	47.3
2	15.001 – 25	15	21.3	30.7	21.784 – 36.304	24	29.6
3	10.001 - 15	11	12.2	19.0	14.523 – 21.782	8	18.1
4	5.001 – 10	30	7.2	11.6	7.262 – 14.522	34	10.9
5	2.251 - 5	27	3.4	5.5	3.269 – 7.261	27	4.9
6	1.251 – 2.25	20	1.7	2.9	1.817 – 3.267	17	2.4
7	<1.25	32	0.8	1.2	<1.815	31	1.1

Source: Grigoryev and Parshina(2013)

2. Data and Indicators

As mentioned above, we based this research on studies in the fields of macroeconomics, institutional economics, sociology, etc. It analyses the impact of economic progress on social structures of different countries. We used data on GDP per capita growth as economic development indicator and income share held by highest 10% or top decile as an indicator of inequality. There are several reasons for these factors have been chosen for the study. GDP per capita is a common measure of economic progress and will be used here due to its meaning and the availability of trustworthy data. Prevailing measure of inequality is Gini ratio, however, even World Bank warns against overestimating this indicator while analyzing inequality. Top income recipients share in total earnings seems to better indicate inequality situation and is also widely used in analyzing countries' economic and social problems (Roine and Waldenstrom, 2010). Atkinson (2013) states that rise in inequality can be described as "upper part of the earnings distribution has been racing away". In our opinion this indicator reflects how concentrated is the allocation of resources and where the immediate results of economic growth go. Consequently, if this share stays high and stable this society doesn't change and progress much despite GDP per capita growth. Undoubtedly this indicator has very strong positive correlation with Gini ratio – and our data also proved it. Moreover, both of them seem to have quite high negative correlation with GDP per capita growth (Table 3).

Table 3. Correlations between GDP per capita, income share by top 10% and Gini ratio

	Gini 1992	Gini 2000	Gini 2010	IS10 1992	IS10 2000	IS10 2010
GDP 1992	-0.50			-0.50		
GDP 2000		-0.52			-0.54	
GDP 2010			-0.47			-0.46
Gini 1992				0.97		
Gini 2000					0.97	
Gini 2010						0.97

However, for some countries Gini ratio in comparison with income share by the richest shows some deviations that may be treated as inequality under- or overestimation (Figure 1). For the selected countries the biggest underestimation can be observed for Canada, Pakistan and Egypt. For other countries like Australia, Spain, China Gini ratio, on the contrary, overestimate inequality. The bigger income share of the 10th decile is – the less is left for any type of distribution for the nine other deciles (in most cases with 9th decile taking around 15% of income) (Grigoryev and Salmina, 2011).

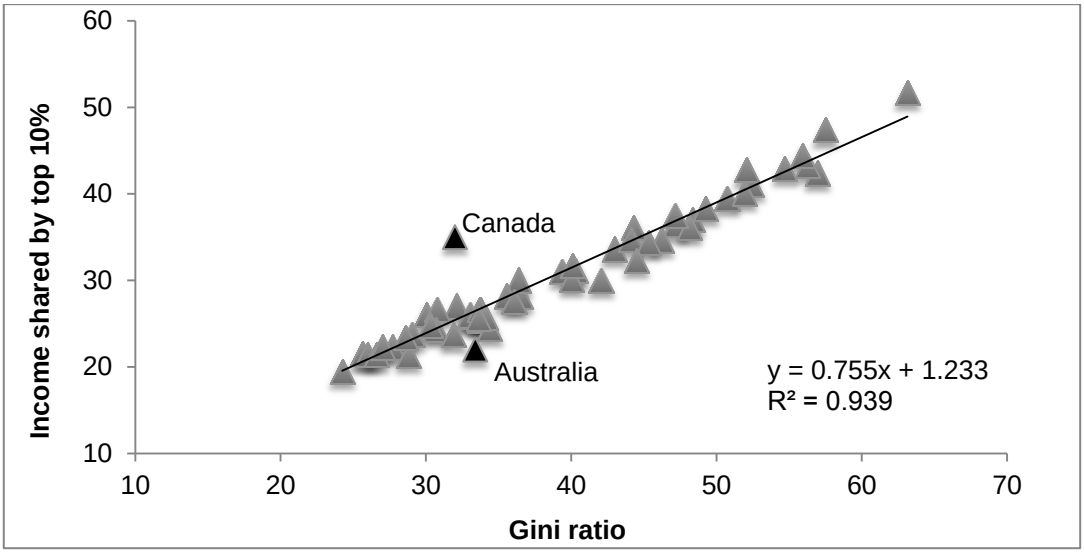


Figure 1.Gini ratio vs. Income share by top 10%

The period under analysis is 1992 to 2010 as it is a period of sustainable and high growth in many countries, 45% increase in global GDP per capita. We divide this period into two: 1992-2000 and 2000-2010 with respective growth of 16% and 25%. It is important to remember for countries in transition, especially former Soviet Union ones, that contrary to the global trend of 1992-2000 they suffered GDP decrease. As the analysis has shown, in terms of inequality changes these two periods are rather different. Appropriate data is available for 55 countries (Gini ratio is available for 74 countries) from World Bank, OECD, Eurostat and national statistics of Canada and Japan (Appendix, Table A1).

As the selected countries differ significantly in terms of income, economic structure, national specifics we also analyzed them separately within three groups: 1992 level of GDP PPP per capita lower than 4 thousand dollars 2005 constant prices, between 4 and 17 thousand, more than 17 thousand. Such group borders allow these countries to stay within the same group in terms of both fixed and flexible clusters (Grigoryev and Parshina, 2013). The first group (low-income countries in this paper) includes 17 countries, the second one (middle-income countries in this paper) – 23 and the third group (high-income countries in this paper) includes 15 countries (Appendix, Table A1). Together they represent all the

continents and stages of development; therefore their trends in equality (or inequality) can reflect global trends.

Our initial hypothesis was “Economic growth helps to decrease inequality”, however; the research outcome is rather vague. This work still leaves several important questions for further studies.

3. Global Trends in Inequality

3.1. General Trends

Over a period between 1992 and 2010 two different prevailing trends in inequality level in the selected countries could be observed:

- Leveling or growth of inequality: measured by Gini ratio – 19 from 74 countries; measured by income share by top 10% – 11 from 55 countries (UK, Finland, Canada, China, Indonesia, Japan, Uruguay, Honduras, Costa-Rika, Zambia, Poland);
- Inequality increase in 1992-2000 and decrease in 2000-2010 resulted in lower Gini ratio – 22 from 74 countries in 2010 in comparison with 1992 and lower income share by top 10% – 12 from 55 countries (Philippines, Argentina, Romania, Egypt, Malaysia, Turkey, Chili, Mexico, Tunisia, Panama, Turkey, Pakistan).

Basically, in 1992-2010 half of the countries has shown increase in inequality, while the other half has shown a decrease. In 1992-2000 inequality (IS10) in most countries stayed the same or rose (36 from 55). On the contrary, in 2000-2010 inequality in most countries reduced (32 from 55). Maximum, minimum, average and median income share by top 10% was higher in 2000 than in 1992, and also higher (except maximum) than in 2010 (Table 4). It is difficult to make conclusion based on aggregated and averaged data, thence we divide countries into income clusters and include separate analysis of the two periods.

Table 4. Gini coefficient and income share by top 10% in 1992, 2000 and 2010

	Ginicoefficient (74 countries)			**Incomesharebytop 10% (55 countries)**		
	1992	2000	2010	1992	2000	2010
Maximum	59.3 (SouthAfrica)	62.8 (Bolivia)	63.1 (SouthAfrica)	46.7 (SouthAfrica)	48.8 (Bolivia)	51.7 (SouthAfrica)
Minimum	20.9 (Sweden)	22.7 (Denmark)	24.2 (Romania)	19.4 (Belarus)	20 (Finland)	19.5 (Romania)
Average	37.7	38.9	37.8	31.4	32.2	31
Median	34.7	35.8	35.6	30.7	31.5	30
Standarddeviation	10.6	10.4	9.4	8.1	8.4	7.8

Distributions of GDP per capita growth and change in inequality during two periods show the same tendency (Figure 2 and Figure 3). Obviously, 1992-2000 can be described as increase and 2000-2010 as decrease in inequality, especially at higher levels of GDP growth. However, the picture is slightly different for different income groupings.

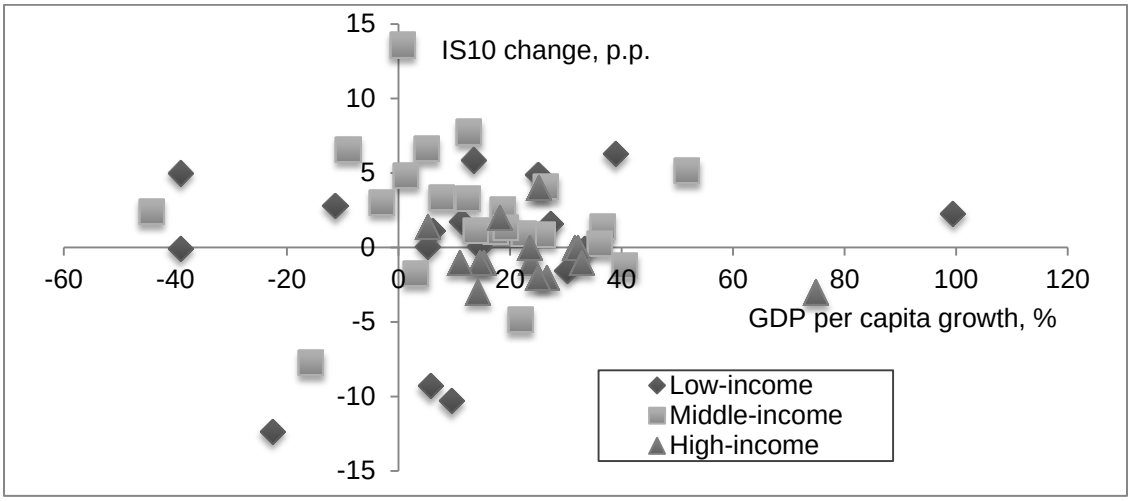


Figure 2. GDP per capita and IS10 change 1992-2000

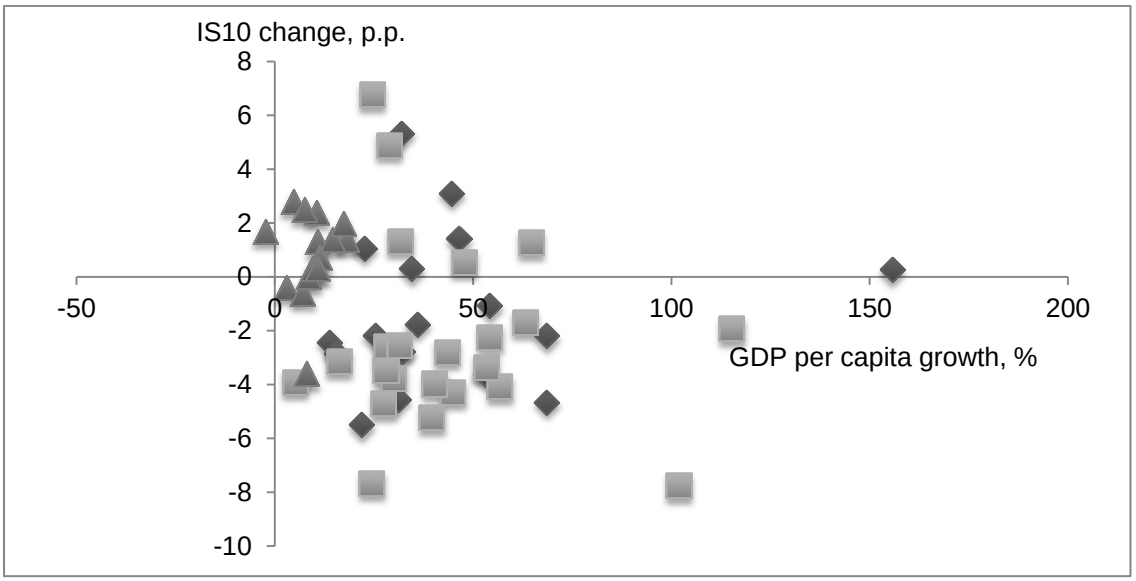


Figure 3. GDP per capita and IS10 change 2000-2010

3.2. Trends by Income Groups

The global tendency of growing in 1992-2000 and falling in 2000-2010 inequality level can be also observed from the groups of countries data (Table 5). Corresponding with Kuznets concept, high-income countries do have lower inequality than others – around 24% of total income is held by 10th decile, however, there is no big difference between middle-income or and low-income countries – average number here is around 35%. Thus we can confirm the existence of low and middle-income traps that make socio-economic progress rather hard from a certain income level without comprehensive institutional changes. Growth is not making the progress by itself.

Table 5. Income share by top 10% in the three groups of countries

Incomeshare bytop 10%		GDP PPP percapita, thousanddollars 2005 constantprices		
		<4	4-17	>17
Average	1992	34.0	34.2	24.2
	2000	33.9	36.6	23.7
	2010	32.6	34.2	24.5
Median	1992	34.8	34.3	23.0
	2000	33.5	37.5	23.0
	2010	30.0	34.7	24.3
Standardd eviation	1992	7.3	8.3	2.7
	2000	6.4	7.8	3.7
	2010	6.7	8.2	3.4
Numberofcountries		17	23	15

Figure 4 shows that middle-income countries in 1992-2000 experienced such a sharp increase in inequality so now their situation is even worse than in low-income countries in these terms. High-income countries income share by the richest was staying more or less stable.

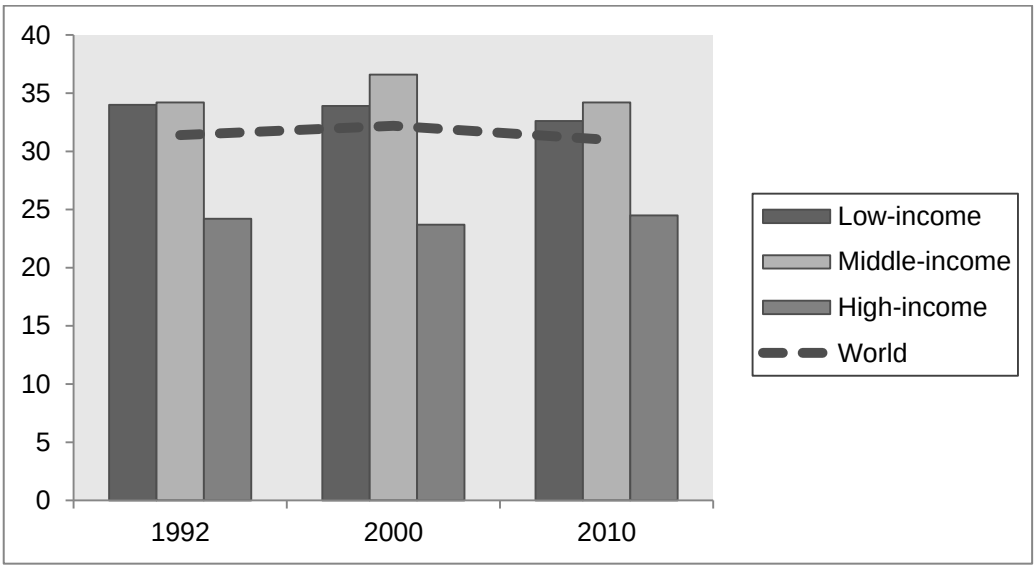


Figure 4. Income share by top 10% by GDP per capita groups of countries

4. Regression Analysis

Insufficient data (only 55 countries) makes econometric analysis quite hard to conduct, however, there are few statistically seen correlations. Logarithmic regression for 2000-2010 shows that income share by top decile in that period had -0.15 GDP per capita elasticity, in other words, 1% of GDP per capita growth within the period on average has led to 0.15% decrease in inequality:

$$LN(IS10/2010) = 0.88 * LN(IS10/2000) - 0.15 * LN(GDP/2000-2010) + 0.40$$
$$R^2 = 0.88 \quad (1)$$

Thus we can prove our initial hypothesis. But the period of 1992-2000 doesn't show any good statistical results (Table 6).

Table 6. Regression analysis results by two periods

	Coefficientbefore GDP growth	p-value
1992-2000	0.016	0.846
2000-2010	0.150	0.020

Econometric analysis by groups is even more problematic as there are not enough observations. There are only two comparatively significant tendencies – negative correlation between GDP per capita growth and inequality change for middle-income countries in 2000-2010 and high-income countries in 1992-2000 (Table 7).

Table 7. Regression analysis results by groups and two periods

	Low-incomecountries		Middle-incomecountries		High-incomecountries	
	Coefficientbefore GDP growth	p-value	Coefficientbefore GDP growth	p-value	Coefficientbefore GDP growth	p-value
1992-2000	0.038	0.758	0.058	0.632	-0.241	0.176
2000-2010	0.037	0.772	-0.157	0.182	0.015	0.965

However, comparing Figure 2 and Figure 3 and these regression results one may see that even insignificant coefficients show at least correct signs vis-a-vis GDP per capita growth.

5. Eurasia Case

For this study the Eurasia region is considered to be a very interesting case. 31 of the 55 selected states are Eurasian: 8 low-income, 9 middle-income and 14 high-income countries. Considering other Eurasian countries excluded from statistical analysis, in socio-economic terms this region can be divided into three big groups: the first is Old Europe and Developed Asia with high GDP per capita and low inequality, the second is Post-communist Europe and Asia with low GDP per capita and low inequality and the third is Developing Asia with low GDP per capita and high inequality (Appendix, Table A2). There are few exceptions like Russia – post-communist country but with rather high inequality or Pakistan – developing Asian country but with rather low inequality.

In the recent years these three groups have became little closer by GDP per capita. However, the difference is still considerable, especially in terms of social structure. OECD countries are still recovering from the global economic crisis, their growth is slow and unstable, while their inequality levels stay low, they didn't seem to decrease anymore. Developing countries, although having inequality level higher than OECD neighbours, made certain progress in one or both of the chosen periods. Their income inequality can be explained through economic restructuring and can't be referred to national specific as in Latin America.

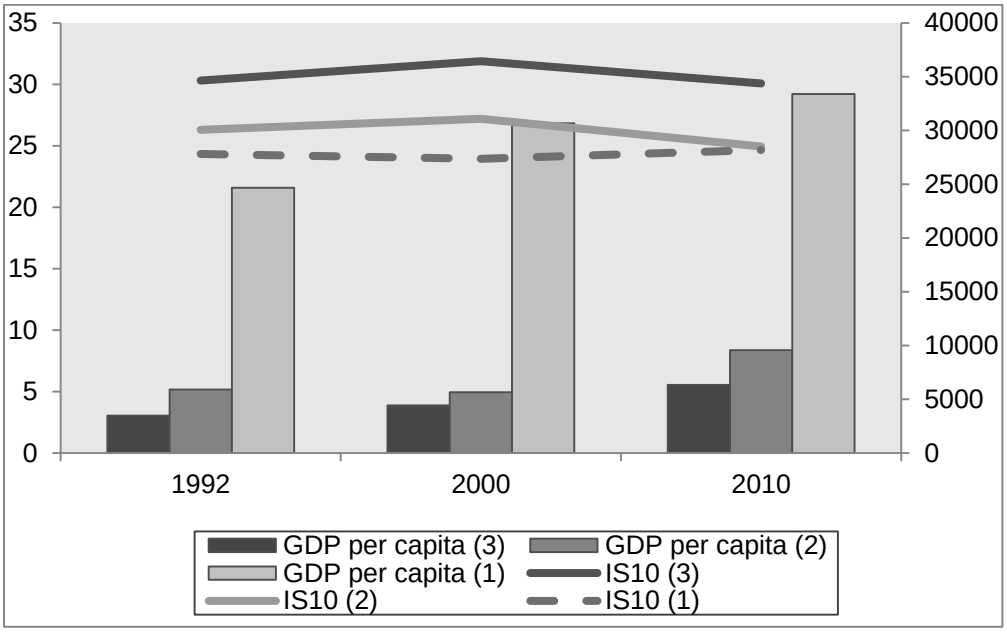


Figure 5. GDP per capita and income by 10th decile in Eurasian countries

Under the given period countries from the first group moved the same path as high-income countries described before. The second group (transition countries) was able to reduce inequality even more to the level of the first group (Figure 5). But it must be taken into account that several of these countries in 1990s (contrary to the global tendency) suffered GDP per capita fall. For example, between 1992 and 2000 Russia and Kyrgyz Republic both lost around 20% of GDP per capita and decreased income share of top decile by 8 and 12 percentage points respectively. Moldova and Kazakhstan in their turn while suffering GDP per capita fall had a considerable increase in inequality – 5 and 7 p.p. Between 2000 and 2010 this trend reversed – inequality decreased in those countries which in 1992-2000 stated its growth and vice verse. More successful Eurasian transition countries – Poland and China (120 and 410 % of GDP per capita growth in 1992-2010) had their income share by top 10% higher in 2000 in comparison with 1992 and in 2010 in comparison with 2000. The third group moved the same as most middle-income countries.

6. Conclusions and Future Research

Our research has shown that inequality measured by income share of the richest still changes very slowly. It also proved that in the first part of the period under our analysis (1992-2000), there was even a rise in inequality, especially in middle-income countries. In the second part (2000-2010), there was some fall in inequality but mostly not below the starting level of 1992. We also evidenced low- and middle-income traps as low-income countries and middle-income ones have more or less the same social structure. Eurasian countries divided into three socio-economic groups stay very different in terms of inequality.

There are still many questions to be answered, e.g.: “Is there any GDP per capita growth rate where inequality starts to decrease and what is this rate?” or “Which impact is stronger - economic growth on inequality or inequality on economic growth?”; “Why for some countries inequality increases in the period of high growth?”; “What was the impact of Great Recession 2008-2009 and long recovery on inequality?”, etc. These problems are crucial for researches, governments, international organizations, etc. and will be challenged in our future works.

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Appendix

Table A1. GDP PPP per capita (international dollars 2005 constant prices) and income share by top 10% in 1992, 2000 and 2010

	GDP per capita			Income share by top 10%		
	1992	**2000**	**2010**	**1992**	**2000**	**2010**
Low-income countries						
Uganda	579	772	1,130	34.76	34.69	36.1
Bangladesh	759	949	1,464	23.2	28.11	27.03
Mali	763	835	1,095	40.69	30.39	25.83
Zambia	1,171	1,038	1,370	39.28	42.06	47.39
China	1,338	2,667	6,819	27.44	29.72	29.98
Senegal	1,394	1,474	1,678	42.82	33.53	31.1
Pakistan	1,748	1,854	2,324	27.09	28.21	26.05
Kyrgyz Republic	1,947	1,507	2,026	40.26	27.9	28.2
Sri Lanka	2,164	3,005	4,601	27.38	33.65	30.03
Indonesia	2,338	2,679	3,873	25.01	25.08	28.18
Philippines	2,414	2,686	3,554	34.69	36.4	33.62
Madagascar	2,720	1,657	2,793	36.93	36.87	34.68
Moldova	2,720	1,657	2,793	25.64	30.63	25.97
Honduras	2,736	2,880	3,531	41.29	41.35	42.4
Bolivia	3,075	3,488	4,252	42.92	48.78	43.28
Egypt, Arab Rep.	3,328	4,236	5,760	26.73	28.34	26.58
El Salvador	3,958	5,155	5,953	41.38	39.84	37
Middle-income countries						
Dominican Republic	4,080	5,737	8,312	41.95	40.7	36.41
Peru	4,360	5,514	8,503	34.29	38.35	36.11
Paraguay	4,540	4,572	5,313	30.68	44.27	41.11
Thailand	4,568	5,568	7,987	38.65	33.79	30.99
Tunisia	4,807	6,054	8,495	30.69	31.57	27.59
Belarus	5,731	5,810	12,505	19.4	24.22	22.29
Kazakhstan	5,942	5,406	10,916	24.94	31.51	23.75
Colombia	6,283	6,597	8,450	40.38	47	44.43
Romania	6,347	6,838	10,715	20.19	23.55	19.46
Ecuador	6,373	6,184	7,692	42.97	46	38.32
Costa Rica	6,632	8,116	10,456	33.68	34.61	39.5
Ukraine	6,635	3,696	6,029	20.81	23.2	21.5
Panama	6,701	7,869	12,067	42.38	43.43	40.08
Brazil	7,017	7,906	10,079	39.91	47.65	42.93
South Africa	7,411	7,641	9,516	46.66	44.93	51.69
Poland	7,748	11,753	17,372	21	26.13	26.67
Malaysia	7,774	10,619	13,801	37.02	38.42	34.65
Uruguay	8,042	9,551	12,569	30.52	33.05	34.36
Chile	8,080	10,990	14,443	45.06	45.31	42.77
Turkey	8,298	9,898	12,671	32.26	33.59	30.1
Argentina	9,160	10,290	14,363	34.27	37.54	32.3
Russian Federation	10,219	8,613	14,182	38.16	30.41	31.68
Mexico	10,382	11,810	12,412	40.26	41.42	37.51

Table A1. Continued

High-income countries						
Portugal	17,091	21,155	21,780	28	27	26.6
Greece	17,618	20,317	23,999	25	24	25.4
Ireland	18,983	33,189	36,786	26	23	24.3
Spain	20,355	25,147	26,908	25	25	24.4
Finland	20,763	27,333	31,322	20	20	21.4
United Kingdom	22,289	29,445	32,766	25	25	25.7
Australia	23,296	29,507	34,621	22	20	22
Italy	24,264	27,717	27,059	25	22	23.7
France	24,639	28,210	29,522	23	22	24.8
Belgium	25,747	30,399	32,842	23	25	21.4
Canada	25,929	32,447	35,223	31	35	35
Netherlands	26,956	33,691	36,888	23	21	21.3
Germany	27,313	30,298	33,512	22	21	23.4
Japan	27,475	28,889	31,030	21.7	23.1	25.6
Luxembourg	45,999	61,091	67,742	23	22	22.3

Source: World Bank, Eurostat, Statistics Canada, Statistics Bureau of Japan

Table A2. Eurasian countries groups by GDP per capita and inequality

Old Europe + Developed Asia	**Post-communist Europe and Asia**	**Developing Asia**
High GDP per capita and low inequality	Low GDP per capita and low inequality	Low GDP per capita and high inequality
Portugal, Greece, Ireland, Spain, Finland, United Kingdom, Italy, France, Belgium, Canada, Netherlands, Germany, Japan, Luxembourg	Kyrgyz Republic, Moldova, Belarus, Kazakhstan, Romania, Ukraine, Poland, Russian Federation	Malaysia, Turkey, Bangladesh, Thailand, Sri Lanka, Indonesia, Philippines, Pakistan, China

Aims and Scope

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