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RECENT TRENDS IN DIVIDEND POLICY OF ESTONIAN COMPANIES

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Abstract

Current study investigates recent trends in dividend policy of Estonian companies before, during and after the financial crises of 2008-2009. In order to describe the payout policy of Estonian companies both aggregate data for the corporate sector as a whole as well as company level data for a large sample of Estonian companies will be used. Estonian case is of a particular interest due to the unique tax system, which was introduced in 2000. According to this system the moment of corporate income taxation is postponed from the moment of earning the income to the moment of its distribution.

Key words: corporate finance, dividend policy, corporate taxation

1. INTRODUCTION

In year 2000, Estonia implemented a new and innovative corporate taxation system, according to which firms must pay income tax only on profit distributions, special benefits, costs not connected with firm’s commercial activities and possible hidden profit distributions (e.g. payments to residents of low tax rate territories (so-called off-shore regions), gifts, etc.). Essentially, the moment of corporate taxation was postponed from the moment of earning the profit to the moment of its distribution. Currently there are only two countries that use such a system: Estonia and FYR of Macedonia (since 2008).

A lot of research on dividend policy has been carried out in developed countries with traditional corporate taxation systems. Several stylized propositions about dividends are formulated based on those numerous theoretical and empirical studies (e.g. dividends do follow profits, dividends are sticky, dividends are less volatile than profits and dividends do follow the life cycle of the company) and these can be found in many corporate finance textbooks (Block et al 1994, Brigham and Houston 1999, Damodaran 2010). However, since there are only a very few studies that investigate dividend policy under distributed profit taxation (Sander and Trumm 2006, Hazak 2007, Teral et al 2012), one cannot be sure that those basic principles do also hold in case of distributed profit taxation.

The aim of the current study is to investigate the validity of those basic propositions in case of Estonia. Our study employs both aggregate data for the corporate sector as a whole as well as firm level data to describe the trends and regularities in dividend policy of Estonian companies. Our dataset includes also the period of latest financial and economic crises (2008-2009), which allows us to analyse the dividend policy in case of extremely negative economic environment.

¹ The study has been prepared with financial support received from Estonian Ministry of Education and Research funding SF0180037s08. The authors are thankful to Olga Skiruk from Estonian Central Registry of Securities for providing ownership data and Jaan Masso for providing the detailed financial data from Estonia Commercial Register database.
The paper is structured as follows. The first section describes most widespread stylized propositions about corporate dividends and connects these with relevant theoretical background and previous empirical studies. Next section presents empirical data about dividends in Estonia and our own analysis and discussion of the results. The paper ends with conclusion part.

2. STYLIZED PROPOSITIONS ABOUT CORPORATE DIVIDENDS AND THEIR THEORETICAL BACKGROUND: A LITERATURE REVIEW

In their famous paper, Miller and Modigliani (1961) argued that in the absence of any market imperfections and frictions, dividend policy is irrelevant. However in practice firms do not behave like they do not care about dividends. Different surveys (Brav et al 2005, Bancel et al 2005) have showed that managers are reluctant to reduce dividends – i.e. dividends are sticky. While this tendency is weaker in civil law countries, like Germany, the main stylized facts about dividends (including the stickiness of dividends) formulated by Lintner (1956) are still valid (Bancel et al 2005). In U.S. 94% of respondent companies claimed that they will try to avoid cutting dividends per share (Brav et al 2005), in Europe the number was 82.8% (Bancel et al 2005). A closely related concept to sticky dividends is dividend smoothing. Survey evidence both from U.S. as well as from European countries confirms that managers try to smooth dividends. 90.1% of U.S. financial managers (Brav et al 2005) and 77.4% European financial managers (Bancel et al 2005) claim that they consider it very important to maintain a smooth dividend stream from year-to-year. The smoothing of dividends also means that they are less volatile than profits.

The stickiness of dividends and dividend smoothing can be explained by several theories, including signalling theory, clientele theory and agency cost theory. According to the signalling theory, companies use dividend policy to convey private information about the firm’s future prospects to the market (see e.g. Miller and Rock 1985, John and Williams 1985, Kumar and Lee 2001). Signalling models are consistent with the empirical evidence – stock prices change in the same direction as the change in dividends (Kalay and Lemmon 2008). Dividends initiations and dividends increases are mostly viewed as positive signals by the market; dividends cuts are usually followed with decreases in share prices (Asquith and Mullins 1983). While it is not yet clear, what type of information (whether about future prospects, about riskiness of the company or about persistence of past earnings) dividend changes convey, the positive relationship between the dividends and stock prices is a fact.

Another way in which asymmetric information may lead to dividend smoothing is through the relationship between financial constraints and cash holdings. That is, firms for which external finance is costly will be reluctant to increase dividends, even following a positive earnings shock (Leary and Michaely 2011).

Sticky dividends and dividend smoothing can also be explained by dividend clientele. The dividend clientele effect was originally suggested by Miller and Modigliani (1961) on the basis of investor preferences for payout ratios. In a world without information asymmetry, transaction and agency costs, but with different tax rates on dividends and capital gain, companies should choose the dividend policy which is the most tax effective (Sander 2007). However, in reality different investors may prefer different dividend policies due to differential tax treatment of investors (e.g., non-flat tax rates, different tax rates for domestic and foreign investors, different tax rates for individual and institutional investors, etc) (Ibid). Allen and Michaely (2002) distinguish between two types of clientele models: static and dynamic. If the static form of dividend clientele really exists, firms should not change their dividend policy too often, as it would cause shareholders to switch stocks and burden them with brokerage costs,
and in many cases also with capital gain taxes. Brav et al. (2005) document that managers hesitate to introducing extreme changes in their payout policy as it might cause changes in ownership structure, thereby negatively affecting the company’s stock price. Most of the earlier studies used static models of dividend clientele. Elton and Gruber (1970) among others found some evidence to confirm the existence of static clientele. However, direct studies of stock ownership have found no significant tendency for high-income groups to prefer stocks with a low dividend yield (Kalay 1982). The impact of static dividend clientele is weakened if investors could trade dynamically to reduce their tax liability. In fact, there exist several dynamic tax avoidance strategies that can be used to reduce the personal level taxes. For example, ex-dividend day strategy can be used in countries where differential tax treatment of dividends and capital gains exists in conjunction with tax heterogeneity among investors (Sander 2007).

Agency costs theories suggest that high and smoothed dividends forces firms to raise external capital to meet any financing needs and such exposure to the discipline of external capital markets reduces agency cost (see e.g. Easterbrook 1984, Jensen 1986). Allen et al (2000) argued that managers use high dividends to attract institutional investors, who are valued for their monitoring abilities. However, once institutional investors have been attracted, they have the ability to impose a large penalty in response to dividend cuts, so managers are forced to smooth their dividends. This last explanation implies also to dividend clientele effect.

Michaely and Roberts (2012) show that private firms smooth dividends significantly less than their public counterparts. This suggests that the scrutiny of public capital markets plays a central role in the propensity of firms to smooth dividends over time (Ibid).

Another stylized fact about dividend policy is, that dividends do follow the life cycle of the company. The firm life-cycle theory of dividends contends that the pattern of cash dividends changes over a firm’s life cycle (Mueller 1972). Young and newly established firms rarely pay dividends, while mature firms usually distribute some if not all of their free cash flows to investors. Empirical research mostly confirmed the existence of such pattern (see e.g. Fama and French 2001, DeAngelo et al. 2006, El-Ansary and Gomaa 2012).

3. DIVIDENDS IN ESTONIA: AN EMPIRICAL ANALYSIS

In studying dividend policy empirically, researchers usually rely on statistical analysis of published financial data or on data collected via surveys (interviews and questionnaires) (Weigand and Baker 2009). In this paper we use the first approach. First we analyse aggregate corporate sector data for the period of 2000-2011. The time period under considerations includes years with very rapid economic growth (during 2000-2007 the average annual GDP growth was 7.9% in Estonia), extremely deep economic crisis in 2008-2009 (in 2008 GDP fell 4.2% and in 2009 even more – 14.1%) and first year of recovery (in 2010 GDP rose 3.3%). The following Figure 1. depicts net income and declared dividends for the Estonian corporate sector (excluding financial institutions).

The average payout ratio (calculated as dividends divided by the net income from the previous year) during the time period 2000-2010 was around 34%. The data show quite clearly that aggregate dividends are less volatile than profits and firms are reluctant to decrease dividends. While in 2008, aggregate net income was three time lower than in 2007, aggregate dividends only decreased by 9%. Similar pattern

\[\text{Ibid}\]

As dividends are declared and usually also paid out during the year following the particular financial year, dividends are divided with the previous year profit. Therefore our graphs depict data from 2000-2010.
was also observable in the next year. However, aggregate data does not tell us, whether such patterns are widespread or only common for large companies that influence the aggregate data the most. Aggregate data are in line with the theoretical propositions made by Hazak (2007). Hazak constructed theoretical model of optimal dividend policy under distributed profit taxation and uncertainty. He argued that if the probability of losses is noticeable, the company value for the investor is maximized if profit is fully distributed when earned. This suggests that during the financial crises, when the probability of losses increases, the dividend payout ratio should rise. At aggregate level there was a sharp increase in payout ratios in 2008 and especially in 2009, when aggregate dividends exceeded aggregate profits.

![Figure 1. Net income and dividends of Estonian corporate sector (without financial institutions) 2000-2010. (Source: Estonian Statistical Office Database, authors’ calculations).](image)

The overall payout ratio in Estonia is somewhat lower than in well-developed European countries. The MSCI Europe aggregate ten-year median payout ratio was 46.4% at the end of 2012 (Factset 2012). However, as shown in Michaely and Roberts (2012) payout ratios in private firms are lower than in similar public firms. In Estonia the number of public firms is very limited. Currently only 16 Estonian companies is listed on Tallinn Stock Exchange. The sectors with the highest payout ratio in Estonia are mining (payout ratio 75% during 2005-2011), water collection, treatment and supply (69%), electricity, gas, steam and air conditioning supply (62%), and information and communication (60%). The lowest payout ratios are in the following sectors: real estate activities (18%), manufacturing (24%), and administrative and support service activities (24%).

Another ratio, which is used to characterize dividend policy, is dividend yield. Dividend yield is calculated by dividing dividend per share with the price of the share. However, in case of non-listed companies, this ratio cannot be used. Therefore we calculate the ratio of dividend and equity capital instead and call it modified dividend yield. Modified dividend yield measures current return for those
According to the data presented on Figure 2, the size of total equity capital has been increasing constantly due to the rising number of companies (there were total ca. 46 thousand companies in 2000 and more than hundred thousand companies in 2011) and strong incentives from the tax system to retain the profits. As we can see, the modified dividend yield for the corporate sector fluctuates between 3.2% and 6.1%. It is interesting to notice that while modified dividend yields for the corporate sector as a whole have decreased during the financial crises and years after that, they are still higher than deposit interest rates for households.

According to the Estonian Commercial Code, dividends can be paid from current or previous years’ profits. However, in order to make actual payments to shareholders, companies have to have also financial resources – i.e. they must have enough cash. Figure 3 compares aggregate dividends with the size of cash, deposits and marketable securities in the balance sheets of Estonian companies.
As we can see, aggregate dividends constitute a relatively stable share (20.7%-33.5%) of the aggregate liquid reserves (i.e. cash, bank deposits and marketable securities) of Estonian companies. One of the consequences of financial crises was that companies started to accumulate higher reserves. In 2008-2010 dividends constitute only 1/5 -1/4 of liquid reserves, which is somewhat lower than during the booming years. Such behaviour contradicts with the theoretical propositions made by Hazak (2007).

To summarize, aggregate corporate sector data suggest that dividends are relatively sticky (they did not fall considerably during the financial crises), they are less volatile than profits and the overall dividend level in Estonia is somewhat lower than in Western Europe countries, where one could expect more mature companies are located.

However, analysing trends in dividends policy based on aggregate corporate sector data could potentially lead to somewhat biased conclusions and therefore for conducting a more in-depth analysis, financial data of firms from Estonian Commercial Register (ECR) has been applied. Our dataset includes all companies that have submitted financial reports to the ECR. The time period under consideration covers the years 2008-2011. The total number of firms in our sample, number of firms that has paid cash dividends\(^3\) and/or repurchased their own shares as well as the total amount of paid cash dividends and payments associated with share repurchases is reported in table 1.

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\(^3\) It is important to point out that ECR data reflects actually paid not declared dividends. Therefore the amount of dividends in table 1 and in previous figures differs slightly.
Table 1. Total number of firms in our sample and the use of different types of payouts in Estonian companies 2008-2011.

<table>
<thead>
<tr>
<th></th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
</tr>
<tr>
<td>Total number of companies</td>
<td>72,794</td>
</tr>
<tr>
<td>Number of companies that made payments to their shareholders (% of total number of companies)</td>
<td>8,754 (12.0%)</td>
</tr>
<tr>
<td>Number of companies that paid cash dividends (% of total number of companies)</td>
<td>8,542 (11.7%)</td>
</tr>
<tr>
<td>Number of companies that repurchased their stocks (% of total number of companies)</td>
<td>283 (0.38%)</td>
</tr>
<tr>
<td>Number of companies that simultaneously paid cash dividends and repurchased their stocks (% of total number of companies)</td>
<td>71 (0.10%)</td>
</tr>
<tr>
<td>Total cash dividends (million Euros)</td>
<td>1,016</td>
</tr>
<tr>
<td>Total share repurchases (million Euros)</td>
<td>72</td>
</tr>
</tbody>
</table>

Source: Estonia Commercial Register 2013. Authors’ calculations.

The firm level data show that only one Estonian company out of ten makes payments to its shareholders in a particular year (see table 1). Share repurchases are considerably less common in Estonia than in U.S. According to Dittmar (2008) the amount of cash distributed to shareholders in form of share repurchases exceeds the amount of cash dividends in United States since 2005. In Estonia cash dividends exceed share repurchases 10-20 times.

By analysing payout ratios, we can see that in most cases (in 62% cases) it lies between 0 and 1 (see figure 4).

![Figure 4. Distribution of payout ratios of Estonian companies 2007-2010. Note: extreme values were removed (Figure 4 depicts 95% of all observations)](Source: Estonia Commercial Register 2013, authors’ calculations)
However, payout ratio can also be negative (i.e. dividends is paid by a company with net loss in current year by using previous years accumulated profits) or exceed 1 (i.e. company pays out all its current year profit as well as some or all of its retained earnings from previous years). During these four years in 13% of cases the payout ratio has been negative and in 25% cases it exceeded 1.0 (see table 2).

Table 2. The distribution of payout ratios in Estonian Companies 2007-2010.

<table>
<thead>
<tr>
<th>Dividend payout ratio</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 0.0</td>
<td>7%</td>
<td>14%</td>
<td>20%</td>
<td>14%</td>
</tr>
<tr>
<td>Between 0.0-1.0</td>
<td>71%</td>
<td>63%</td>
<td>53%</td>
<td>59%</td>
</tr>
<tr>
<td>Over 1.0</td>
<td>21%</td>
<td>23%</td>
<td>27%</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: Estonia Commercial Register 2013, authors’ calculations.

We can also see that the percentage of negative payout ratios has increased during the years of most negative economic conditions (i.e. in 2009).

According to the survey evidence (Sander and Trumm 2006), most Estonian companies do follow residual dividend policy, and the level of previous year dividend were not considered as an important factor determining the payout ratio or the level of dividends. By analysing statistical data, we found strong evidence to support this view. Our dataset included 54958 firms for which we had data for all four years. Out of these companies only 25 (i.e. ca. 0.05%) paid dividends in every year. It can be said that instead of the policy of stable dividends most Estonian companies follow either residual dividend policy, according to which companies pay out earnings left after all capital expenditures are finance with internal equity or they follow the wishes of controlling shareholder. Due to the Estonian income tax system, owners have a strong incentive to retain profits and use their firms as some kind of piggy-banks. Hazak (2009) argued that while the tax costs associated with dividend payment appeared to led firms to retain more profits, it did not necessarily lead to additional strategic investments as some of the money was used to repay debts and to accumulate liquid assets.

Different surveys conducted in Estonia (Sander and Trumm 2006, Kaarna et al. 2010) suggest that most important determinant influencing dividend decision is the cash need of (controlling) shareholders. Similar behaviour can also be observed in other countries. For instance in Canada, firms tailor their dividend policy to meet the preferences of controlling shareholder (Baker et al. 2011). In Estonia, a company can pay out dividends only if the majority of votes at the general shareholder meeting support it. Therefore the payout policy is essentially under the control of controlling shareholder. The ownership structure of Estonian companies is rather concentrated – most companies are family owned and even in case of public limited companies, the number of firms with more than 50 shareholders is only 60 (i.e. less than 1.6% of all public limited companies).
Since most Estonian companies have only one or two shareholders (see figure 5), any model or analysis that relies only on company level data and does not take into account different characteristics of owners cannot provide comprehensive explanation to the observed patterns in dividends.

4. CONCLUSIONS

Estonian income tax system gives companies a strong incentive to retain profits. Therefore it is of no surprise that aggregate payout ratio in Estonia is somewhat lower than in other European countries.

While the analysis of aggregate corporate sector data seemed to confirm the validity of well-known stylized facts about dividends (dividends are sticky, companies try to smooth dividends, they are more stable than profits) in Estonian settings, a more thorough investigation of firms level data showed a different picture. Only about one tenth of firms paid dividends in a particular year. Dividend payout ratios were negative in 13% of cases, indicating that dividends do not always follow profits and exceeded 100% in 25% of cases, illustrating the cases which are clearly not sustainable, i.e. in subsequent years the payout ratios should decrease. Even more surprising was the fact that only a minor fraction (ca. 0.05% of Estonian firms) paid dividends in every year. This suggests that Estonian companies either follow residual dividend policy or are guided by the cash needs of their controlling shareholder.
REFERENCES


THE MAINTENANCE FINANCING OF ESTONIAN NATIONAL ROAD NETWORK – PRESENT AND THE FUTURE

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Abstract

Compared to many other European countries Estonian national road network has more density. The last decade has seen decreasing population, rapid motorisation and poor road financing, especially regarding basic and secondary roads. To maintain the roads’ good condition, new maintenance schemes are needed. This paper will describe present trends and future perspectives.

Key words. road maintenance, financing.

INTRODUCTION

Estonian national road network is one of the densest in the Nordic and Baltic countries. Therefore the amount of funds spent on road maintenance is also substantial and it is costly for a nation as small as Estonia to maintain such a dense national road network. When considering the decreasing population and rapid motorization it is questionable whether it is possible to maintain all the roads with such poor road financing and with current maintenance schemes. It is necessary to review present trends and look for new perspectives for the future.

This article will cover several topics related to the Estonian national road network such as road performance, road maintenance and financing as well as population and housing census. On the basis of these themes we will provide recommendations for improving the current situation of the Estonian national road network and give suggestions regarding its financing and maintenance.

ESTONIAN NATIONAL ROADS

The length of national roads as of January 1, 2012 is 16,443 kilometres, i.e. 28.1% of the total length of the Estonian road network, which is 58,487 kilometres. The length of E-roads in Estonia is 995 km. The total length of national roads decreased by 57 kilometres during the year. The length of main roads and basic roads remained the same, but the length of secondary roads and other national roads increased by 5 kilometres. The main decrease of the road length (by 62 km) was due to the fact that ramps and connecting roads were excluded from the list of national roads. Of the national roads, 1,603 km (9.7%) are main roads, 2,400 km (14.6%) are basic roads and 12,440 km (75.3%) are secondary roads and other national roads. The length of paved roads increased by 223 km compared to the same date of the previous year (January 1). The total length of paved roads is 10,657 km or 64.8% of the total length of national roads. Most of this increase is due to the paving of gravel roads. The density of national roads is 379 km per 1,000 km\(^2\). The density of the entire registered road network per 1,000 km\(^2\) of the territory in Estonia...
is 1,345 km. There are 945 bridges on national roads with the total length of 22,476 m, including three wooden bridges with the total length of 37 m.

Types of pavement on national roads are shown in Table 1.

<table>
<thead>
<tr>
<th>Types of pavement on national roads</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt concrete</td>
<td>4,152 km</td>
</tr>
<tr>
<td>Bitumen-gravel</td>
<td>3,769 km</td>
</tr>
<tr>
<td>Ash concrete</td>
<td>949 km</td>
</tr>
<tr>
<td>Surface-dressed gravel roads</td>
<td>1,787 km</td>
</tr>
<tr>
<td>Cobblestone surface</td>
<td>1 km</td>
</tr>
<tr>
<td>Gravel roads</td>
<td>5,785 km</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>16,443 km</strong></td>
</tr>
</tbody>
</table>

Source: Annual Report 2011, p. 8

Density of national roads is the highest in the south-east corner of Estonia in Valga County (546 km per 1,000 km²), Võru County (544 km per 1,000 km²) and Põlva County (538 km per 1,000 km²) (Annual Report 2011: 8-9).

MOTORISATION IN ESTONIA

When Estonian transport indicators were compared with the EU’s sustainable transport indicators, it was revealed that car use has increased in line with economic growth. Road freight has even increased more than GDP, while rail freight has decreased considerably. Transport energy demands and GHG emissions from transport have increased at a similar pace. The Estonian economy is transport-intensive, and if current trends continue Estonia will become one of the most transport energy-intensive Member States of the EU (The Commission for Sustainable Development. Transport Report. Executive Summary 2010 Rapporteur: Estonian Council of Environmental NGOs: 1).

Continuing motorisation increases deterioration of roads and therefore also raises the need for more maintenance. Maintenance demands more finances but Estonian population is decreasing.

ESTONIAN POPULATION

According to the final results of the 2011 Population and Housing Census (PHC 2011), 1,294,455 permanent residents were enumerated in Estonia. The census results indicate the continued concentration of the population around major cities.

Compared to the previous census of 2000, the population of Estonia has decreased by 75,597 persons, i.e. by 5.5%. The population has grown only in Harju and Tartu counties (PHC 2011). See Table 2 and Chart 1.
When compared with other European countries Estonia has room to continue its rapid motorisation.

Source: [http://www.stat.ee/34301](http://www.stat.ee/34301)
Table 2 & Chart 3. Population differences in Estonian counties, 2000-2011

<table>
<thead>
<tr>
<th>County</th>
<th>2000 Population</th>
<th>2011 Population</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>HARJU</td>
<td>525,682</td>
<td>552,927</td>
<td>27,245</td>
</tr>
<tr>
<td>HIU</td>
<td>10,440</td>
<td>8,482</td>
<td>-1,958</td>
</tr>
<tr>
<td>IDA-VIRU</td>
<td>179,702</td>
<td>149,172</td>
<td>-30,530</td>
</tr>
<tr>
<td>JÕGEVA</td>
<td>38,297</td>
<td>31,376</td>
<td>-6,921</td>
</tr>
<tr>
<td>JÄRVA</td>
<td>38,781</td>
<td>30,537</td>
<td>-8,244</td>
</tr>
<tr>
<td>LÄÄNE</td>
<td>28,644</td>
<td>24,140</td>
<td>-4,504</td>
</tr>
<tr>
<td>LAÄNE-VIRU</td>
<td>67,801</td>
<td>59,842</td>
<td>-7,959</td>
</tr>
<tr>
<td>PÕLVA</td>
<td>32,695</td>
<td>27,448</td>
<td>-5,247</td>
</tr>
<tr>
<td>PÄRNU</td>
<td>91,212</td>
<td>82,598</td>
<td>-8,614</td>
</tr>
<tr>
<td>RAPLA</td>
<td>37,593</td>
<td>34,914</td>
<td>-2,679</td>
</tr>
<tr>
<td>SAARE</td>
<td>35,951</td>
<td>31,317</td>
<td>-4,634</td>
</tr>
<tr>
<td>TARTU</td>
<td>149,602</td>
<td>150,528</td>
<td>926</td>
</tr>
<tr>
<td>VALGA</td>
<td>35,796</td>
<td>30,123</td>
<td>-5,673</td>
</tr>
<tr>
<td>VILJANDI</td>
<td>57,974</td>
<td>47,599</td>
<td>-10,375</td>
</tr>
<tr>
<td>VÕRU</td>
<td>39,882</td>
<td>33,452</td>
<td>-6,430</td>
</tr>
</tbody>
</table>

Density of national roads is the highest in the south-east corner of Estonia in Valga County, Võru County and Põlva County. At the same time population in these counties is low and continues to decrease. One of the main reasons for decreasing population in these counties is a high unemployment rate.

Registered unemployment rate was significantly higher than the average registered unemployment rate in Estonia at the end of 2011 in the following counties: Valga County (11.6%), Võru County (9.0%), Hiiumaa County (8.8%) and Põlva County (8.7%).

ROAD PERFORMANCE

Changes in the economy of Estonia are directly reflected in the results of the traffic count. While in the years 1998–2007 the traffic volume steadily increased by about 6–10% per year on main and basic roads, then in the years 2008–2010 the traffic volume decreased and in 2011 showed a slightly rising tendency again (Annual Report 2011: 42).

Before 1998, the traffic volume was the highest on secondary roads and as of 1998 on main roads. This was due to the increase in the number, and total length, of basic roads. Similar increase has happened three times: in 1997/98, 2001/02 and 2003/04. In 1995 – 2011 the length of main roads in the road network increased by 35% whereas the length of basic roads decreased by 10.3 % and the length of secondary roads increased by 11.8%. It is worth mentioning that traffic volume is less than average or low on the secondary roads included in the network.

Irrespective of the type of the road, traffic volume continued to increase in all networks until 2007 although the pace of increase varied. In 2011 the percentage of traffic volume on main roads was 45.2% (only 29% in 1995) although said roads formed only 3% of the entire road network (2.7% in 2005).

The percentage of traffic volume on national roads has increased from 84.5% in 1995 to 89.4% in 2011. In 2011 the traffic volume on main and basic roads and ramps was 66.8% of the total volume on all roads (65.6% in the previous year) whereas said roads form only 7.6 % of the entire road network. The percentage of traffic volume on secondary roads has not been constant; in spite of the differences in the extent and quality of the count, it has remained relatively stable in the last five years – in 2011 it formed 22.7% of the total traffic volume on roads. The percentage of traffic volume on secondary roads is similar to the amount of secondary roads of the entire road network (23.2%). The majority of the road network is formed by other roads – local roads (or rural roads as they were previously called), forest roads and private roads as well as roads without an owner. The percentage of said roads of the entire road network is 69.1% whereas the traffic volume on these roads is only 10.6% of the traffic volume of the entire road network. Although this figure is only an estimate, its impact on the total volume is insignificant even in the case of a relatively large deviation (Tiit Metsvahi 2012: 59).

The road section with the greatest traffic volume continued to be at the city boundary of Tallinn on the Tallinn–Pärnu–Ikla road. On this section km 13.0–13.7, the average traffic volume of the year was 29 034 vehicles per day (see Fig. 1) (Annual Report 2011: 42).

Considering the location of roads and their intensity of use, roads should be examined and their level of and need for maintenance reviewed. As funds are limited, road maintenance must be carried out in the most rational way possible.
MAINTENANCE FINANCING AND OVERVIEW

As of 2003, the state budget of Estonia is drawn up on the basis of the principle that all sources of funds – funds from state budget, own revenue (i.e. revenue from economic activities) and foreign aid – are included in the estimated rate of fuel excise duty. Thus, the bigger the proportion of foreign aid and own revenue, the smaller the proportion of funds allocated from fuel excise duty for the road maintenance. European Union grants are used for building big and expensive objects on main roads but smaller roads are at a disadvantage here due to such wording of the Roads Act. European Union aid does not help to achieve the set objective – to reduce the development gap. Construction of big and expensive objects requires thorough maintenance but the amount of funds allocated for this purpose has not increased.

Ordinary maintenance gets financed from operating expenses. There is no volume calculation for the work performed, payments get made for securing the required condition of the road.

The goal of ordinary maintenance is to secure the required status of the roads by performing necessary operations that are part of ordinary road maintenance.
In 2011, 38.6 million euros was used for road maintenance. 13 million euros of that was spent on winter service and 25.6 million euros on summer service (Annual Report 2011: 22).

Maintenance costs per 1 kilometre of national roads were 2350 euros (in 2010 – 2300 euros, and in 2009 – 2380 euros) (see Table 3). In the past few years, the financing of state road maintenance has been quite stable (see Table 4).

**Table 3. Utilization of the funds allocated for the management of national roads (thousand euros)**

<table>
<thead>
<tr>
<th>Road operation</th>
<th>38,642.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Including:</td>
<td></td>
</tr>
<tr>
<td>summer service of paved roads</td>
<td>17,468.1</td>
</tr>
<tr>
<td>summer service of gravel roads</td>
<td>7,605.8</td>
</tr>
<tr>
<td>upkeep of road structures</td>
<td>603.6</td>
</tr>
<tr>
<td>winter service</td>
<td>12,965.3</td>
</tr>
</tbody>
</table>

Source: Annual Report 2011, p. 20

**Table 4. Expenditure on road service operations in 2007-2011 (million euros)**

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>In total</td>
<td>32.358</td>
<td>37.721</td>
<td>39.159</td>
<td>37.829</td>
<td>38.643</td>
</tr>
<tr>
<td>Including</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>68.4</td>
<td>69.1</td>
<td>67.6</td>
<td>66.7</td>
<td>66.4</td>
</tr>
<tr>
<td>Winter service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>31.6</td>
<td>30.9</td>
<td>32.4</td>
<td>33.3</td>
<td>33.6</td>
</tr>
</tbody>
</table>

Source: Annual Report 2011, p. 27

While the maintenance system of major roads functions well, the situation of non-priority and local roads is somewhat worse. Traffic conditions are bound to be worse on these roads – their level of state does not require as thorough maintenance as that of larger roads. The state of non-priority roads further deteriorates in grave weather conditions. In such conditions it is evident that there is clearly lack of
necessary equipment. In extreme conditions it is important to ensure the maintenance of roads with high traffic and thus available machinery is first directed there. Lack of equipment is not so much a problem as an inevitability as other countries also lack funds to ensure sufficient maintenance of the entire road network in grave weather conditions.

Maintenance must be planned simultaneously with the planning of road construction for two reasons. Firstly, the design must be done with due consideration to future maintenance, e.g. drainage to minimize erosion, slope protection, compaction to avoid rough pavements and potholes, good gravel wearing courses to prevent corrugation and rutting. Secondly, the organization on all levels must be prepared for all tasks that will appear after shorter or longer periods of time. These periods depend on factors that are more or less unpredictable, like the weather (The Road Network Study of Estonia 1997: 20).

This must be done according to the satisfaction of the needs of road users. Every year the Estonian Road Association as the organizer of road maintenance has ordered the conduction of surveys in order to receive feedback from drivers. Holders of driving licences are asked to evaluate the driving conditions on state roads. For example, such a survey was carried out in the summer of 2012. Satisfaction with summer driving conditions on state roads was average. Large roads (main and basic roads) have better driveability and secondary roads have worse driveability, and their condition is being valued critically. On the whole, drivers are satisfied with the organization of summer maintenance (66%) and this indicator has remained stable over the years. Still, traffic management should be planned more wisely during summer road repairs (Sõiduki- ja veoautojuhtide rahulolu 2012: 20-21).

A survey on the satisfaction of drivers regarding the 2011-2012 winter driving conditions was conducted on 5-15 March 2012 over the phone by the research team of the Estonian Research Centre. Drivers’ overall opinion on the driving conditions on state roads during the last winter was good. 72 % of drivers said the driving conditions were good or very good (69 %; in 2010, 66 % in 2009 and 65 % in 2008). According to 65 % of drivers, the efficacy of winter road maintenance (i.e. fast snow removal and de-icing) was good or very good (66 % in 2010; 52 % in 2009, 63 % in 2008 and 51 % in 2006). The assessment probably depends on the nature of given winter and the frequency of precipitation. Of interest are the recipients’ suggestions on how to improve road maintenance in winter. They are mostly of the opinion that quick snow removal is essential, and that it should begin as soon as it starts snowing. They claim that on roads where snow removal is carried out later, layers of snow get stuck to the road. Roads get bumpy and traffic hazards increase. Increase in the use of road maintenance equipment and timely servicing of secondary roads is also of importance (Jüri Valtna 2012).

Road users have high expectations when it comes to driving in winter and this means that while the amount of funds remains the same, more must be done to ensure satisfactory maintenance of roads.

It can be concluded that the variables process satisfaction, outcome satisfaction, and information satisfaction all influence the overall satisfaction. The satisfaction with the outcome plays the most important role in forming the overall satisfaction of stakeholders. Looking at the model of outcome satisfaction, it can be concluded that both stakeholders’ expectation and experience of the maintenance outcome have influence on the outcome satisfaction. In which the experience had, however, a stronger influence on the outcome satisfaction. The more stakeholders perceive the road to be improved and the more this experience deviates from their initial expectation, the more they are satisfied. This is exactly in line with the expectation disconfirmation theory. Only in the predicting the outcome satisfaction is evidence for the disconfirmation model is obtained. An advice for road agencies on the basis of this result, is to make sure that stakeholders do not have too high expectations about the result of the project. Also, it is important that projects will improve the situation for directly affected stakeholders. If a maintenance project only repairs the joints for example, it is advised to broaden the scope and improve
the situation before maintenance. Because the experience then will be higher than the expectations, it will directly rise the satisfaction with the outcome. These insights may help policy makers and stakeholder managers in public projects (M. Hietbrink et al.: 2012: 274).

PRESENT TRENDS AND FUTURE PERSPECTIVES OF MAINTENANCE SCHEMES

Maintenance and rehabilitation of roads has become the most important part of road keeping in developed countries. The road operator or manager must manage and maintain the road network, within a given budget, in order to meet stakeholders’ (road users, road managers and politicians) requirements. This is called external efficiency. There is, however, increasing need for objective and reliable analysis methods and tools, which help in justification of maintenance funding. Traditionally, several types of road user effect models have been used in this justification. There is an identified need for improvement of existing road user effect models in many countries. For example Finland, Sweden, Norway and Estonia have brought up to their concern of current models not functioning adequately. (VTI rapport 731A, 2011 Road user effect models – the influence of rut depth on traffic safety: 13)

Based on the traffic volume on roads, a regulation of the Minister of Economic Affairs and Communication governs the requirements concerning the state of roads applied in Estonia. Requirements concerning the state of roads form a section of the Roads Act. Said requirements shall establish the state of road that shall enable safe traffic while adhering to the traffic rules established with the Traffic Act as well as to the requirements set for the use and protection of roads and road protection zones. Requirements concerning the state of roads must be met by all owners of public roads. In the section of road where the required state has not been ensured and where it is thus difficult to ensure safe traffic, traffic restrictions shall be marked with respective traffic control devices. If established restrictions fail ensure safe traffic, the owner of the road shall close the road (Roads Act: §10)

State of roads is established on the basis of the type of road or street (main, basic, secondary, local road or main, distributor and side-street) and traffic volume. In Estonia four levels are used to describe the state of roads.

Level four is the highest and used only in cities in places with high traffic volume and dangerous slopes. Requirements are established for each respective level of state. Requirements are divided into summer and winter requirements whereas summer requirements apply all year round. Requirements for the state of roads also differentiate between requirements for paved roads and for gravel roads. There are separate requirements for bridges; these establish the requirements specific parts of bridges must adhere to.

New requirements for the state of roads entered into force in Estonia in November 2012. Requirements are currently being reviewed and amended. However, road maintenance providers of Estonia also have development potential. They have studied the dangerous impact of chlorides on the environment, vehicles and maintenance equipment. Thus a mixture of salt and sugar is being used for de-icing; this increases the effectiveness of de-icing and enables to reduce the amount of salt used.

In the future road maintenance plans should include options for alternative solutions in order to ensure safer and environment-friendly winter maintenance. The amount of salt used should be reduced and substitutes should be found. Attention should also be paid to removing the amount of water generated by melting snow. This is especially important in winters with a lot of snow. Road maintenance providers should try to find solutions for impeding the water from invading the roads. Likewise, restricting the use of studded tyres should be considered. Analysis of available road maintenance machinery and equipment should be carried out in order to establish their effectiveness and eco-friendliness.
The importance of weather forecast has become one of the most significant factors in cleaning the roads from ice. This is a field that can help to save immensely on materials, increase work efficiency and decrease damages to the environment. Therefore it is necessary to implement intelligent transport systems for supporting road maintenance.

All the future perspectives for road maintenance should be tested and their cost-effectiveness should also be taken into account. If there are many roads that are not used often and where the traffic volume is low, the road network should be examined carefully and lowering maintenance levels on certain roads should be considered.

All new requirements and technologies implemented for road maintenance must ensure that solutions are found for the problems mentioned above and that the maintenance of Estonian roads shall provide a long and quality lifetime for roads.

**CONCLUSIONs**

Estonian national road network is very dense; continuing motorisation contributes to the deterioration of roads and therefore raises the need for thorough maintenance. Maintenance requires more funds but it is unclear whether roads can be maintained with such road financing and with current maintenance schemes. Present trends should be reviewed in order to find new opportunities for the future.

This article has covered several topics related to the Estonian national road network such as road performance, road maintenance and financing as well as population and housing census. On the basis of these themes we have provided recommendations for improving the current situation of the Estonian national road network and have given suggestions regarding its financing and maintenance.

Density of national roads is the highest in the south-east corner of Estonia in Valga County (546 km per 1,000 km2), Võru County (544 km per 1,000 km2) and Põlva County (538 km per 1,000 km2). At the same time population in these counties is low and continues to decrease. One of the main reasons for decreasing population in these counties is a high unemployment rate. Registered unemployment rate was significantly higher than the average registered unemployment rate in Estonia at the end of 2011 in the following counties: Valga County (11.6%), Võru County (9.0%), Hiiu County (8.8%) and Põlva County (8.7%). If there are many roads that are not used often and where the traffic volume is low, the road network should be examined carefully and lowering maintenance levels on certain roads should be considered.

All new requirements and technologies implemented for road maintenance must ensure that solutions are found for the problems mentioned above and that the maintenance of Estonian roads shall provide a long and quality lifetime for roads.

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INFLUENCE OF NEW TECHNOLOGIES IN HEALTHCARE IN ECONOMICAL ASPECT

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Abstract

The dominance of the most striking diagnostic and therapeutic technologies is the most remarkable innovation in healthcare. The branch is a generator of the economical growth of one of the most technologically developed and paying industries, like the pharmaceutical production and the industry of other medical technologies. As a result of these technologies, high appreciation of medicine and healthcare is observed.

Key words: medical technologies, healthcare, paying industry

Since the mid-XX c., the medicine has been entering another stage of its development. The scientific technical revolution and the progress in biological and medical knowledge open new horizons for development of the healthcare. The most remarkable innovation in the medicine is the domination of the complex precise technologies – diagnostic and therapeutic. The doctors training is oriented to the utilization of new technologies. The technical and pharmaceutical industries are devoted to their creating and reproduction. The attention of the healthcare systems is absorbed with their implementation and payment. As a result of the technologies, the medical success is in many cases almost miraculous. It is a source of professional pride and public admiration. The population prefers the high-tech medicine. It is considered as effective and generating good life. Many of the aspirations, wishes of people, turn into needs.

At the same time, this technology contributed to the raising of the cost of medicine and health care. The trend, as WHO noted, is more expensive treatment of diseases that affect insignificant number of people. Also, many of the accomplishments in the health status made by the technological novelities are insignificant and the benefit – relatively expensive (for instance, the chemotherapy in malignant disease, the operative intervention for heart diseases, the application of erythropoietin for treatment of the anemia, comparable to the one at the final stages of the renal diseases). Many diagnostic technologies exceed the treatment capabilities. (8)

This situation brings forward as particularly important the need for effective usage of the technological medicine. As appropriate health technologies, these methods, procedures, techniques and equipment in the health care are considered which are scientifically valid and adapted to the local needs, and are adopted by the medical specialists who use them. (3)

GENERAL CHARACTERISTIC OF THE HEALTHCARE TECHNOLOGIES

During the last decades, the technologies developed so fast that any trial to foresee their future in farther perspective would fail. The technologies became an important and inseparable part of our life and have
significant importance and wide application in the health care. The hospital is the "place" where the numerous mutually related health technologies apply. (6)

According to Feineberg and Hayat /1979/, the technology includes the wide part of equipment, devices, medications and methods applied in the care of patients. (6,10)

GENERAL CHARACTERISTICS:

· Agency between the science and practice
· Large intellectual contents therefore requiring special training of those operating new technologies;
· Not eliminating the role of the medical specialist, increasing the reliability and quality of operation;
· Products of long-term specialization in the medical industry – requiring special materials, sophisticated labor, high technology level.

At the end of 20 century, the biggest development was achieved by the medical technologies related to:

✓ Reduction of the mortality – these are blood transfusion technologies, reanimation technologies, transplantations of organs and tissues, antibiotics, accelerated diagnostics, etc.;
✓ Improvement of the diagnostic accuracy and awareness – invasive diagnostics, computer tomography and nuclear magnetic resonance, biochemical and serologic tests;
✓ Lowest traumaticism of the patient – ultrasonic diagnostics, endoscopic technique, microsurgery;
✓ Individual prophylactics and home treatment.

For the high-tech methods of diagnostics and treatment currently here, in the draft of the Law for amendment and supplement of the Health Law, the following definition is provided: "High-tech methods of diagnostics and treatment" are methods of the cardio surgery, radiation treatment, transplantation, endovascular interventions, incl. invasive cardiology, robotized surgery, assisted reproduction as well as the vision diagnostic methods." (12)

EVALUATION OF THE HEALTH TECHNOLOGIES:

The economic evaluation concentrates on the impact of a given technology on the welfare of the society as a whole.

In the health management and economics of healthcare, two types of evaluations are used.

1. Technical or medical evaluation – evaluation of the impact of a given alternative for effect on the health state of the population. The quantity of the health results is given in natural measures – number of disease cases found, number of years saved, number of cases with complications, number of years saved in coordination to the quality of life, etc.;

2. Economic evaluation or the approach "expense-benefit" – it is not an alternative to the technical evaluation, it supplements and follows it. It is related to the measuring of the efficiency in economic
sense, but also reporting the criteria for justice; it is given in value measures based on the neoclassical concepts of the price of the lost opportunities. (4,5,6)

The effective medical aid enables us to live longer, however with our long life, the frequency of the chronic and degenerative diseases increases, as well as the relative part of our lives spent sickness. Hence the social medical problems we meet today in many aspects are quite various. Because the pain and suffering, the human vulnerability caused by the chronic disease need the understanding of the other people above all.

The revolution in the biomedicine and the technological innovations engendered by it are unsurpassable in the human history in terms of their positive effect on the health of people all over the world. Observants predict that the twenty first century will be the witness of a dramatic increase of the forthcoming life – measured in decades. The low level of child mortality already achieved in the developed countries as well as currently such trend is observed in the developing countries as well, inspire confidence in these expectations. It must be highlighted however that the successes of the contemporary medicine is a two-bladed knife – often the longer life is achieved with the price of big suffering, diseases and much of financial resources. The involving in the practical diagnostics and therapeutic work of a large number of various and sophisticated technique is one of the reasons for dehumanization in the medical profession. (2,8)

In political and economic aspect, every nation comes across the increasing problem for financing the healthcare. The developed countries report that recently even they hardly provide the resources for the medical needs and opportunities they come across. All over the world, an increasing need for control of the resources and the achievement of bigger effectiveness is observed. The idea for the continuous progress in the rich countries worldwide came across both with scientific and economic hindrances. Facing the eldering population, the fast technological change and continuously increasing public requirements in many countries, an increasing concern for the future of the medicine and healthcare is observed. (8)

When we consider the matters raising some of the widely adopted objectives of the medicine, we hold our attention on the traditional objective, for instance the saving and continuation of the human life. We can ask ourselves: What does an objective like this mean when with the modern equipment, the medicine can maintain the life of the organism also in the cases of fatal outcome in distanced time. How far would medicine get in the ambition to continue the uncertain human existence?

Currently, on economic level, the medicine became a source of money, benefits and jobs. Now it is economic force as its recognized right in almost every country.

The role of the studies and technological innovations as a main driving force for the fast increase of the expenses for health has been discussed. It is considered that the technological progress is turned into economic burden. There is a serious contradiction among the economists in terms of technologies. The careful analysis demonstrates that they comprehend them as a leading economic problem for the health systems in the countries of high standard of life however at the same time they are concerned with any change that would render hazard to the technological innovations. (11)

The increase of the chronic diseases is the indirect tax paid by the medicine for its ability to maintain the life of those who would have deceased in the previous centuries. And, due to its inability to find a cure yet for most of the chronic diseases, the medicine is forced to use expensive compromise technologies. The artificial respiratory equipment and the insulin are classical examples and the newer of them include: AZT and other drugs for AIDS, many forms of cardio surgery, the hemodialysis.
The premature embedding of technologies increases the expenses and hardens the restriction or elimination of those of them that have not proven their efficiency or are not worth their costs.

With the available resources, the health care systems ensure advanced technologies, such as units for neonatal cares and intensive departments for adults, cardio surgery, organ transplantation, advanced form of rehabilitation and hemodialysis. The health care must be organized in such a way that maximal improvement of the public health is started with. Then, when the resources allow it – to provide those more expensive and sophisticated forms of the medicine that better meet the needs of the individual. (8)

The scientific and technological novelties as well as the life medicalization is appointed by D. Kalahan as one of the significant stresses for the modern medicine.

**Scientific and technological novelties.** The domination of the sophisticated precise technologies – diagnostic and therapeutic, are the most remarkable innovation in medicine. The medical success as a result of the technologies in many cases is almost miraculous. The capability of the high-tech medicine to find resources against the destiny strikes for many people is a source of hope and consolidation. Such medicine is highly worshiped in the developed countries and sought for in the developing countries.

Many diagnostic technologies surpass the treatment capabilities. Furthermore, due to the success achieved in the improvement of the health status as a whole, the further progress in this respect becomes relatively more expensive.

The expectations for progress in the technological innovations however can foster too much and unrealistically the public expectations. The "high-tech" medicine is usually considered as providing the newest and the best in the available diagnostic and treatment with the assumption that there will be better models in the future. Ironically, whereas the wish for success leads to more knowledge and innovation, at the same time it increases the general dislike of the state of things. Even the existing starts looking inadequate in the light of the future opportunities.

**Medicalization of life.** The social expectations and technological opportunities direct the process of medicalization that is considered as applying the medical knowledge and technologies on problems which are historically not considered as medical by their nature. The medicalization may take a certain direction, i.e. the one of the public expectation that via the treatment of the medical symptoms, the medicine can uproot bigger social problems. For the practical objectives of the budgets and public expectations, the individual and social problems that can be classified as "medical", are capable to manage more money and resources. (8)

As V. Borissov noted, "Medicalization means total invasion of medicine in the contemporary life". In particular, our daily life is unthinkable without taking a variety of medications. Some authors reasonably call the modern human "the medication human". (1)

**CHARACTERISTICS OF THE MARKET OF MEDICINAL TECHNOLOGIES IN BULGARIA:**

In Bulgaria, since 1988-89 (with Decree for economic activity), the conditions for financing the free market of material production factors for the health care are liberalized. The stimulating factor for this market occur to be the creation of the private sector of health service providing and the health insurance market after 1991. Here, the trade representations of more than 50 transnational companies – manufacturers of medical technologies - were opened and extended. The home medical industry developed more intensively in the recent years by market rules. One of the stimulating factors is the
strong competition and aggressive marketing, and the sale promotion, exercised by the representations and distributors of the transnational conglomerates.

As a modern stage in its development, the policy of the National Health Insurance Case is considered for stimulation of technological renovation of the hospitals that have entered into contracts with its territorial divisions – the regional health insurance cases. The main levers in the encourage policy of the NHIC in the field of the medical technologies are:

- Technological requirements to all medical specialties for entering into a contract with the NHIC for a minimal or extended package of medical services.
- Stimulating higher prices for unit of activity carried out by specialists that entered into contract for extended package of medical services.
- Covering through the prices of the medical services of the amortization discharges by market value of the medical equipment, furnishing and long-term instrumentation of the hospitals that entered into contract with the case. (6,7)

The draft of the Strategic frame of the healthcare policy for the nation health improvement in the period 2014 – 2020 included the following:

The strategy for regulation of the usage of expensive diagnostic and treatment technologies includes measures for determination of limits for the needs and control over them as well as concentration of the material basis in view of the maximal efficiency. Key measure both for the expense reduction and the patient safety and the problems of ethical nature is the carrying out of a careful assessment prior to the admission of the embedding of new technologies in the clinical practice.

The new technologies in the field of the vision, functional and medical-laboratory diagnostics, in the therapeutic and surgical treatment tools, in transplantology, etc. render significant impact on the structure and activity of the practices related to the clinical and preventative medicine.

To support the primary medical aids, it is necessary to embed in a fast pace new low-cost technologies: equipment and biomedical equipment for diagnostics, medication and instrumental sets for medical aids, etc.

The approaches for reduction of the hospitalizations gradually turns into a key element of the strategy for change of the hospital functions. For this purpose, it is appropriate to intervene into: incorrect implementation and development in the system of the out-of-hospital aids of new technologies, incl. endoscopic and other invasive diagnostic and treatment procedures, surgical interventions, medication treatment, etc. that will enable the quality diagnostics and safe and efficient treatment of larger number of diseases in out-of-hospital conditions.

In the realization of the change in the configuration of the system for hospital aids, particular attention is expected to be given to the following accents: rational planning of the high-tech hospital services as per the needs of the population and the capabilities of the treatment network for their effective submission.

At the moment, the distribution of the high-tech hospital services such as the cordial surgery, neurosurgery, oncology, transplantation of organs and tissues, invasive cardiology, etc., is a reason for concern. It is reported that some of them are too multiplied which is a reason for ineffective usage of the human and financial resources and ultimately for potentially weaker clinical effect.
Despite of the trials for implementation of regulation, an effective mechanism is lacking for solving of the problems engendered by the doubling or excessive offering of certain high-tech hospital services due to the following factors:

a) high share of the incomes of the hospitals from the high-tech hospital services which stimulated the hospital managers for opening such at the expense of other which are really needed but not cost-effective;

b) the high recognition and public support they enjoy and which places political barriers to the change.

In Bulgarian, access has already been provided to treatment of the cardiovascular diseases in more than 30 specialized departments and multi-profile hospitals for invasive and traditional surgical treatment of cardiovascular diseases. Besides, there are continuous programs and investigations to prevent these diseases. Currently, there is an allocation of the efforts to the development of the early diagnostics and high technological treatment of the oncological diseases is stated in the Concept of hospital restructuring of the Ministry of Health.

CONCLUSION

The revolution in the biomedicine and the technological innovations engendered by it are unsurpassable in the human history in terms of their positive effect on the health of people worldwide. However it needs to be considered that the successes of the modern medicine are double blade knife – often, the longer life is achieved at the expense of big suffering, diseases and much of financial resources. One of the reasons for dehumanization in the medical profession is the embedding in the practical diagnostic and therapeutic activity of big quantity of various and sophisticated equipment. Therefore the searching for balance between the advantages and disadvantages of the new medical technologies is particularly important priority for the politics both in the industrial and the developing countries.

The health system must be organized in such a way that it starts with maximal improvement of the public health. In the cases when the resources allow it – to provide those expensive and sophisticated forms of the medicine that better meet the needs of the individual.

A need exists for the implementation of effective mechanisms for regulation of high-tech hospital services. They must be regulated in view of the capabilities for insurance of the necessary quality of the activity on one side and on the other – in view of the restriction of extra investment basis for assessment and introduction of criteria for the real needs and the opportunity for access of the population to them.

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ACCESS TO GENERAL PRACTITIONERS AS SEEN FROM THE PATIENTS

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Abstract

Providing accessible and quality health care is a priority of any health system. The GP is the major figure in the primary health care and the first contact of the patient to the health system in Bulgaria.

This study reveals and analyzes the opinion of patients about access to their general practitioners. Respondents were 671 anonymous patients from across the country in February and March 2012. The aim is to clarify issues related to the waiting time at the cabinet for review and estimate the user fees as a barrier to visiting the GP. Appreciated is physical access to the doctor's office and ways of providing 24-hour service to patients. The results highlight some of the major problems in accessing to GPs by the patients opinion..

Key words: access, GP, patient

One of the main principles and priorities laid down in the National Health Strategy of Bulgaria is to provide affordable and quality health care.

According to legal documents in Bulgaria, the "free" insured persons can visit only a their GP, which is at the entrance to the healthcare system. With the regulations and strategies the right to health care and equal access for all citizens, regardless of gender, age, ethnic, social, and political affiliation are ensured.

The first contact of the patients with the health system is their GP. He is the main figure in primary care, which provides continuous, high-quality and relevant cares to the health needs of people, which decide 80-90% of their health problems and coordinate access to other levels of the health system.

The main criterion for quality in medical practice is the accessibility to the medical activity - creating the conditions for ensured access to the practice - territorial, economic, administrative and other restrictions in other words, guaranteed the right to choice.

The survey of public opinion on issues related to access to their personal physicians is essential to take action to overcome the real reasons outlining limitations in access to primary health care system.
The purpose of this paper is to reveal and analyze the opinion of patients about issues related to access to the personal physicians.

To achieve that goal we set out the following tasks:
1. Studies the patient’s waiting time at the GPs office;
2. Determine how to provide the 24-hours service from the GP;
3. Estimating of the physical access to the GP’s office from the patients;
4. Survey of patients opinion on the amount of user fees as a barrier for visits to the GP’s office.

We conducted an anonymous survey involving 671 patients from across the country in February and March 2012. Of all surveyed 31.3% were men and 68.7% women. Their social status is presented in Figure 1. Most of the patients are employed - 70.3%, followed by retirees - 12.9% and 7.7% were students. There is a small share of the unemployed patients / 8.9% /, although the patients in this group are insured less and therefore they visit GPs most rarely.

Figure 1. Social status of surveyed patients
With regard to the residence surveyed patients were divided into three groups - 42.5% were from the capital, 50.3% from the urban and 7.2% from the villages.

The largest share, 39.3% are the patients waiting to the cabinet over 20 minutes, followed by 18.6% - waiting 15-20 minutes, and third 14.2%, - are not able to answer this question. Almost equal are the percents of the patients waiting from 10 to 15 minutes 13.9%, and up to 10 minutes - 14%. /Figure 2./

It was found that only 206 people had the prerecorded appointment with your doctor and the remaining 465 patients without an appointment. This leads to loss of time waiting outside the cabinet, nervous patients, scandals and conflicts between them and the GP’s. The problem exists mainly in practices with larger numbers of patients and could be overcome by introducing the practice of prerecorded appointments for patients with chronic diseases related to monthly attending of GP. Preventative dispensary examinations and immunizations can also be scheduled by each of the individual GP workload. In our opinion implementation of prearranged appointments will facilitate, both patients and GPs and will lead to better use of resources' time.

We asked patients and for the ways in which they choose their GP provides 24-hour service. The results are presented in Table 1.
Table 1. Ways of providing 24-hour service from GPs according the patients answers

<table>
<thead>
<tr>
<th>answers</th>
<th>number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>always responds when call him</td>
<td>257</td>
<td>38.3</td>
</tr>
<tr>
<td>refer to the center for emergency medical care</td>
<td>133</td>
<td>19.8</td>
</tr>
<tr>
<td>refer to the medical center, which has a contract for night, weekends and holidays</td>
<td>268</td>
<td>40</td>
</tr>
<tr>
<td>other</td>
<td>13</td>
<td>1.9</td>
</tr>
<tr>
<td>TOTAL:</td>
<td>671</td>
<td>100</td>
</tr>
</tbody>
</table>

Figure 3. Opinion to patients / in% / for the size of customer fees as a an obstacle to GP visit

For 40% of respondents GP refers them to the medical center, with which has contracted for the night, weekends and holidays, for 38.8% of respondents the GP always responds when they call him. No small proportion / 19.8% /, of the patients are referred to hospital emergency medical care by GPs.
Particularly attention deserves the problem of access to GPs pertaining to financial constraints related to consumer participation in financing / consumer fee /. For many patients that tax appears as a barrier to access to GPs. In this regard, we asked patients: "Do you think that the amount of consumer fee / 2.90 lev / is an obstacle to visit your doctor?". The answers are presented in Figure 3. For the majority of respondents 56.8% patients the fee is reasonable and not an obstacle to visit the GP, while for 24.8% the fee is large and prevent the visit. Patients do not have the required amount and can not visit the doctor, and if you still find means to visit their GP if necessary, research and consultation with a specialist, they must pay a user fee for the assistance rendered by the specialist and fee research which for some patients is impossible.

Physical access to the practice of primary care is possible when conditions are provided for physical access to buildings and services as they meet the following requirements:

1. In practice, there are conditions for access for people with physical disabilities and mothers with prams.
2. Near the entrance to the practice is able to stop the car.

To clarify the opinion of patients about physical access to GPs we asked the next question of the survey: "How do you assess physical access to the office of your doctor?". The answers are presented in Table 2.

<table>
<thead>
<tr>
<th>answers</th>
<th>number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>there are conditions for access of people with physical disabilities and mothers with child strollers</td>
<td>328</td>
<td>48.9</td>
</tr>
<tr>
<td>no conditions for access of people with physical disabilities and mothers with child strollers</td>
<td>252</td>
<td>37.6</td>
</tr>
<tr>
<td>near the office of the GP there is the opportunity for suspension of cars</td>
<td>416</td>
<td>62</td>
</tr>
<tr>
<td>near the GP's office there is no possibility for suspension of cars</td>
<td>145</td>
<td>21.6</td>
</tr>
</tbody>
</table>

*Cumulated amount of percentages exceeds 100% because respondents have given more than one correct answer

According to 37.6% of the patients there are not conditions for access to the office of their personal physician for people with physical disabilities and mothers with prams, and 21.6% are of the opinion that there is no possibility to stop the car near the doctor's office.

From the presented results we can conclude:
1. The lack of organization in the work of general practitioners in outpatient increases the waiting time at the front office which is one of the problems leading to limit patients' access to their personal physicians.

2. The amount of consumer fee is a problem of access to GP for 24.8% of respondents.

3. GPs provide 24-hour attendance of patients for 78.3% of respondents, while complying to the National Framework Contract.

4. For 59.2% of respondents there are not insured physical access to the practice of primary care as the conditions are not complied.

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FOREIGN TRADE RELATIONS OF THE REPUBLIC OF TAJIKISTAN

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Abstract

The article sets out the theoretical and methodological foundations of economic security of the Republic of Tajikistan in the context of foreign trade, justified the crucial areas of foreign policy, in order to ensure the effective integration of national economies into the globalization process.

Global level has become increasingly significant component of the backbone of national socio-economic development, to provide active impact on most areas. This requires the development of the Republic of Tajikistan and to take appropriate measures to ensure the appropriate level of economic security. Globalization presents opportunities for the Republic of Tajikistan for the realization of their economic interests. For the formation of the national economy, new risks and external threats that are global in nature and systemic, which determines their particular relevance to systemic measures to ensure economic security.

Key words: economic security, international trade, economic globalization, export, import.

INTRODUCTION

At present, the formation and development of the independent Republic of Tajikistan to increase significantly the role of trade policy, as one of the most important factors of socio-economic development and competitiveness of the economy. With the growth in exports, diversification and intellectualization imports growing participation of Tajik businesses in various forms of international capital flows is the integration of trade policy into a single reproductive process. The increasing problem of protecting national interests in a globalizing world, monitoring and forecasting of factors that reduce the economic security of the country [1-2].

The present period is characterized for the independent republic of Tajikistan, as a rapidly increasing process of transnationalization in the production and international exchange, on the scale and geography of capital flows.

World has changed radically, and economic activity becomes increasingly interdependent, interconnected, becomes predominantly global. Globalization, as a specific historical phenomenon typical main areas of international, economic and social life, has become a dominant trend, describes the dynamics of the global economy and trade. Understanding the process of globalization, its contents and forms of manifestation, the impact on all aspects of social and economic life have not yet fully completed, remains a subject of scientific inquiry and debate, attracting ever larger sections of scientists, international experts. Most of them are of the view that globalization is a natural product of the world of social development, the continuation of the process of internationalization of all parties of economic, scientific, cultural and social life.
THE FOREIGN ASPECT OF ECONOMIC SECURITY

The foreign aspect of economic security has become especially important because of the formation of the potential threats. Established to date model of international specialization of the national economy, based mainly on the export of raw materials, intermediate goods and imports of machinery, equipment, components, and define the specifics of foreign policy, its defense priorities, primary forms and measures of state regulation of trade. [3]

On March 2, 2013 Tajikistan officially became 159th member of the World Trade Organization (WTO), designed to provide a legal basis for a multilateral mechanism for the regulation of international trade in goods, services, intellectual property objects. To overcome the significant risks on adaptation of the trade regime and the country’s obligations under the WTO. January 9, 2013 The country's parliament has ratified the Protocol of Accession to the WTO Tajikistan. The protocol was signed in December 10, 2012 by the President of Tajikistan Emomali Rahmon and WTO General Director- Pascal Lamy. February 4, 2013 the representative of the Republic submitted its instrument of ratification of the Protocol on Tajikistan's accession to the WTO Secretariat in the organization in Geneva. Tajikistan was the second republic in Central Asia after Kyrgyzstan to join the WTO. From date of the application for accession to the WTO (May 2001), WTO members demanded the liberalization of Tajikistan legislation on foreign trade, investment, reduction of customs duties. In September 2012, Tajikistan adopted a new tax code. Significantly reduces the number of items of tax. 2017 stipulates a reduction in the income tax rate for manufacturers of products with the existing 15% to 13%, and for other activities - from 25% to 23%.

International experience demonstrates the need for a harmonious integration of norms, rules, regulations, WTO, the sphere of foreign policy, regulation of domestic trade, the protection of the national market of producers and consumers of goods, procedures for licensing of foreign goods and services, regulation of foreign commercial presence in various sectors of the national economy.

STRATEGIC GUIDELINES OF INTEGRATION INTO THE WORLD TRADING ECONOMY

Tajikistan is one of the republics of Central Asia which consists of more such republics as Turkmenistan, Uzbekistan, Kyrgyzstan, all native Central Asian post-Soviet republics, plus Kazakhstan, which historically, geographically, economically and politically close to Central Asia. Central Asia - is one of the most unique parts of the world, the area of approximately 4,000,000 s km², which is much larger than that of all the countries of the European Union. The region is home to 55 million people. He has vast natural resources: deposits of oil, gas, precious and base metals. Trade and economic relations between the countries of the region significantly developed [5-6]. Tajikistan's foreign trade in 2012 was $ 5 billion 137.6 million dollars, which is 15.1 percent / 674 million dollars / more than in 2011. The trade balance was negative and amounted to 2 billion 418 million dollars
Tajikistan supports trade relations with 102 countries. Merchandise exports in 2012 amounted to more than 1.3 billion U.S. dollars, up 8.1 percent, more than in 2011. Imported goods worth more than 3.7 billion, which is 17.8 percent more than in 2011. In 2012 compared with 2011 the export of finished food products by 52 per cent per cent, machinery and equipment - by 42.6 per cent, base metals and articles thereof - by 18.9 per cent, plant products - by 8.2 percent. The export of vehicles and mineral products in 2 times, precious metals - by 58 percent, and textiles - by 11.6 per cent (Fig. 1). Also increased in the past year, import of vehicles - by 2.3 times, plant products - by 35.8 percent, finished food products - by 10 percent.

In 2011, Tajikistan imported 132.4 million cubic meters of natural gas in the amount of $ 38.6 million natural gas imports in 2012 decreased in value by 20.1 percent, and the volume - by 26.5 percent. (Fig. 2).
Major trading partner of Tajikistan in 2012 was Russia, the turnover which exceeded $ 1 billion, followed by Kazakhstan / 799 million USD / China / 669 million USD / Turkey / $ 600 million / Afghanistan / 232 million dollars / Iran / 217 million dollars / (Fig. 3).

For the Republic of Tajikistan, countries such as Russia, USA, China, EU, Iran, Turkey, to constitute the international trade policy. These countries became dominant rod components of the new system of international relations of the country.

As suggested above, one of the most influential of which is the leader of geopolitical dominance - Russian Federation. Tajikistan supports the further integration and convergence with Russia, because Russia's interests do not conflict with the supreme national interest of the Republic of Tajikistan. From Tajikistan to Russia exported agricultural products, cotton, tobacco and aluminum. From Russia to Tajikistan provides food, agricultural raw materials, chemical products, petroleum and petroleum products, machinery and equipment, vehicles. The volume of trade with Russia, according to the Agency for Statistics under the President of Tajikistan in January 2013 was 66.2 million (decrease by January 2012 - 20.1%). The supply of goods to Russia from Tajikistan were 5.9 million (growth - 59.4%), while imports from Russia to Tajikistan - 60.3 million (decrease - 23.7%). Russia's share in foreign trade of the Republic of Tajikistan in January 2013 was 15.4% (January 2012 - 20.8%).

Analysis of the dynamics of supply for the main Russian export-import goods for January 2013 is shown in Table 1.
Table 1. Analysis of the dynamics of supply for the main Russian export-import goods for January 2013

<table>
<thead>
<tr>
<th>№</th>
<th>Name of goods</th>
<th>Amount to U.S. million dollars in January 2013</th>
<th>% of total supply</th>
<th>% Decrease or increase in 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Import of goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Petroleum products</td>
<td>20.0</td>
<td>33.2</td>
<td>Decrease 37.4</td>
</tr>
<tr>
<td>2.</td>
<td>Wood and wood products</td>
<td>10.8</td>
<td>17.9</td>
<td>Decrease 2.8</td>
</tr>
<tr>
<td>3.</td>
<td>Machine - Technical Production</td>
<td>2.3</td>
<td>3.9</td>
<td>Decrease 47.7</td>
</tr>
<tr>
<td>4.</td>
<td>Ferrous metals and products from them</td>
<td>6.5</td>
<td>10.8</td>
<td>increase 44.3</td>
</tr>
<tr>
<td>5.</td>
<td>Cement</td>
<td>1.9</td>
<td>3.1</td>
<td>increase 12.3</td>
</tr>
<tr>
<td>6.</td>
<td>Fats and oils of vegetable or animal origin</td>
<td>3.4</td>
<td>5.7</td>
<td>increase 22.9</td>
</tr>
<tr>
<td>7.</td>
<td>Cocoa and its products</td>
<td>1.4</td>
<td>2.3</td>
<td>increase 1.7</td>
</tr>
<tr>
<td>8.</td>
<td>Sugar and sugar confectionery outdated</td>
<td>0.5</td>
<td>0.8</td>
<td>Decrease 12.3</td>
</tr>
<tr>
<td>9.</td>
<td>Cereals</td>
<td>1.5</td>
<td>2.5</td>
<td>increase 15.6</td>
</tr>
<tr>
<td></td>
<td>Export of goods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.</td>
<td>Cotton</td>
<td>2.1</td>
<td>36.7</td>
<td>Decrease 26.7</td>
</tr>
<tr>
<td>2.</td>
<td>Vegetables and root crops</td>
<td>0.03</td>
<td>0.5</td>
<td>Decrease 28.2</td>
</tr>
<tr>
<td>3.</td>
<td>Fruit and nuts</td>
<td>0.1</td>
<td>2.0</td>
<td>Decrease 2.6</td>
</tr>
<tr>
<td>4.</td>
<td>Fruit and vegetable products</td>
<td>1.48</td>
<td>0.3</td>
<td>Decrease 2.4</td>
</tr>
</tbody>
</table>

It should be noted, also strengthening the U.S. position in Tajikistan. Markedly develop Tajik-US trade and economic relations. Trade relations with the United States began to be implemented in 1992, although develop unevenly. For example, trade between the two countries over the period 1993-2000, decreased in 12, 5 times, and in the subsequent 2002-2012 increased 6-times. Overall, in the period of 1993-2012 years total volume of trade between Tajikistan and the United States amounted to 263 million dollars in the total volume of bilateral trade between Tajikistan and the United States exports from Tajikistan was equal to 29, 9%, and imports to Tajikistan 70, 1%. One of the reasons for the decline of trade are unfavorable transport conditions created due to high transport costs, adopted by the countries through which passes a transit cargo transportation.
One of the most important partnerships powers affecting the integration into the world trading economy in Central Asia, can be considered China. China in the frame of Shanghai Cooperation Organization (SCO), a much expanded relations with all the Central Asian republics (Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan). In the framework of this organization China consolidated with these republics trade ties, increased investment. Tajikistan has a relatively strong relationship with China. In a relatively short historical period has achieved significant results. In 2012, trade between Tajikistan and China amounted to 669 million U.S. dollars, while in 2001, the foreign trade turnover between Tajikistan and China was only 7, 4 million, while in 2007 it amounted to 283, 6 million. Iran and Turkey are also important trade partners of Tajikistan. Trade turnover between Tajikistan and Iran in 2012 exceeded $ 180 million. Iran is one of the leaders in the total turnover of the Republic of Tajikistan. According to the Statistics Agency of the country, Turkey had 36.3% of total exports. This figure with China was 13.3%. These countries are mainly exported primary aluminum and cotton fiber. In total, in 2012, the amount of exports to Turkey amounted to $ 493.3 million, with the amount of imports for the period were $ 107.1 million, thus, a significant excess of exports over imports in trade with Turkey was $ 386.2 million. Trade turnover between the two countries compared to 2011 decreased by 4.1%. Effective use of variants to both internal and external, including the mutually beneficial economic cooperation, open to the Republic of Tajikistan, the real prospects of integration into the world community, dynamic economic growth.

STUDIED PROBLEM

Investigated the problem of economic security of foreign trade of the Republic of Tajikistan in the context of globalization is at the crossroads of different directions, covering both theoretical and practical aspects of macroeconomic and foreign trade management. During the period under review (2000-2012) Tajikistan was the only country in Central Asia, which has reduced the export price and the exchange rate in 2012 (Figure 1, b) In 2012, the total exports of goods amounted to more than $ 1.3 billion and imports has developed in more than $ 3.7 billion in 2012, exports decreased by about 45% compared with 2000 imports, however, increased by 17%. As a result, turnover has changed slightly and remained at 30% of GDP (Figure 3a, b). Tajikistan's trade deficit is very large, since 2008, it is more than 10% of GDP.
Figure 4a ratio of exports and imports in the foreign trade of the Republic of Tajikistan (U.S. $ million)

Figure 4.b ratio of trade and balance of foreign trade of the Republic of Tajikistan (U.S. $ million)

Sources: COMTRADE, Statistics Agency of the Republic of Tajikistan
Figure 5.a. Exports of the Republic of Tajikistan in 2012, commodity structure

It should be noted that during the last years: 1) the exports of aluminum is shown in the official statistics as exports of services, not goods 2) in Tajikistan, as well as in Kyrgyzstan, has acquired great importance to informal trade.

Tajikistan's main export is raw aluminum (Figures 5a, b). Between 2000 and 2012, its share in total exports increased from 51 to 62%. Export Destinations aluminum changed, in 2000 it was the EU and Russia, and in 2012 - China and Turkey. This explains the significant change in the shares of these countries in the geographical structure of Tajikistan's exports. The second most important export product is cotton fiber. Exports, expressed in prices and the exchange rate in 2012 remained at the level of 2000, however, due to a general decline in exports, the share of the product in total exports increased from 11 to 17%. A switch of cotton supplies from Switzerland, Latvia and the Slovak Republic to Turkey, Iran and Pakistan, while Russia has maintained its position as one of the largest buyers of this product. Most recently, Tajikistan has increased export of fruits and vegetables to Russia. Electricity exports to Uzbekistan is stopped. As a result of all these changes the composition of three major export markets in 2012 (China, Turkey and Russia) was very different from what it was in 2000 (the EU, Russia and Uzbekistan).
Figure 5.b. Exports of the main partners of Tajikistan

Figure 6. A. Imports of the Republic of Tajikistan in 2012: product structure
VOLUMETRIC AND STRUCTURAL CHANGES IN THE FOREIGN TRADE OF THE REPUBLIC OF TAJIKISTAN

In foreign trade of the Republic of Tajikistan, the service sector has developed significantly, although for most of the world is a tendency of increasing the value of the market of services. [7] This is a distinctive form of impact on the degree of participation of Tajikistan in the field of international exchange, change in the share of services in total trade and the structure of exports and imports of services. In Tajikistan, the share of exports and imports of services in the total volume of foreign trade in goods and services was 6.8% in 2001, and 8.4% in 2005 and 11% in 2009. It should be noted that the international trade in services is growing rapidly. So, for last four years, the total volume of international trade in services of the Republic of Tajikistan has more 2-times, the export of services by 2.1 times, and
imports - by 1.8 times. On the scale of exports of services Tajikistan lags behind not only many developing countries, but also some of the CIS countries - participants of the international trade in services - Russia, Belarus, Kazakhstan, Kyrgyzstan, Uzbekistan, Moldova. During the last period, the foreign trade balance for services as opposed to balance of foreign trade was positive, indicating that a change in its export orientation. However, the ratio of exports and imports of services has changed over the years. In 2001 imports of services in total exports was higher by 10.5% in 2002 - by 20.6%, in 2003 only 3%. As for 2012 years, despite the impact of the financial crisis, exports of services exceeded its imports by 3.1 times compared to 1.9 times in 2005. This was evidenced by the data in Table 2.

Table 2. Export-import operations of international services of the Republic of Tajikistan

<table>
<thead>
<tr>
<th>2005 Totaly</th>
<th>Including Export</th>
<th>Import</th>
<th>2012 Totaly</th>
<th>Including Export</th>
<th>Import</th>
<th>rate of increase %%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total, $ million</td>
<td>239,7</td>
<td>107,2</td>
<td>56,1</td>
<td>5137,6</td>
<td>1359,4</td>
<td>3778,2</td>
</tr>
<tr>
<td>The CIS</td>
<td>121,8</td>
<td>93,3</td>
<td>28,5</td>
<td>2310,9</td>
<td>239,3</td>
<td>2071,5</td>
</tr>
<tr>
<td>Russia</td>
<td>59,8</td>
<td>37,1</td>
<td>22,7</td>
<td>1067,5</td>
<td>106,9</td>
<td>960,6</td>
</tr>
<tr>
<td>Other parts of the World</td>
<td>45,5</td>
<td>13,9</td>
<td>27,6</td>
<td>1297</td>
<td>872,1</td>
<td>425</td>
</tr>
<tr>
<td>EU</td>
<td>12,6</td>
<td>3,4</td>
<td>9,2</td>
<td>462,2</td>
<td>141,1</td>
<td>321,1</td>
</tr>
</tbody>
</table>

Source: Foreign Trade of the Republic of Tajikistan 2012.

In the export-import operations in Tajikistan on international services, the share of CIS countries decreased from 74.6% in 2005. to 42.8% in 2009. At the same time strengthen the position of the rest of the world - 25.4% to 57.2%. It must be emphasized that in the export-import operations, international services Tajikistan clearly switched to the non-CIS countries, particularly in the European Union. At the same time, the importance of Russia as an important partner increases. Thus, if the volume of export-import operations on international services RT with CIS countries, in four years has increased almost 1.4 times, with Russia - 2 times. Consequently, its share in total trade of Tajikistan international services increased from 12.4% in 2001. to 49.2% in 2005. In 2009. More than 70% of imported RT services goes to Russia. During the reporting period, with growth of export-import operations in Tajikistan with the rest of the world is more than 5 times, in the EU countries it has increased by 12 times., And the share of services in the amount of EU countries in the rest of the world increased from 27.6% in 2005. to 71.1% in 2009. Tajikistan provides services to many European countries: Germany, France, UK, Italy, Spain, Austria, and Switzerland. Exports of services to these countries increased by more than 1.2 times, the import, it is - services related to the establishment of the enterprises in Tajikistan European partners high-tech equipment, as well as Internet services. Of imported services in the first place are airport services in passenger service and air traffic control, transportation and handling of goods, which account for 54.7% of total imports of services. However, their share in total exports of 12.3%. Next on the major source of foreign trade is dominated by services and construction services import surplus from 1.5 times
to 4.3 times. The share of services for the construction of bridges, canals, dams, tunnels, subways and highways of 19.1%, and for the past five years, the volume of construction services has increased by 3.5 times. The structure of the Tajik foreign trade in services is fundamentally different from the structure of services sold to developed countries. Thus, the sectoral structure of world exports of services previously dominated transport, now higher growth characteristic of international tourism and services such as banking and insurance services, communication and information. In recent years, the importance purchased consulting services, despite the fact that imports of Tajikistan occupy a small proportion of the tendency of their rapid growth.

Specialization of the country in the export and import of certain types of services is determined by the level of its economic development, and the structure of foreign trade "invisible" product rather obviously depends on what group of States is a country-exporter or importer - low, medium or high income. In industrialized countries, dominated by financial services, telecommunications and other business services.

It should be noted intensification of foreign partners, especially the U.S. and China, which own 60% of the country's telecom market. In the domestic market has increased the attractiveness of foreign companies to implement satellite broadcasting and communications for the high quality and the complexity of services offered. Expanded the Russian segment of the market of communication services in Tajikistan.

International trade in services, or so-called "invisible" exports and imports, includes traditional services: transport, communications, insurance products, after sales service, advertising, foreign tourism. With the transition to a market economy are relatively new services: engineering, leasing, consulting, development of computer software, databases and data-processing services, which are industrial, scientific, technical, informational, commercial, financial and credit nature. It should be noted that the development of foreign trade of the Republic of Tajikistan is similar services, countries with weak economies.

CONCLUSION

The object of analysis appears as a national economic system of the country as a whole, as well as external factors of its security, its constituent elements: the market of foreign trade in goods, services, market of intellectual property, international capital market, etc. The essence of security of foreign trade is to ensure that the results of the international trade, financial and investment activities of the national and state interests of the state, the results of which are defined in the strategic orientations of its economic development in the short and long term.

Essential components of the concept of economic security of foreign trade are the respect of the international community, national interests and objectives of the state outside its territory in the global markets for goods, services, capital, including in the framework of international economic, trade, monetary and financial institutions.
REFERENCES


THEORETICAL ASPECTS OF IMMOVABLE PROPERTY TAX

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Abstract

Immovable property tax ensures stable revenues in the budgets of local governments due to the localisation of immovable property taxable items (land, buildings), their relative stability and registration; hence it is impossible to hide taxable items and avoid paying of the tax. The present paper focuses on the analysis of definitions provided by different authors in economic literature for the terms “tax” and “immovable property” and offers the authors' definition for the mentioned terms to understand better the essence of immovable property tax and theoretical aspects of taxation. In addition, the paper dwells upon historical development of immovable property tax, analysis of tax theories justifying taxation of immovable property, and assessment of positive and negative aspects of immovable property tax.

Key words: immovable property, tax, tax theories, development.

1. INTRODUCTION

Immovable property tax being more neutral towards the general economic system is most directly related with the territorial administration and socio-economic situation of an individual local government. Immovable property tax ensures stable revenues in municipal budgets.


Lack of scientific publications among relatively few publications on immovable property tax issues dwelling upon the studies of immovable property tax essence and theoretical aspects verifies the topicality and choice of the research theme.

The research hypothesis: immovable property is one of the oldest and most stable taxable items.

The research aim advanced to verify the hypothesis is to provide an overview on the development and theoretical aspects of immovable property tax.

The set research aim results in the following research tasks:
1) to study the development of taxes and to analyse tax theories which justify levying of immovable property with taxes;
2) to analyse the definitions provided by different authors in economic literature for the terms “tax” and “immovable property”;
3) to assess positive and negative aspects of immovable property tax.

The method of historical approach, a monographic descriptive method, and logic methods were applied for the research purpose.
2. DEVELOPMENT OF IMMOVABLE PROPERTY TAX

Taxation has existed in various forms since the beginning of civilisation. Taxes may be considered as one of the oldest public institutions; tax emergence is inseparably connected with the existence of the state. Transition from natural economy to relations of money required also the establishment of a tax mechanism. The development history of civilisation presents much cognition on taxes and taxation procedures. Some tax constructions have remained unchanged up to nowadays, while others have been changed significantly or liquidated considering the impact of social, economic, and political processes. Taxes as an element of economic culture are characteristic to all types of economy starting from the ancient times up to nowadays for both market and non-market type economies. Historically, the formation period of tax system is related with the division of society into social groups, and states as the origination of institute of public organisations (Ketners, Lukašina 2008).

The understanding on foundations of tax system is more effective following the historical development of taxes. The research authors have outlined three stages of historical development of tax systems (Table 1), where each coming stage differs from the previous one with higher development level of tax administration and increase of tax significance in the state revenues.

Table 1. Three stages of historical development of tax systems

<table>
<thead>
<tr>
<th>Period</th>
<th>Most characteristic attributes of the period</th>
<th>Main basic types of the state’s revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient period</td>
<td>Primitive, unsystematic collection of taxes, determined by unwritten laws or the common law</td>
<td>Duties in kind, donations, war trophies, capturing of territories</td>
</tr>
<tr>
<td>The 16th-19th century (up to World War I)</td>
<td>Transition from natural economy to relations of money requires the establishment of a tax mechanism. Increase of the role of taxes in the formation of the state revenues and a relatively systematic collection of taxes. Development of concrete tax systems, tax structuring, and unification. Development of tax theories as complete science systems on compulsory payments. Development of basic taxation principles.</td>
<td>Many new types of taxation, mainly indirect taxes, are introduced</td>
</tr>
<tr>
<td>From the 19th century (after World War I) to nowadays</td>
<td>Strengthening of the role of taxes as permanent and regular revenues. The role of state in the formation and development of tax policy becomes stronger. Reduction and simplification of tax system elements.</td>
<td>Direct taxes are included into the state tax systems</td>
</tr>
</tbody>
</table>


The first stage (ancient period) characterises with primitive payments, which were unsystematic and basically included duties in kind and donations. Moreover, donations were not voluntary but set by unwritten laws or the so-called common law. This stage produces also an unsystematic tax collection without a special tax collection institution. A need for taxes arose with the establishment of a state and...
a necessity to maintain state institutions – the army, civil servants, and the court. Maintenance of the state authority required regular income both in kind (duties in kind) and cash (taxes), and collection of these payments were done on behalf of the state. However, the state authority did not have financial institutions yet that would be able to ensure tax collection. Thereby, taxes were collected by collective authorities (communities, towns) or individual tax collectors who made settlements with the state.

For example, in Egypt, taxes were collected by territorial officers with the help of judges, clerks, and in case of necessity, military troops. The system was relatively complicated already at that time as BC 1700 the calculation of land tax in Egypt was based on the water level measurements in the Nile. The water of the Nile was used to water and fertilise fields and every year the soil fertility depended on the water content of the Nile (Andrejeva, Ketners 2007).

In the ancient China, in turn, the payment of taxes was initially organised more according to a corvee principle, which envisaged a joint farming of land plots for the sake of a governor. However, in China, the land taxation started to developed already in the 11-12th century BC, the tax rate was determined consistent with the land area in use. The land tax was mainly paid as a duty in kind – by grain. Communities of population were responsible for the payment of tax. This means that a community, which farmed a land of certain area, had to pay the levied tax proportionally to the number of community members. Tax on the use of public land and immovable property existed also in the ancient Rome.

A legal regulation for the collection of immovable property tax was adopted in the ancient Babylonia already in the 13th century BC. These were compulsory payments for the use of property and they were paid either in kind or in cash (gold). Taxes had to be paid in the king’s treasury and the treasury of local nobility, tax rate was 10% of the total property. Taxes were paid by free landowners and artisans, thus, taxable subjects were private persons, while taxable items – property.

Changes in tax payments and collection started in the 15th-16th century with the expansion of monetary economy. At that time, the state central authority strengthened in Europe and thus the significance of various payments (state taxes) collected on behalf of the state and regularity of their collection increased more considerably. Taxes on behalf of the state were collected by a “tax redeemers” institute, while town councils performed these functions in the towns. Immovable property tax was one of the main taxes, which in several towns of Germany was collected consistent with a special methodology. Every person who owned an immovable property had to declare it but the town council had a pre-emptive right for a declared value of the property to avoid the reduction of property value (Ketners, Titova 2009).

The second stage (the 16th-19th century) in the development of taxes outlines the increase of the role of taxes in the formation of the state revenues and the formation of concrete tax systems – it marks structuring and unification of taxes. Tax theories as complete science systems on compulsory payments, their essence and role in the economic and socially political life of the society are developed and emerge during this stage of development. It is worth noting that this stage is characteristic with the development of both general tax theories and individual theories.

The study of tax essence has allowed the classics of economic thought (A.Smith, N.Turgenev, A.Wagner) to formulate the fundamental principles of taxation – equity, certainty, convenience, cost efficiency, simplicity, neutrality, and others.

To explain the essence of immovable property tax and to justify theoretically its necessity, advantages, and objective and subjective aspects for its formation, the authors provide a profound survey on different tax theories that substantiated the development of immovable property tax (Table 2).
Table 2. Theories substantiating the development of immovable property tax

<table>
<thead>
<tr>
<th>Theory</th>
<th>Representatives</th>
<th>Cognitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single tax theory</td>
<td>F. Kenney (1694-1774) J. Locke (1632-1704)</td>
<td>The only productive labour is agriculture and the only source of wealth – land, thus, land is also the only source of taxes. The theory justified the necessity for a single land tax.</td>
</tr>
<tr>
<td>Tax neutrality theory</td>
<td>A. Smith (1723-1790) D. Ricardo (1772-1823)</td>
<td>Taxes – the main source of financing for the state expenditure. Taxes are a fair price for the state services. The principle that all income comes from the nature and human effort is observed in the tax structure. Therefore, the state shall collect taxes from land and other property (property taxes), capital earned by population (capital taxes), labour and related income (income and profit taxes) as well as circulation of manufactured goods and consumption.</td>
</tr>
<tr>
<td>Theory of natural and absolute advantage</td>
<td>A. Smith (1723-1790)</td>
<td>Land as a significant economic resource plays the major role in the wealth creation. The theory allowed to explain and theoretically justify the large impact of immovable property location on its price.</td>
</tr>
<tr>
<td>Rent theory</td>
<td>A. Smith (1723-1790) D. Ricardo (1772-1823)</td>
<td>Land tax is considered as an equivalent to land rent tax and it does not cause the price increase on the agricultural produce market. It is regarded that land areas of lower fertility should not be taxed, since they do not generate rent revenues.</td>
</tr>
</tbody>
</table>


A. Smith greatly contributed to the theory of immovable property tax application in relation with rent revenues received by the owner of a corresponding immovable property. According to A. Smith, land tax, which is paid by an owner of a residential building, should not increase the price of a building. In addition, land tax shall be paid by those landowners who receive an increased rent for the use of their land areas in the best and most efficient way. D. Ricardo further developed aspects on the application of the rent theory and immovable property tax in his work “On the Principles of Political Economy and Taxation” published in 1817 (Vanags 2010). A study of D. Ricardo on the establishment of land rent and the large impact of the location of land area on the process of its valuation is regarded as an essential contribution to the development of immovable property tax. His research results on the application of immovable property tax considering the land rent payments, and subjective and objective aspects of their formation, provides larger opportunities to increase the compliance of tax system with interests of the society and to apply the principles of equity and equality for the development of tax system much broader (Vanags 2010).

It is generally acknowledged to regard the end of World War I as the beginning of the third stage in the development of taxes, which continues up to nowadays. In addition, it is considered that the inter-war period generated the search of scientists, economists, and financiers for an optimum approach towards the balancing of the state revenues with the interests of taxpayers and financing of the state expenditure. In general, the contemporary tax evolution stage characterises with a complete tax administration done by the state and state institutions; regional and local authorities only serve as tax administration.
assistants. Tax system unification among countries, and reduction and simplification of tax system elements are the main features of the third stage (Andrejeva, Ketners 2007).

After analysing the development stages, the authors have concluded that there is a need for systematisation of a historical experience in the use of taxes and evaluation of theoretical tax cognitions to develop a realistic tax application practice (legislation and methodology) for any type of taxes including immovable property tax (Figure 1).

![Tax system unification among countries, and reduction and simplification of tax system elements are the main features of the third stage.](image)

**Figure 1. The development of logical judgements and activities related with the essence of taxes**

*Source: authors’ construction based on Юткина 2001, Kavale, Joppe 2008*

Figure 1 outlines that the taxation initiates with the clarification of tax notion and perception of philosophical thought on the tax as an element necessary for the society. Every tax reformation phase includes methodological studies on tax problems, which are related with a particular tax practice. Taxation is considered a complicated system, which, largely, is affected by external economic and political environment. Its functioning is an essential for the entire state.

Two main spheres shall be covered in the analysis of tax theories:

- taxes as objectively necessary economic category – the selection of the number, forms, types etc. of taxes;
- legal relations between a taxpayer and the state – rights, obligations, responsibility etc. (Kavale, Joppe 2008).

Possibilities for the improvement of these two spheres are multiform and infinite. Nowadays, they continue to develop and improve. Activities for the establishment of an optimum tax system are
continuous. The same refers to the discussions on equity, equality, democracy, public validity, and objectivity in the establishment, policy, and administration of the tax system. All these activities are needed to select the right form of taxes and fill it with a certain organisational content.

3. THEORETICAL FOUNDATION OF IMMOVABLE PROPERTY TAX

Terms “tax” and “immovable property” require a content analysis to study profoundly and comprehensively the essence of immovable property tax.

Economic literature offers various interpretations for the terms “tax” and “immovable property”.

Historically, it has originated that people perceive taxes as compulsory payments, which are collected by the state or local government from natural and legal entities consistent with the tax rate set by the legislation.

Taxes are indispensable attribute in the society from the moment of state establishment. Changes and development of the state political system have always been related with the reorganisation of tax system. Taxes have become the principal form for the state revenues in the contemporary society (Ketners, Titova 2009).

The law “On Taxes and Fees” (2009) prescribes that a tax is a mandatory payment into the state budget or local government budgets (basic budget or special budget) provided for by law which is not payable for the acquisition of specific goods or receipt of services and is not a payment of a fine, an increase in the amount of the principal debt or a late charge, nor a payment for the use of state capital or part thereof.

According to a professor O.Lukašina (2008), taxes are compulsory payments in cash, which are paid regularly into the state budget by any person who gains income.

Professor I.Muižnieks, in turn, considers that taxes, which are mandatory payments provided for by law, are collected to ensure general welfare to the state population and to pay for publicly important goods and services (Nodokļu politikas tiesiskie un ekonomiskie aspekti 2010).

Professor K.Ketners (2009) defines tax as financing of citizens and companies for the state activities, which is aimed at satisfaction of public needs.

Professor T.Jutkina (2001) offers the following definition – “tax – a compulsory payment, which is collected from natural and legal entities and paid into the respective budget (federal, regional, local)”. Here, mandatory payments are identified as “acquisition of legally provided money resources from natural and legal entities, which are gained from business and other sources”.

According to a professor A.Kazaks, “taxes as important category of values are characterised by “monetary relations” through which a state without reimbursement withdraws certain part of the national income to finance and implement its functions” (Nodokļu politikas tiesiskie un ekonomiskie aspekti 2010).

Arlo Woolery (1989), a professor from the USA, regards tax as mandatory payment of private persons and public organisations for the state support to ensure public services.

The European Union term glossary (2004) defines tax as legally required payment from the government or state institutions to cover public (state and local governments) expenditure.
The Explanatory Dictionary of Economic terms (2000) identifies tax as compulsory regular payment, which is collected from natural and legal entities by the state through central or local institutions. Taxes are the basic budget sources for the central government and local governments.

The *1993 System of National Accounts* provides more precise definition for the term “tax”:

“Taxes are compulsory, unrequited payments, in cash or in kind, made by institutional units to government units. They are described as unrequited because the government provides nothing in return to the individual unit making the payment, although governments may use the funds raised in taxes to provide goods or services to other units, either individually or collectively, or to the community as a whole.”

The evaluation of interpretations on the term “tax” provided by different scientists and definitions prescribed by the legal enactments allow the authors to conclude that each source ensures definition according to its understanding; however, there are several similarities and basic features:

1) tax is a compulsory payment (state legally requires to make compulsory payments);
2) tax has a unilateral type of imposition (state determines the type of tax);
3) tax is an unrequited payment (none of the person paying taxes receives any benefit);
4) tax has a legally prescribed taxation basis and type of collection (taxes are imposed only after setting of the basic taxable items: taxpayers, taxable item, tax base, tax rate, procedure for tax calculation, procedure and deadlines for tax payments);
5) basic functions and aim of tax – financial provision of the state operation (fiscal function) and financing of public needs (regulative function).

After analysing the drawbacks of the existing definitions, the authors provide their definition for the term “tax” – “tax is a mandatory, unrequited payment provided for by the law and made by natural or legal entities to finance basic functions of the state or local governments with the aim to ensure public needs”.

Further, the authors have analysed the essence of the term “immovable property” and its interpretation in different sources of literature.

The Explanatory Dictionary of Economic terms (2000) defines the term “immovable property” as officially registered land by a natural or legal entity as well as buildings, constructions, forests, water reservoirs, and other wealth located on the particular land area.

Though, immovable property within the meaning of the “National Real Estate Cadastre Law” is an object of real estate (a unit of land or a structure) or a set of these objects (a unit of land and a structure) which in accordance with the norms of the Law on Recording of Immovable Property in the Land Registers complies with the requirements of an independent compartment. An apartment property or apartment, artist’s workshop, unoccupied premises, which has been given into ownership up to the privatisation of the residential house shall also be regarded as real estate (Nekustamā īpašuma valsts kadastra likums 2011).

Professor J.Vanags (2010) offers the following interpretation for the term “real estate”. Real estate – surface of the land, air space above it and bowels of the earth below it including mineral deposits as well as all buildings and other constructions on the land surface or under it. Geographical coordinates being an obligatory characteristic of real property.
Different publications on economic theory and legal content identify immovable property with slight differences. For example, John W. Reilly in his book “The Language of Real Estate” defines real estate as physical land area in a certain space, air above it and everything below it including mineral deposits of any kind – material or immaterial, pure or in relation with other substances or materials that may be used for any purpose. The term “real property”, in turn, is defined as subset of land, air above it and the bowels of earth as well as all mineral deposits and all objects related with land including buildings, fences, and other constructions, different improvements and fixations (Reilly 2000).

According to the above-mentioned explanation of the term “real property”, it encompasses a set of income, other benefits and rights that are characteristic to immovable property. Although, there are no essential discrepancies among these interpretations, it should be noted that the explanation of the term “real estate” more focuses on land, land plot included into immovable property, its area as well as bowels of the earth under the particular subset of land in the direction to the centre of the earth and air above the particular subset of land. The explanation of the term “real property” mainly focuses on immovable property as potential source of wealth, its application for generating income and other benefits, which are directly related with the rights to use immovable property to ensure personal existence and increase of wealth (Vanags 2010).

Arlo Woolery also in his book “Property Tax Principles and Practice” provides different explanations for the terms “real estate” and “real property”. The term “real estate” is clarified as land and any improvements located on it that are tangible, visible, and touchable; while, the term “real property” is referred to legal rights related with the ownership of real property and the rights of ownership (Woolery 1989).

The compound of words – immovable property has originated from a Latin word im-mobilis, which means “objects that do not move” (are immobile) (Larson 1991).

A word “immovable” is used also in English to define real property. “Immovable property” is a legal term that encompasses land along with anything permanently affixed to the land such as buildings, which are immovable (International Immovable Property 2012).

Section 842 of the Civil Law of Latvia determines that tangible property is either movable or immovable, depending on whether it may or may not be moved without external damage from one location to another (Latvijas Republikas Civillikums, 1937). Hence, consistent with the Civil Law, one may affirm that an object, which cannot be moved without any changes in its visual and contextual form, is considered immovable property. Other authors also define “immovable property” as item that could not be moved.

For example, D.Baltruma and J.Freibergs define immovable property as “land plot or property closely related with land, which cannot be moved from one place to another without damaging it” (Baltruma, Freibergs 1999).

The Encyclopaedia of Latvia (2007), in turn, determines immovable property as item belonging to a natural or legal entity, which is immovable or movable without causing damage to its economic purpose. Immovable property encompasses land and any buildings, constructions, forests, water reservoirs, and other objects affixed to it.

The Dictionary of Economics and Finance (2003) defines immovable property as land and water, buildings and constructions as well as objects that cannot be moved from one place to another without an external damage.
In addition, Section 968 of the Civil Law of Latvia determines that a building erected on land and firmly attached to it shall be recognised as part thereof (Latvijas Republikas Civillikums 1937). This regulation means that everything built on land is a supplement to the primary part of land. It may be both land improvement and land lien. Everything attached to land deteriorates in the course of time. Land remains physically unchanged; it is not subject to deterioration.

The authors conclude that immovable property has multiform interpretations and explanations, and each has its own direction and range of impact.

The research authors reveal the following description of the term “immovable property”:

1) immovable property has a definite value created by the nature (land) and human labour (farmed land, buildings, constructions);
2) immovable property may be used to ensure personal existence;
3) immovable property is immobile completely (land) or partially without an external damage to it (buildings, constructions);
4) ownership to immovable property is determined by legally set property, rent rights or rights to use;
5) immovable property may serve as wealth source for income generation (rent, sales).

The authors propose their definition for the term “immovable property” – “immovable property is land and immovable buildings and constructions attached to it, which relate with a person’s property rights or the rights to rent and use”.

After analysing economic and legal literature on the particular aspect, the authors provide a single definition for the term “immovable property tax”- “immovable property tax is a mandatory, unrequited payment provided for by the law and made by natural or legal entities into the budgets of local governments for land, buildings and constructions under property, use or rent with the aim to finance basic functions of local governments and ensure public needs”.

4. POSITIVE AND NEGATIVE ASPECTS OF IMMOVABLE PROPERTY TAX

After analysing research works and studies of different researchers on immovable property tax, the research authors conclude that immovable property as taxable item has several advantages and several earmarked positive aspects.

Professors in economics Arlo Woolery, Phillip Bryson, and Gary Cornia from the USA, for example, in their works display the following positive aspects of immovable property tax:

- immovable property is immobile (it is impossible to hide or displace immovable property, and to avoid payment of the tax);
- immovable property tax is stable (it ensures stable income independent of business cycle);
- immovable property tax is neutral (its imposition does not cause changes in the use of immovable property);
- existence of immovable property tax characterises the solvency of a taxpayer (ability to pay the tax duly);
immovable property is visible, it is impossible to hide it from the tax administration (Bryson, Cornia 2000);
payers of immovable property tax are easy to identify;
lower tax rates for newly constructed buildings and increased tax rates for hovels encourage construction of new buildings and renovation of the old ones;
increased tax rate for unfarmed land promotes territorial development and arrangement;
immovable property tax may serve as equaliser of tax burden;
revenues from immovable property tax are stable source for local governments to finance public services (schools, parks, roads etc.) (Woolery1989).

Professor Richard Almy, in turn, earmarks the following positive aspects of immovable property tax:

- immovable property tax promotes capital investments in business;
- immovable property tax is characterised by openness and transparency;
- immovable property tax does the least harm to the economic development (Almy 2001).

Unfortunately, the research works on immovable property tax done by several analysed scientists disclose few negative aspects of the mentioned tax.

Professor K.Ketners concludes in his studies that negative aspects of immovable property tax are related with the necessity to ascertain the aims for the usage of immovable property tax – social needs, charity, the only place of residence etc. According to several authors, these factors do not outline the negative aspects of immovable property tax but they are related with the complexity of tax administration (Ketners, Titova 2009).

Professor P.Guļāns regards that the contribution of immovable property tax to the consolidated revenues of the general government budget is relatively small; however, it significantly influences sustainable development process of the state. According to P.Guļāns, immovable property tax has the following negative aspects:

- in the sphere of production, it increases production costs, thus, weakening competitiveness of company products; it lessens the investors’ interest to establish production companies in Latvia and consequently hinders the growth of national economy;
- in the social sector, it decreases abilities and interest of population in self-provision with contemporary apartments; it hinders the formation of middle class and promotes emigration (Guļāns 2010).

The authors disagree with P.Guļāns’s arguments and consider that labour taxes are the ones, which hinder competitiveness and economic growth, and increase production costs and decrease the income of population. This is the problem of Latvia. Tax system in Latvia is mainly directed towards employment taxes, i.e. taxes that are paid by employees or their employers from wage payments, and not towards consumption or capital. Tax revenues of the central government in 2011 evidence the situation, where 52.9% of revenues are composed by employment taxes, while immovable property tax accounts for only 2.8% of the total tax revenues (Kopsavilkums par budžeta ieņēmumu ..., 2011). According to the research authors, the largest and most significant problem of Latvia is the bulky proportion of shadow economy, which amounted to 27.9% of GDP in 2011 (Schneider Fr., 2011) and exceeded the tax burden in 2010 (27.3% of GDP) (Government Finance Statistics 2011).
The OECD studies (2009) on the possible impact of the financial crisis on tax policy conclude that greater attention should be paid to the taxation of immovable property, since they do the least harm to the growth. Higher rates should be applied to taxes, which allow the least possibility of tax avoidance.

Therefore, the authors deem it necessary to take notice of Jens Matthias Arnold, an OECD researcher, paper “Do Tax Structures Affect Aggregate Economic Growth”, where he analysed the growth of OECD countries and compared it with tax types – item the tax emphasis is laid on. Depending on whether taxes are more imposed on property or consumption, or private income, he noticed that the development rates of countries differed and there existed a correlation: the more taxes are relatively levied on immovable property and less on private income, the faster developed economy in those countries. The difference is considerable, it is around 2% annually, and the difference in revenues of these countries, for example, after 10 or 20 years, may become extreme. Thereby, J.M.Arnolds emphasises that immovable property tax is probably the least harmful and the reason is twofold. If larger burden is placed on immovable property tax, it is eased somewhere else (Štucere 2012). The authors believe that the imposition of immovable property tax hinders the formation of immovable property “bubble”, which was a vital problem of Latvia.

According to the research authors, negative aspects of immovable property tax also include the factor that cadastral valuation of immovable property tax base may not be grounded only on real estate market information on the cases of expropriation, as they are affected by many additional factors – investment of cash of unknown origin, availability of loans, speculative transactions etc. The authors believe that the cadastral valuation should be based on classically recognised source of immovable property tax land rent or income gained from the usage of immovable property (rent) (Štucere 2010).

Negative aspects of immovable property tax also refer to the cases, when the progressive rate of immovable property tax increases very frequently right after a slight increase of the base. Hence, the rates lose the function of social protection and discourage the economic activity. However, if the immovable property tax rate changes only after a very large increase of the base, then it only covers a small part of wealthy people and loses its progressive character. Therefore, the authors believe that a large attention should be paid to the elaboration of progressive immovable property tax rates. It is very essential to calculate the ranges for one rate and the size of the following rate. The setting of the optimum rate requires precise calculations based on the breakdown of the society depending on the amount of income and wealth, and applying the average life expectancy, price, inflation, and other macroeconomic indicators.

After analysing positive and negative aspects of immovable property tax, the authors conclude that negative aspects of immovable property tax are mainly interrelated and they are impacted by the organisation processes of immovable property tax administration – setting of rate progressiveness, specifics for the determination of cadastral value, complexity of administration (determination of type of the property usage). Positive aspects of immovable property tax, in turn, more characterise the economic essence of immovable property tax itself; and it may be concluded that immovable property tax is more neutral towards the general economic system and it is most directly related with the territorial administration and socio-economic situation of an individual local government. Immovable property tax ensures stable revenues into the budgets of local governments, since immovable property tax items (land, buildings) are localised, relatively stable and explorable. It is impossible to hide them and avoid tax payment, which is an aspect especially significant in case of the shadow economy. Thereby, the authors believe that immovable property is one of the most stable taxable items.
5. CONCLUSIONS

1. The historical development of tax systems earmarks three stages, where each coming stage differs from the previous one with higher development level of tax administration and increase of tax significance in the state revenues.

2. Immovable property was one of the first taxable items in ancient stages of development. The tax was paid in the form of primitive payments (duties and donations) for the usage of property.

3. “Single tax theory” by F.Kenney and J. Locke, “Tax neutrality theory” by A.Smith and D.Ricardo, and studies on the application of rent theory and immovable property tax justified the necessity for immovable property tax and contributed to the development and application of immovable property tax.

4. After analysing economic and legal literature of different content, the authors provide a single definition for the term “immovable property tax” - “immovable property tax is a mandatory, unrequited payment provided for by the law and made by natural or legal entities into the budgets of local governments for land, buildings and constructions under property, usage or rent with the aim to finance basic functions of local governments and ensure public needs”.

5. Negative aspects of immovable property tax are mainly interrelated and they are impacted by the organisation processes of immovable property tax administration – setting of rate progressiveness, specifics for the determination of cadastral value, and complexity of administration (determination of type of the property usage).

6. The theoretical analysis of immovable property tax reveals the essence and positive aspects of immovable property tax. Positive aspects of immovable property tax more characterise the economic essence of immovable property tax itself; and it may be concluded that immovable property tax is more neutral towards the general economic system and it is most directly related with the territorial administration and socio-economic situation of an individual local government.

7. Immovable property tax ensures stable revenues into the budgets of local governments, since immovable property tax items (land, buildings) are localised, relatively stable, and explorable, and it is impossible to hide them and avoid tax payment.

8. The provided research verifies the set hypothesis that immovable property is one of the oldest and most stable taxable items.

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ACKNOWLEDGEMENT

Publication and dissemination of research results has been made due to the funding of the ERAF Project „Promotion of scientific activities of LLU”, Contract Nr. 2010/0198/2DP/2.1.1.2.0/10/APIA/VIAA/020
A DISTRICT CONSTRUCTION UNION MODEL
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Abstract
This proceeding presents a model improving the effectiveness of capital and labor power of commercial firms in construction industry at the district level.

The commercial firms operating at the district level have difficulties in extending their operations at the national and international level requiring large capital, high technology, and specialization due to i) having small capital, ii) not having certification of expertise, iii) having outdated know-how behind the current technological developments, iv) having difficulty to have expensive construction machinery equipments, v) having shortage of work and employment area, and vi) being unable to fulfill tender terms.

This study introduces a District Construction Union enabling firms take part operations at the national and international level requiring large capital, high technology, and specialization via setting up and organizing flexible construction teams in the view of dynamic, progressive, professional, inclusive, participatory understanding. The data on commercial firms in construction industry are taken from district Eregli of province Konya.

Key words: Construction, Union, Development,

1. INTRODUCTION
1.1. District, Province, Rural Development
In terms of civil administrative divisions in Turkey, district is the second settlement unit after province. There is more than one district in each province. The provincial capital also constitutes a district which is called the central district. The concept of central district is eliminated in metropolitan city centers.

Divisions of civil administration in Turkey are: 81 provinces, of which 16 have the status of metropolitan city, 892 districts and 634 townships. In terms of local governmental units, there are 81 provincial special administrations, 2951 municipalities, - of which 16 are metropolitan municipalities, 65 are provincial municipalities, 143 district municipalities of metropolitan cities, 749 are other district municipalities, 1978 are sub district municipalities and 34424 villages. The order of hierarchy of the central administrative units of the central government is as follows: prime ministry, ministries, general administrative boards of provinces, and general administrative boards of districts. Since district is the lowest level of central administrative units of the central government, it is taken as the lowest unit of city levels, and defined as ‘district-city’ in this study. The term district-city is used for all districts except for the ones located within metropolitan areas.

...
Cities are centers of gravity and density where the share of the population in industry and service sectors is higher than that of agriculture. In rural development, district cities, as the first level city centers in rural areas, should be taken into account as part of the rural areas in concern. The definition of rural area should also be updated as to include district cities where administrative, organizational, technical and social infrastructures are concentrated, and where agricultural products are made into industrial products, but any industrial activity which would pollute the rural area is prohibited. District cities should be considered as the core of rural development, thus all occupational activities within the administrative boundaries should be organized accordingly, and all the necessary measures should be taken to be more effective and efficient economically.

“In contemporary economies, corporate partnership is gaining importance in terms of increased competitiveness, reduced financing cost, improved the quality of labor and creation of scale economies. What makes the companies merge and unite and become long lasting businesses is the common cause and unified objective, in other words the partnership culture. Those companies who succeed in this become durable and strong, while the others who fail, unfortunately, become on the verge of vanishing”.

This paper focuses on district construction association model, based on the organization of occupational enterprises operating in construction sector in a district city. After reviewing the legal, political and operational means which would support the construction association, we will draw attention to the numbers, of those firms which win more than two tenders from the projects initiated by the Housing Development Administration of Turkey (TOKİ), and the cities they are registered to. In order to illustrate the assumption that small and medium sized enterprises cannot create scale economies, thus cannot expand their fields of operation or the volume of business, without the support of an association, the number of enterprises working in construction sector in Ereğli District of Konya province with their capital money and annual trading volume as provided by the chamber of commerce –industry and chamber of architects is presented. Later, based upon these justifications, fundamentals of the proposed construction association are introduced.

2. MEANS OF DISTRICT CONSTRUCTION ASSOCIATION MODEL

2.1. Means with Positive Effects on the District Construction Association

1- Article 14 of Job Definition of the Main Service Unit of the Directorate of Regional Development and Structural Adjustment of the Under secretariat of State Planning Organization lay the legal ground for the construction Association.

ARTICLE 14- The Directorate of Regional Development and Structural Adjustment: to undertake research and planning activities at province and district level, to ensure coherency of the works by the other government agencies and institutions with the Development Plans and Annual Programs, to develop projects to respond to problems arising from implementation of structural adjustment policies, and to coordinate activities in these areas, to develop policies within the framework of improving local employment and entrepreneurship to address the problems of small and medium sized enterprises, craftsmen and artisans, and that of rural areas, to issue an opinion on legal and institutional regulations,
to guide the implementation, to identify priority regions for development and their needs, to undertake
necessary works in order to ensure a rapid development taking into account of the characteristics of
these regions, to ensure coordination of projects related to regional development, to give opinion related
to issues of the area of responsibility, and to partake in contacts and negotiations with international
institutions.

2- Clauses (c) and (e) of the Job Definition of Development Agencies (KA) which could be called as
provincial organizations of the Under-secretariat of State Planning Organization (DPT) also provide
support for the construction association.

c) In accordance with regional plan and programs, to contribute to capacity enhancement with regard to
rural and local development of the region and to provide support to the projects within this scope.

e) In order to realize the regional development objectives, to improve coordination among public, private
and nongovernmental organizations.

3- When the definition of rural area in the National Rural Development Strategy (UKKS) of the DPT
includes district cities and the district cities are taken into consideration as part of rural areas, the
objectives and principles of the UKKS are in accord with district construction association.

Objective: In principle, based on utilizing local potential and resources, to improve in place working
and living conditions of rural society in line with the urban areas, and to make it sustainable. Public
services and supports will be planned holistically, cohesively and predictably and supplied for the
benefit of the rural society in accordance with the priorities oriented to the primary objective.

The principles: spatial sensitivity, cooperation and participation, sustainability, social inclusion,
cohesiveness in policy and regulations, effective monitoring, efficient resource utilization

4- The Holistic Urban Development Strategy and Action Plan (2010-2023) of the Urban Development
Strategy (KENTGES) of the Ministry of Public Works and Settlements, in which the course of action
for urbanization and public improvements is set forth, reflects the principles of the district construction
association.

The main axes of KENTGES are: Restructuring the spatial planning system, improving the spatial
conditions and quality of life of the settlements, strengthening the economic and social structure of the
settlements.

The following clauses from the Basic Values and Principles of the Sustainable Urbanization and
Settlements Action Plan provide a basis for the construction association model:

To pay regard to the ecological balance when utilizing natural resources; to protect the cultural heritage,
and to maintain and improve them; to insure equality in access to public services; to carry out economic,
social and cultural development at the local level; to conserve and promote local cultural values and
traditions; to develop and institutionalize methods of collaboration to achieve culture of cooperation and

8 “To comply with the development plans, rural areas defined as the areas outside urban settlements with a
population of 20 000 or more.”

“Works have begun to update the definition of rural area. Upon completion of these works the definition of rural
area will be updated, if required, and will be taken into consideration in implementation.”

solidarity; to base the services provided by local governments on the principles of transparency, accountability, collaboration and efficiency.

5- In the Cooperation and Coalition Support Program of the Small and Medium Sized Enterprises (KOBİ), the following clauses resonate with the district construction association model.

The Objective of the Program and the Justification: to produce “Common Solutions for Common Problems” by joining forces of the KOBİs under the framework of cooperation-coalition; to find solutions for many problems which the KOBİs have difficulty to address single handedly, including supply, marketing, low capacity usage, weak competitiveness, and finance; to bring together the KOBİs in a way to evolve them into enterprises with higher capacity and competitiveness; to provide savings through scale economies; and to develop culture of partnership and cooperation among KOBİs.

Cooperation-Coalition Partnership Models: Project partner enterprise becomes a party to an executive establishment while maintaining its own existences. Eligible Project Topics: to raising the quality of products and services, increasing the national and international market share, creating brand image, and co-marketing in order to respond to the needs of the international market.

6- “The Scale Indexed Growth Credit Support Program” of The Presidency of Development and Support of Small and Medium-sized Enterprises Administration (KOSGEB) of the Republic of Turkey, The Ministry of Industry and Trade lays ground for support to the construction association,

7- The application programs including business activities of TOKİ, and other public institutions provide support in terms of resources and employment for the construction association.

8- Skill’10 (Beceri 10) project, which is launched under the Specialized Vocational Training Centers (UMEM) to promote skill development and to provide employment on the ground that the most important causes of unemployment in Turkey are excess of unskilled labor, hardship in finding qualified personnel and “lack of profession” has the characteristics of serving the purpose of the district construction association in terms of increasing business skills of its members.

Objectives of UMEM Skill’10 Project:10

To develop a system to increase effectiveness and efficiency of the vocational training activities by ISKUR (Turkish Employment Agency), in particular those in technical areas, and to bring them in line with the needs of the labor market; to provide basic vocational training, career development and occupational retraining; providing internship placement for successful trainees, and ultimately providing employment for the interns; to renew technical infrastructure of vocational high schools, so that the schools under this project are equipped in accordance with the current technological advances, and the educators in these schools are trained as to increase compliance with evolving technology.

9- The fact that the Assembly of Small and Medium Sized Contractors have required11 sub-contractors that they “should be registered” has illustrated the need for the district construction association.

“The president of the Assembly of Small and Medium Sized Contractors of Turkey has acknowledged that there is documentation problem in payments made to the businesses listed under category of sub-contractors such as molders, blacksmiths, tile workers, thus these sub-contractors need to be registered

10 http://www.beceri10.org.tr/

11 TOBB 02.03.2011” http://www.kobi.org.tr
in order to solve this problem; and has asked that ways should be develop to issue first level certificate for the sub-contractors, and to have them registered.”

10- Since the inception of its implementation as of January 1st 2011, in all provinces\textsuperscript{12} the Building Inspection Law provides state support for the district construction association, increases its importance.

2.2. Means with Negative Effects on the District Construction Association

2.2.1- TOKӦ tender specifications\textsuperscript{13}:

Since the companies operating in construction sector within district boundaries fall short of firm scale, they fail to satisfy tender specifications, required documents, and assessment criteria (see Annex 1). Competition is essential in liberal economic system of democratic societies. And the economic activities are not legally restricted. Therefore, it is essential to fulfill the requirements of the economy. For this reason, it seems unlikely to create economies of scale in construction sector of districts with small settlement sizes, without creating a scale of type, and a scale of team among small sized companies operating in different business lines which are complementary to one another.

Considering information relating to Agency Housing Application, Housing + Social Amenities, Slum Conversion Projects, and Disaster Housing Tenders from the Tender Information Table of the Projects Initiated by the Turkish Housing Agency (TOKÖ), majority of the firms those who have won more than one tender are from Istanbul and Ankara (see Table 1). 27 of these firms who have competed for tenders come from the provinces, and only one, from a district. The number of tenders they have won, depending on the situation, ranges among 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 17, 19, 21, 29, and 39.

The following table, Table 1, is created based on information under the topics of Agency Housing Application, Housing + Social Amenities, Slum Conversion Projects, and Disaster Housing, of the Tender Table of the Projects Initiated by the Turkish Housing Agency (TOKÖ).

<table>
<thead>
<tr>
<th>Ankara</th>
<th>97</th>
<th>Mersin</th>
<th>2</th>
<th>Ağrı</th>
<th>1</th>
<th>Şırnak</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>İstanbul</td>
<td>49</td>
<td>Kocaeli</td>
<td>2</td>
<td>Bilecik</td>
<td>1</td>
<td>Trabzon</td>
<td>1</td>
</tr>
<tr>
<td>Malatya</td>
<td>7</td>
<td>Manisa</td>
<td>2</td>
<td>Erzurum</td>
<td>1</td>
<td>Tunceli</td>
<td>1</td>
</tr>
<tr>
<td>Adana</td>
<td>6</td>
<td>Bursa</td>
<td>2</td>
<td>İskenderun</td>
<td>1</td>
<td>Van</td>
<td>1</td>
</tr>
<tr>
<td>Gaziantep</td>
<td>6</td>
<td>Bingöl</td>
<td>2</td>
<td>K.Maraş</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Konya</td>
<td>5</td>
<td>İzmir</td>
<td>2</td>
<td>Muş</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kayseri</td>
<td>4</td>
<td>Hatay</td>
<td>2</td>
<td>Samsun</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siirt</td>
<td>3</td>
<td>Adıyaman</td>
<td>1</td>
<td>Ş.Urfa</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table1: Distribution of the numbers of firms who won more than two TOKÖ tenders to the provinces and districts

\textsuperscript{12} TOBB 02.03.2011” http://www.kobi.org.tr

\textsuperscript{13} http://www.toki.gov.tr/programlar/ihale/c_ilangoster.asp?id=1759
2.2.2. Konya Ereğli Construction Sector

2.2.2. 1. Konya Ereğli Construction Sector Firms

According to Konya-Ereğli Chamber of Commerce, there a total of 54 firms registered in construction sector, whose distribution in different lines of businesses, and in capital money are given below.

There are 37 builders making all kinds of resident buildings, 6 builders building non-resident type buildings, 20 architecture firms, 2 civil engineering firms, 1 firm providing hydraulic engineering and traffic engineering, 1 firm providing services of urban planning and landscape architecture, 1 firm installing utility systems in buildings and other construction projects, and 1 firm providing plasterwork.

There are a total of 19 mechanical engineers and natural gas installment firms with capital money ranging from 5000 to 500000 TL. (2 firms with 5000 TL, 2 firms with 10000 TL; 1 firm with 15000 TL; 1 firm with 200000 TL; 1 firm with 300000 TL; 2 firms with 400000 TL; 5 firms with 500000 TL; 2 firms with 1000000 TL; 3 firms with 1500000 TL; 1 firm with 1650000 TL; and 1 firm with 5000000 TL.) Out of the total of 5 electrical engineers, three has a capital of 50000 TL, one has 8000 TL, and the other has 4500 TL. While one the two existing ready mixed concrete suppliers has a capital of 4000 000 TL, the other has zero capital. There a total of 7 electricians (2 with a capital of 1000000 TL; 1 with 500000 TL; 1 with 100000 TL; 1 with 50000 TL; 1 with 40000 TL; and 1 with 400 TL). There are a total of 2 plumbers with a total capital of 30000 TL. Additionally, there are 3 excavators, 2 furniture doorframe carpenters, 7 PVC glass joinery workers, all of whom have no capital. There are also a total of 24 construction material suppliers, and a total of 6 furniture and cabinet manufacturers. As can be seen from these figures, capital of trades people’s operating in construction sector in Ereğli ranges from 0 to 4 000000 TL.

2.2.2. 2. Konya Ereğli Annual Construction Figures

As can be seen from the distribution of the total construction area over the years (see Table 2) there is a decrease in years 2001, 2006 and 2009, while in 2010 there is a 2.5 times increase, as compared to the respective previous years. This increase might be due to TOKİ housing projects. For instance, judging from the data of 2009, it could be concluded that the local construction companies were not able to obtain their fair share benefit. The local firms, who fail to make savings and accumulate capital are incapable of winning TOKİ tenders even in their own town.

2.2.3. TOKİ Applications

Among the projects commissioned by TOKİ in the immediate vicinity of Konya-Ereğli, the first Agency Residential Application Tender for the second phase of Halkapınar Housing which includes a total of 208 housing units with a price of 7.886.000 TL is taken by Avcılar Gıda San.Tic.Ltd.Şti. (Kocaeli).

In terms of Housing + Social Amenities Projects, a tender for Konya- Ereğli- Yellice application with a total value of 15.650.000 TL for 400 housing units + Social Amenities (business center, health care

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14 Calculation: If in 2009, an investment of 75000000 TL. Were to be made in 150000M2 construction areas with a cost of 500TL per unit, and a benefit of %20 out of this investment were made, a total of 15000000TL joint benefit could be gained. And then, this benefit could be allocated evenly to the 54 firms, which would result in 28 000TL annual benefit for each firm.

15 Konya-Halkapınar 2.Etap 208 konut Avcılar Gıda San.Tic.Ltd.Şti 7.886.000 208 %98
center, mosque) is won by Özekip İnş. San. Ve Tic. Ltd. Şti. & Hedef İnş. Tic. Ve San. Ltd. Şti. business partnership (İzmir).\(^{16}\)

TOKİ application is said not have brought any benefit to local firms, but on the contrary has inflicted a decrease in local construction activities.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Construction Area (M²)</th>
<th>Year</th>
<th>Total Construction Area (M²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>70.109</td>
<td>2006</td>
<td>116.027</td>
</tr>
<tr>
<td>2001</td>
<td>64.383</td>
<td>2007</td>
<td>172.648</td>
</tr>
<tr>
<td>2002</td>
<td>76.553</td>
<td>2008</td>
<td>171.111</td>
</tr>
<tr>
<td>2003</td>
<td>89.317</td>
<td>2009</td>
<td>135.244</td>
</tr>
<tr>
<td>2004</td>
<td>158.314</td>
<td>2010</td>
<td>329.743</td>
</tr>
<tr>
<td>2005</td>
<td>163.309</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Konya/Ereğli Chamber of Architects

Table 2: Konya Ereğli Annual Construction Area

2.2.4. Statistical classification of economic activities

National Association of Colleges and Employers (NACE) diversify construction activities under 56 topics\(^{17}\). It is becoming more important in district cities that the construction activities are carried out by firms with appropriate certificates under these classifications. It is possible that all of these business lines might not exist in districts. Then, the district construction association will be in need of collaboration with provincial, regional and national level construction associations to create construction teams by bringing together all lines of businesses necessitated by every level of construction activities in accordance with the Classification of Construction based on Architectural Services. The district construction association model is created to enable the construction sector, which is the driving force behind the development of district cities, which is the core of rural development, to take part in construction activities at interprovincial and international levels.\(^{3}\)

3. DISTRICT CONSTRUCTION ASSOCIATION MODEL (EREĞLI)

District construction Association is established in each district by participation of all commercial entities, government institutions and credit organizations operating in construction sector within the administrative boundaries of the district.

\(^{16}\) Konya Ereğli Yellice 400 Konut + sosyal donat  Özekip İnş. San. Ve Tic. Ltd. Şti. & Hedef İnş. 15.650.000  400  %100 ticaret merkezi, sağlık ocağı, mescit Tic. Ve San. Ltd. Şti. İş Ortaklığı www.toki.gov.tr Bağlantılı Projele A ihale Bilgi Tablosu

\(^{17}\) http://www.kto.org.tr/dosya/nace/gruplar.htm
3.1. Components of District Construction


2-Institutions who plan and apply the Construction [Members of District Construction Association]

3-Executive of Board of the Association [Chambers of trades, public institutions, financial organizations, member firms, university representatives]

4-Credit Organizations [Public (TOKİ, KOBİ, DPT etc.), Financing organizations]

2-Source of Revenue of the Association.[Membership fees, operating income, income share of construction work, and income from the funds.]

3.2. Vision of District Construction Association:

The objective of the local construction association, which creates, organizes and inspects dynamic, professional, formative, encompassing, participatory and flexible construction teams among
professional organizations operating in construction sector, who could undertake construction of buildings requiring high capital and technology, and expertise both at home and abroad, is as follows:

To develop plans at the settlement level which fit the local identity; to utilize, coordinate, improve and strengthen local labor; to improve cooperation among governments, professionals and nongovernmental organizations; to ensure that the constructions are of high quality and safety and are compatible with its environment; to make sure that for each phase of the construction in the settlement, the contractor in charge establishes the construction teams and allocate works to sub contractors in the sector in rotation; to plan, and to manage and inspect of the works and payment plans for the construction squads; to enable construction squads participate in inter provincial and international construction works; to increase efficiency of local labor force; to improve welfare of the society.

3.3. Mission of District Construction Association:

The mission of the district construction association: to coordinate the institutions of employment, planning and application of the construction, and to ensure the chambers of trades establish construction teams among their members and inspect their work; to make business contracts between employers and construction teams who are responsible for carrying out the work, and to inspect the application; to establish auto park for construction vehicles and to manage the use of construction vehicles; to raise district construction companies in terms of knowledge, finance and the level of participation.

3.4. Rules of District Construction Association:

- All institutions or persons in a settlement who own the construction which requires high capital and technology must cooperate with district construction association.
- The district construction association is a partner to the institutions and organizations of the local construction sector.
- All institutions and companies operating in construction sector will become a member of the association by simply registering to their respective chamber.
- Members buy stock shares from the association.
- Members can benefit from the rights by their prorate share.
- District construction association establishes Auto Park for construction vehicles and rent it to its members.
- The association establishes cooperation among settlements.
- The association pursues intra national and international construction tenders.
- It inspects its members’ compliance with the rules.
- It ensures that sub-entities comply with the rules.
- The councils of chambers serve in inspection of construction teams.
- It determines phases and costs of the construction activity, and payment plan.
- It collects money from the owner of the construction in accordance with the payment plan and renders payments to the members.
- It carries out cooperation with credit institutions if deemed appropriate.
3.4.1. Rules relevant to Construction Sector

- All institutions and companies operating in construction sector will register to the relevant chambers of trades and industry, or chambers of architects, landscape planners, urban planners, survey engineers, environmental engineers, etc.

- Each of the chambers constituted by all institutions and companies operating in construction sector, will establish construction team and assessment council with their members appointed in rotation.

- Each chamber is responsible for ensuring that their members have certificate qualification

- Upon becoming a member of the association, members of chambers can benefit from the opportunities of districts construction association.

3.4.2. Rules relevant to Municipality:

- All information about construction activities of all institutions within the boundaries of the settlements must be reported to the municipality

- After their registration at the municipality, the municipality directs the construction activities to local construction association

- The municipality ensures that all construction activities are in compliance with zoning plan.

3.4.3. Rules relevant to Chambers of Trades:

- District construction association reports to chambers of trades on construction activities, and they report to the councils of the chambers

- Each council of chamber determines which parts of construction activities are relevant to their chamber members

- Each chamber determines implementation phases of the construction activity which falls under its competence

- Each council of chamber appoints their members for each of the phase alternately. The appointments will be assessed based on work load of the construction activity at hand, the economic capacity of the member and its turn on rotation cycle.

- For each construction activity, a construction team will be established by the council with members appointed in through rotation.

- A joint building inspection squad established with building inspection members, each appointed by their respective chambers of trades, ensures that each phases of construction activity is properly carried out by the relevant team member, and inspect the process.

- The relevant councils determine local, environmental and site planning principles of the construction activity, and report to the district construction association.

- The district construction association notifies the municipality of planning related information in order to ensure compliance with the zoning plans.
4. RAISING HOUSEHOLD AWARENESS ABOUT DISTRICT CONSTRUCTION ASSOCIATION

It has a forward looking importance that households are educated about and included in accordance with their expectations into the district construction model.

The concept of households is a macro term encompassing both the employers and the employees, thus is particularly important for the development of the district and therefore the region. In order to raise household awareness, district governorate, municipality, chamber of trade and industry, and the other public and non-governmental institutions and associations should be in cooperation. Once it is established and transferred to the next generation, the model has an inter-temporal importance in terms of sustainability, economic development and opportunities provided for the next generation.

5. RESULT

District cities should be regarded as the core of rural development; and trade activities within district boundaries should be organized, and all necessary measurements should be taken to be efficient and effective economically.

The means that have positive effect on the district construction model should be in coordination at institutional level.

And the means that have negative effect on district construction model should be revised as part of institutional coordination so as to increase effectiveness of the model.

Those firms operating in district construction sector should be provided with information and technology support so as to create scale economies.

In order to ensure the sustainability of model, the relevant institutions and organizations should be made aware of the expectations of households in the districts.

In order to actualize the district construction model, all necessary political and implementation measures should be created.

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SOME CONSIDERATIONS REGARDING THE MANIFESTATION
OF THE SHADOW ECONOMY IN THE EUROPEAN UNION

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Abstract

In our paper we shall present some considerations on corruption and shadow economy, two phenomena which interact and are closely related. Taking into account statistics & international reports, we shall try to approach the phenomenon of shadow economy in the European Union and in each of its 27 member states. As a starting point we shall present information on Gross Domestic Product per capita as a European Union average and the level of each member state taking into account that this is a key reference indicator for the living standard of a certain stat. Furthermore we shall introduce data about the level of the shadow economy in the Gross Domestic Product as a European Union average and for each state member. In order to track down the losses from budgetary resources as a result of shadow economy manifestations, we shall consider the percentage of the fiscal pressure upon the Gross Domestic Product of each member state. The absolute value of the losses from budgetary resources in each member state is calculated by taking into account the national Gross Domestic Product, the percentage of the shadow economy in the Gross Domestic Product and the fiscal pressure. By cumulating the absolute value of losses from budgetary resources in each member state we shall obtain the total value of the losses caused by this phenomenon in the European Union. We consider that through the efforts performed by each European member state and the efficient collaboration between their fiscal organs, the shadow economy could by “seriously shaken” and as a result we might identify some positive changes in the formation of budgetary resources for each state and for the entire European Union.

Key words: Gross Domestic Product, shadow economy, financial resources, fiscal pressure, fiscal organs

INTRODUCTION

In order to efficiently fight against the shadow economy in the E.U. member states it is necessary to know what the shadow economy is, which are its parts and which is the importance of this phenomenon at the European level and then in which member state. The size of the shadow economy at the level of each country is reported as a percentage from the total value of the goods and services especially designed for final input, within a year, or in other words a percentage from Gross Domestic Product. The losses of state budgetary resources resulted from the manifestation of the shadow economy are given by the interaction of thee factors: Gross Domestic Product, the percentage of shadow economy in Gross Domestic Product and the fiscal pressure. In order to clearly understand the phenomenon of shadow economy all the three factors mentioned above have to refer to the same territory and the same period of time. By knowing the precise dimension of the shadow economy, each European state can adopt special measures through its fiscal organs in order to restrict the losses of fiscal resources generated by this phenomenon. At a European level the correct understanding of the size of shadow economy should generate a wider perspective on this phenomenon. This should also encourage
institutional cooperation and the exchange of information among member states in order to reduce this negative phenomenon and consequently increase the fiscal resources attracted to the budget of each state and to the European one too.

THE MANIFESTATION OF SHADOW ECONOMY IN THE EU

Corruption and shadow economy are two types of activities which have as a starting point the breaking of the social and economic rules by those performing such activities in order to gain an income that withdraws itself from a fiscal control performed by the institutions of the state. James Wolfensohn (2003), the president of The World Bank, stated that corruption: „is one of the greatest inhibiting forces to equitable development and to the combating of poverty. For many, it constitutes the difference between life and death“. Corruption is generally defined as the abuse of public power in someone’s best interest where the best interest is assimilated with receiving money or assets. According to another definition offered by Transparency International (2013) corruption is: „the abuse of public authority for private profit“. According to the Indicator of Corruption Perception (C.P.I.) realized by Transparency International (2012) is has been pointed out that Romania comes number 66 in the World with a 4.4 point level from a number of 176 countries under discussion. We have to mention that C.P.I is the indicator for the level of perceiving corruption in the public sector field, where ten is the mark given for a country that is not corrupted and 0 for one which is extremely corrupted. Among other European countries, according to the same nongovernmental organization in the year 2012 there are countries situated behind Romania on the above mentioned scale. We could mention here Italy with 4.2 points (position 72), Bulgaria with 4.1 points (position 75) and Greece with 3.6 points (position 94). At the top of this scale among the less corrupted countries in 2012 we find: Denmark, Finland, New Zeeland with 9 points each.

As far as the shadow economy is concerned T. Packard, J. Koellt, C. Montenegro (2012) stated that: „Few of the phenomena that occupy the time of governments, economists, and others in the business of crafting and executing policy are as ambiguously defined and as difficult to measure as the shadow economy“. Professor Friedrich Schneider from the University of Linz, when being asked: „What is the shadow economy“ mentions that the answer of this question depends on who is asking and which are his reasons. Consequently a finance ministry could ask how is possible for him to know which are some additional sources of taxation and where they can be found, while the labor mistery would ask the same question to get information on how to concentrate his efforts in order to ensure himself that the rights and rules of the labor market are respected” (2012, Packard, Koettl & Montenegro, In From the Shadow- Integrating Europe’s Informal Labor, The World Bank, International Bank for Reconstruction and Development, Washington ).

According to Friedrich Schneider (2008) the shadow economy comprizes the entire market based on the legal production of goods and services that deliberately hides itself from the public autorities for one ore several reasons:

- to avoid the payment of the profit taxe, the income tax, VAT tax or any other taxes;
- to avoid the payment of contributions for: social insurance, health insurance and unemployment insurance;
- to avoid the labor market rules regarding the minimum salary, the maximum number of working hours, safe standards, etc.
to avoid the administrative procedure concerning: the way in which to fill-in different forms and declarations regarding the number of employees and taxes which have to be paid to the fiscal organs;

According to Friedrich Schneider from the University of Linz some unofficially registered criminal activities such as thefts, drug dealing and the production realized by the unauthorized natural persons, are not to be considered in the calculation of shadow economy as a percentage from Gross Domestic Product. From F. Schneider’s (2010) perspective the every-day-life activities which fall under the incidence of the shadow economy are:

- the painter who accepted to sell his painting half price in order to avoid the payment of different taxes;
- a bar owner who accepts 5 Euro for a glass of wine and does not report his income to the authorities;
- a construction company that does not report to the government the sums of money given to a provider in order to avoid the legal standards, such as the minimum salary of safety rules.

To have a clear picture on the way of calculating the shadow economy we shall firstly refer to Gross Domestic Product per capita seen as a key factor in establishing the living standard of a certain state. From Figure 1 “Gross Domestic Product per capita in the UE member state in 2009” we see that the European country with the biggest Gross Domestic Product per capita is Luxembourg with 84.000 Euro, while the country with the smallest Gross Domestic Product per capita is Bulgaria with 4.800 Euro, immediately followed by Romania with 5.701 Euro. The European average of this indicator is situated around by 24.000 Euro. There are countries which have values above the European average with over 30.000 Euro: Denmark, Sweden, Netherlands, Ireland, Austria, Belgium and Germany. Values over the European average but lower than 30.000 Euro are to be found in countries like: France, Great Britain and Italy. For values smaller than the European average, but higher than 20.000 Euro we shall mention countries like: Spain, Cyprus and Greece. In countries like Slovenia, Portugal, Malta, The Czech Republic, Slovakia and Estonia this indicator is situated between 10.000-20.000 Euro. Taking into account that the average Gross Domestic Product per capital at the global level has an average value of approximately 7.000 Euro (Publications Office of the European Union, The EU in the world 2013-A statistical portrait, Luxembourg, 2012, page 9) we can observe that all the member states form the EU apart from Romania and Bulgaria reported values of this indicator which are over the global average. Lower values of this indicator, lower than in Romania, are registered in countries such as South Africa, China, Indonesia and India.

In 2009 according to the Figure nr.2 „The size of shadow economy in 2009 in the EU states (% from Gross Domestic Product)” we observe that Romania holds an „important position” with 32.6 % from Gross Domestic Product, being only surpassed by Bulgaria with 35.3 % from Gross Domestic Product. We see that the European average in measuring the shadow economy is 21.1 % from Gross Domestic Product. We also observe that two countries like Austria and Luxembourg registered under 10% from Gross Domestic Product and the only countries that have a shadow economy higher than 30% form Gross Domestic Product, except from Bulgaria and Romania, are Lithuania and Estonia. Percentages higher than the European average but smaller than 30 % from Gross Domestic Product are also identified in countries such as Latvia, Greece, Cyprus, Poland, Italy, Hungary, Portugal and Spain. In countries like Belgium, Sweden, The Czech Republic, Denmark, Finland, Germany, France, United Kingdom and Netherlands we see that there are percentages under the European average but bigger than 10% from Gross Domestic Product.
Figure 1 - Gross Domestic Product per capita in the UE member state in 2009 (Euro)

Source: personal interpretation of data from „A report for Group of the Progressive Alliance of Socialists & Democrats in the European Parliament by Richard Murphy FCA, Director, Tax Research UK“, p.10; the date referring to population have been assumed from http://epp.eurostat.ec.europa.eu, Table 1.2-Population at 1 January 2010

Figure 2 - The size of shadow economy in 2009 in the UE states (% from Gross Domestic Product)
Another indicator taken into consideration when calculating the costs of the losses caused by the manifestation of the shadow economy is the fiscal pressure defined by T. Moșteanu (1997) as being the proportions of income to which tax payer (natural or juridical persons) compulsory renounced in favor of the state under the form of taxes which have to be paid to the state budget, the budget of social state insurance, local budget and the special funds budget.

From Figure nr.3 “Fiscal pressure in 2009 in the UE member state (% from Gross Domestic Product) we see that the EU states with the highest fiscal pressure are Denmark and Sweden with over 45 %, while in Romania and Latvia the fiscal pressure is under 28%. The European average of this indicator is 35.9 % from Gross Domestic Product. A percentage higher than the European average and over 40 % from Gross Domestic Product is registered in countries like Belgium, Finland, Italy, Austria and France. In countries like Germany, Hungary, Netherlands, Slovenia and Luxembourg the registered values are over the European average but smaller than 40%. Portugal, Poland, Spain, Greece, United Kingdom and The Czech Republic have between 30-35 % from Gross Domestic Product. From the above mentioned data we see that although countries like Denmark, Finland, Sweden have a high fiscal pressure of over 43% from Gross Domestic Product, they still register a percentage of under 20 % from Gross Domestic Product when it comes to the shadow economy which brings us to the conclusion that they have efficient fiscal organs and their fiscal discipline is very strict. On the other hand in countries like Romania and Bulgaria although the fiscal pressure is reduced, under 30 % from Gross Domestic Product, the registered values of the shadow economy exceed 32 % from Gross Domestic Product, so that we can conclude that the fiscal organs are inefficient and the fiscal discipline is reduced. This consequently leads to massive losses which could be attracted to the state budget.

Figure nr.3 - Fiscal pressure in 2009 in the UE member state (% from Gross Domestic Product)
We can determine the absolute value of the loses of fiscal resources due to the shadow economy just by taking into account the information held by each EU member state regarding the value of the Gross Domestic Product, the percentage of the shadow economy in Gross Domestic Product and the fiscal pressure. The most frequently used formula by Richard Murphy, tax research director in The Great Britain is:

\[
FrL = G.D.P \times Se\% \times Fp\% 
\]

where:

- FrL = losses of fiscal resources as a manifestation of the shadow economy
- G.D.P. = Gross Domestic Product in its absolute value
- Se \% = the percentage held by the shadow economy in Gross Domestic Product
- Fp \% = fiscal pressure as a percentage in Gross Domestic Product

From Figure nr.4 “Total losses of fiscal resources caused by the shadow economy in 2009 in the EU member states” we observe that over 860 billion Euro are annually lost because of the shadow economy in the EU. The countries with the greatest losses are Italy with over 180 billion Euro, Germany with over 158 billion Euro and France with over 120 billion Euro. Countries like Luxembourg, Latvia and Malta have the most reduced losses from the EU due to the shadow economy with values under 1.5 billion Euro. Romania is situated in the middle of the chart, with an absolute value of over 10 billion Euro/year. Bulgaria’s losses of resources caused by the manifestation of shadow economy are estimated to approximately 4 billion Euro.

If we analyze the losses of fiscal resources caused by the shadow economy, as compared to the governmental debts of each member state, from Figure nr.5 “Deadline for paying the governmental debts”, we observe that all the debts of the EU member states up to 01.01.2010 could be paid within 8.8 years if the shadow economy was eradicated. Extended periods of time could be registered in Ireland with 21.3 years and United Kingdom with 18.3 years. More reduced periods of time as compare to the medium deadline could be registered in countries like Estonia (0.6 years) and Bulgaria (3.4 years). In Romania’s case if we hypothetically eliminated the shadow economy we would manage to pay the governmental debts which was accumulated up to 01.01.2010 within the period of 3.5 years.

According to the information held by the Public Finance Ministry in 2010, information which is also mentioned in “The Report of the General Department of Treasury and Public Debts”, Romania’s public governmental debts were of 147.4 billion lei (34.93 billion Euro at an exchange rate of 4.22 lei/Euro) in 31.12.2009. If we consider the information provided by Figure nr.4 “Total losses of fiscal resources due to the shadow economy in 2009 in the EU member states” we observe that in 2009 Romania lost 10.7 billion Euro because of the shadow economy. From the above mentioned correlations we deduce that Romania could pay its governmental debts (the one which was accumulated up to 01.01.2010) in a period of 3.3 years if it eliminated completely the losses from the shadow economy.
Figure nr.4 - Total losses of fiscal resources due to the shadow economy in 2009 in the EU member states

Source: personal interpretation of data from „A report for Group of the Progressive Alliance of Socialists & Democrats in the European Parliament by Richard Murphy FCA, Director, Tax Research UK”, 10 February 2012, pg.10-11

Figure nr.5 Deadline for paying the governmental debts (years)
If we consider the annual losses of resources caused by the manifestation of the shadow economy as a percentage in the annual deficit of each EU member state, according to the Figure nr.6 “Losses of taxes as a result of the shadow economy – percentage in deficit”, and if we also observe that the European average of the losses caused by the shadow economy in 2009 is estimated to 139% from 2010 deficit, than we understand that the European states shouldn’t have designed their state budget on deficit in 2010, if they had completely eliminated the losses from the shadow economy. In some countries like Denmark and Finland the annual losses from the shadow economy are three times bigger than the annual budgetary deficit. In other countries like Austria, France, Spain, Portugal, United Kingdom the annual losses from the shadow economy are smaller than the annual budgetary deficit.

<table>
<thead>
<tr>
<th>Country</th>
<th>Losses of taxes as a result of the shadow economy – percentage in deficit</th>
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<tbody>
<tr>
<td>Denmark</td>
<td>139%</td>
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<tr>
<td>Finland</td>
<td>132%</td>
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<tr>
<td>Malta</td>
<td>109%</td>
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<tr>
<td>Ireland</td>
<td>104%</td>
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<tr>
<td>Italy</td>
<td>103%</td>
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<tr>
<td>Belgium</td>
<td>103%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>99%</td>
</tr>
<tr>
<td>Latvia</td>
<td>93%</td>
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<tr>
<td>Lithuania</td>
<td>93%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>89%</td>
</tr>
<tr>
<td>Malta</td>
<td>88%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>79%</td>
</tr>
<tr>
<td>Austria</td>
<td>74%</td>
</tr>
<tr>
<td>France</td>
<td>66%</td>
</tr>
<tr>
<td>Germany</td>
<td>62%</td>
</tr>
<tr>
<td>Greece</td>
<td>14%</td>
</tr>
<tr>
<td>Portugal</td>
<td>0%</td>
</tr>
<tr>
<td>Spain</td>
<td>0%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0%</td>
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<tr>
<td>Ireland</td>
<td>0%</td>
</tr>
<tr>
<td>Estonia</td>
<td>0%</td>
</tr>
<tr>
<td>Sweden</td>
<td>0%</td>
</tr>
</tbody>
</table>

Figure nr.6 - Losses of taxes as a result of the shadow economy – percentage in deficit

Source: personal interpretation of data from „A report for Group of the Progressive Alliance of Socialists & Democrats in the European Parliament by Richard Murphy FCA, Director, Tax Research UK”, 10 February 2012, pg.13-14

When we refer to the evolution of the shadow economy as compared to the data for 2009 from Figure nr.7 “The estimation of shadow economy in 2011-percentage in Gross Domestic Product” we observe
that unlike the European average of 22.1 % from Gross Domestic Product, registered in 2009, the trendy is decreasing in 2011 so that the average of shadow economy, represented as a percentage in Gross Domestic Product, is reduced to 19.2 % which means a 3 % reduction. If we apply this percentage to the losses from the shadow economy at the level of 2009, estimated to the 860 billion Euro, this will increase the budget the EU member state with over 25 billion Euro. From Figure nr.7 we also observe that in Romania’s case the losses of the shadow economy are seen as decreasing, the level being under 30 % from Gross Domestic Product. Bulgaria is the only country with a percentage over 30 % from Gross Domestic Product.

In the European Union apart from the losses caused by fiscal fraud, estimated to 860 billion Euro per year, there are other losses which result from the process of avoiding taxes, these losses being estimated to over 150 billion Euro/year. All the European member state lose almost 1.000 billion Euro per year because of fiscal fraud and tax avoidance. The fiscal fraud is defined by R. Murfy (2012) in the report of the Group of the Progressive Alliance of Socialists & Democrats as the unpayment of fiscal obligations or their underevaluation as a result of filling in false declarations, or the artificial growth of expenses for the legally declared incomes. Taxe avoidance is defined as being the action of minimising tax payment without prmeditated intention but against the spirit of law by exploiting certain flaws of the fiscal legislation. The British lawyer, Templeman (2001), stated: “A tax avoidance scheme includes...
one or more interlinked steps which have no commercial purpose except for the avoidance of tax otherwise payable, and can conveniently be described as artificial steps. A tax avoidance scheme does not leave the taxpayer any better or worse off but leaves the Revenue worse off”. Referring to the fiscal fraud and the strategy for tax avoidance we need to mention that these have a variety of forms within each member state or among the member states. Here are some situations referring to strategy of tax avoidance and fiscal fraud:

- they can be found in the same transaction for different taxes and different places;
- these strategies often have minute directions along which we encounter natural persons, companies, trusts, foundations and charity organisations;
- these strategies are complex and they imply following the route of the money in order to establish who is the beneficiary and the money’s destination;
- the transactions which are performed across the borders of a member state diminish the transparency of the transactions and the chance to identify the taxes and pay them;

CONCLUSIONS

As a general conclusion of the present paper we appreciate that as a consequence of the free circulation of persons and of the opening of goods, financial and banking-markets, the economy of the EU member states has developed very much. The negative effect of this development is given by the losses of fiscal resources to the national budget and the European budget because of the shadow economy phenomenon. As we have observed, each member state has its own shadow economy, but in some European countries such as Romania, the percentage of the shadow economy has alarmingly increased to almost 30 % in Gross Domestic Product. This requires serious measures to reduce this percentage. Each European member state has its own measures to fight against shadow economy but apart from this, common efforts are required from the part of all the European states in order to diminish the shadow economy phenomenon and consequently reduce the losses of fiscal resources. It is required an efficient cooperation between the fiscal organs from all the European member state for a quick exchange of information. This cooperation can imply the movement of the representative of the fiscal organs from one state to another or it can allow their access to different data base from another member state. The efficiency of this cooperation will have a positive effect in the creation of resources to the budget of each member state and to the European budget to by taking into account that over 75 % from the European budget funds come from the percentage in Gross Domestic Product of each European member state.

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FINANCING OF DENTAL HEALTHCARE IN BULGARIA FOR THE PERIOD 1998-2013

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Abstract

Financial changes have significant role in healthcare reform. In EU countries the cost of dentistry amount from 3% to 13% of total health expenditure. In Bulgaria, for dental care are provided 4.7% from the budget of National Health Insurance Fund (NHIF) for 2013.

Aim: The aim of this study is to investigate the financial politics of dental healthcare in Bulgaria for the period of 15 years. All financial resources spent on dental healthcare were studied out.

Material and methods: A documentary method is used to achieve the aim of this study. We studied the National Framework Agreement and data from the Financial Supervision Commission (FSC).

Results and discussion: There have been several changes in the packages, offered by NHIF, during the investigated period. From 2002 financing of dental healthcare has been supplemented by VHIF.

Conclusion: Health of the citizens of a country is an important component of national wealth and essential prerequisite for the advancement of the nation. It is both a human right and justified financial investment.

Key words: dental healthcare, financing, NHIF, VHIF

INTRODUCTION

Reform of the healthcare system requires the implementation of structural and financial reform. Structural reform of healthcare is to eliminate existing shortcomings and to create a basis for development. Financial changes aim to introduce economical mechanisms for self-regulation, to rationalize costs and to achieve increased funding for healthcare.

In Bulgaria, dental diseases comprise a large number of the population. They are cumulative, progressive and don’t have the ability for self-healing. Over time, any untreated dental disease has its complications, which further hamper not only the treatment process, but also the restoration of dental health. They are an important public health problem because of their prevalence and impact on individuals and society, and also because of the high cost of their treatment. In some countries, dental diseases are in fourth place of the most expensive disease to treat (Sheiham, 2005). In EU countries the cost of dentistry amount from 3% to 13% of total health expenditure (Widstrom & Eaton, 2004). In Bulgaria, for dental care are provided 4.7% from the budget of National Health Insurance Fund (NHIF) for 2013.

AIM:
The purpose of this paper is to trace the financing of dental care for over 15 years, and to show the changes in the methods and sources of funding.
MATERIAL AND METHODS:
A retrospective study is made for a period of 15 years (from 1998 to 2013). The object of observation is financing of dental care in the Republic of Bulgaria. A documentary method is used to achieve the aim of this study. We studied the following legislation: National Framework Agreement, the terms of contract with the NHIF providers of primary and specialized dental care, packages and general conditions of certain companies for voluntary health insurance. The market for voluntary health insurance for each year is analyzed from data of the Financial Supervision Commission (FSC). We used mathematical and statistical methods for the analysis and comparison of quantitative variables, and graphical analysis to visualize the observed phenomena and processes and illustrate certain relationships and dependencies.

RESULTS AND DISCUSSION:
In Bulgaria was introduced budgeting after 1944. This was a government-run health system financed by general tax revenues. A centralized state funding was created under the soviet model "Semashko", which existed more than 30 years. The management of this monopolistic health care system and health care facilities run by state employees. The countries of Central and Eastern Europe were also affected by this type of financing.

With the adoption of the Health Insurance Act in 1998 in Bulgaria was introduced compulsory health insurance for all citizens. NHIF is created and has began operations on March 15, 1999. Its main task is to implement and administer compulsory health insurance in Bulgaria in the section of management of collected funds and payment of used health services and medications in a specific range and volume for the benefit of persons with health insurance.

The main changes that have been made are:

- Change in ownership of medical institutions by public state and municipal property into private state and municipal property. They have become participants in the market and created opportunities to get their own income from the practice of medicine;
- Privatization of outpatient and specialized medical care - it is intended to provide quality medical and dental care;
- Construction of the institution "General practitioner" (GP) - they have ownership of the practice in which they operate. As a result, there is a direct correlation with income, ability and capability of these general practitioners.
- Changes in the sources of financing of health care - from 1 July 2000, all outpatient care, including dentistry, is funded by the NHIF.
- Changes in patterns of paying medical institutions – this is regulated by the NFA between NHIF and the professional organizations.

NHIF activities aimed to improve health outcomes and quality of life, to adjust and improve of the social, health and economic efficiency of healthcare spending, to improve quality of services and equity in their use, to establish mechanisms for decent pay for medical specialists and positive change in the relationship between doctor and patient.
Accessibility to medical care is a basic requirement of the European systems of social health insurance. Within the coverage of the NHIS package dental services all citizens have equal rights of access to medical care. The principle of solidarity provides for the reallocation of funds from contributions from health to the sick, from the rich to the poor, from the young to the elderly.

From 1 July 2000, all outpatient care, including dentistry, is funded by the NHIF. For the period 2000 - 2013 there are several changes to the proposed package for dentists which are mainly from the financial point of view, the agreed prices - total contract value, the amount paid by the health insurance, and the cost paid by health insured.

Fig. 1 shows the means allocated to dental care in years, in millions leva. As can be seen from the figure allocations for 2003 are only 49 million. Over the years, this amount is increased and reached 106.5 millions leva for 2013.

![Fig. 1, Separation of NHIF for dental care for the period 2003-2013, in millions lv](image)

Indeed it is undisputed that there was an increase in funding by the National Health Insurance Fund. According to the Bulgarian Dental Association there should be spending close to 110 million lev per year for five years, in order not to worsen the dental health of the population.

Interesting is the fact that only 40% of Bulgarians use insured packages dental treatment by NHIF. What would happen if this rate increases and how then NHIF budget will last?

It’s difficult for patients to learn how to take care of their own health. Additional factor withdrawal from dental offices is the co-payment for each activity. Most of the patients believe that after having continuous health insurance they do not have to pay anything. There is quite a debate on whether co-payment is a good or bad approach, but it is widely used in health policy. The main reason is that it is considered an important component of the market approach in healthcare that stimulates the performance of individual responsibility. Surcharge in health is a powerful tool to maintain the level of health spending in periods of low and negative economical growth. Thanks to the introduction of cost-sharing system in healthcare is increased the transparency and some unauthorized payments are replaced with regulated ones. So patients can better and most importantly will be able to follow-up dental
activities, which they have already used. In Bulgaria, some colleagues do not charge their patients in order to attract more patients. They believe that the income by NHIF will increase in time. But on the other hand, this is an expression of disloyalty. In all countries of the European Union the system of cost sharing by the various government insurance funds cover and recover different percentage or amount of the treatment according to the different categories of the population - children under 18, people with low incomes, pensioners, the chronically ill, the disabled and others.

With the amendment of the Health Insurance Act of 2002 to authorize the establishment of companies for voluntary health insurance (VHI) without restriction on their number. The main social role of Voluntary health insurance fund (VHIF) is to meet these health needs of the population which are not satisfied with the compulsory health insurance.

VHIF is established on the principle of self-financing. The category of insured persons (organizations) are formed by free choice (voluntary) between existing VHIF in the country. In terms of competition, meeting the health needs of VHIF requires maximum possible quality of healthcare services, affordable price for the insured and minimum expenditure of time for patients.

The mission of VHIF affects not only broad medical, social, humane and ethical interactions, but also and an economic impact for consumers, their families and the professional field to which they belong.

VHI market is still small and unstable. To a large extent it is determined by several large corporative customers. Moving such a client from one company to another substantially alters market position and financial results against other players.

<table>
<thead>
<tr>
<th>Table 1 Market share of the package &quot;Dental Services&quot; for each VHIF *</th>
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<tbody>
<tr>
<td>1. (BHIF &quot;Zakrila&quot; AD) &quot;Generali Zakrila Health Insurance&quot; AD</td>
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<tr>
<td>2. (HIF &quot;Bulstrad Health&quot; AD) “TBI Health Insurance” AD</td>
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<td>3. (&quot;HIAD DZI&quot; AD) “DZI- Health Insurance” AD</td>
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<tr>
<td>4. (&quot;St. Nikolay Chudotvoretz&quot; Ltd) &quot;Euroins - Health Insurance” Ltd</td>
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<td>5. HIC &quot;Vseotdainost&quot; AD</td>
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<td>6. &quot;HIC Bulgaria Health” AD</td>
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<td>7. &quot;Municipal Health Insurance Fund&quot; AD</td>
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<td>8. &quot;HIC CCB” Ltd</td>
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<td>9. HIF „Vice Medika” AD</td>
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<td>10. &quot;HIF Medico- 21” AD</td>
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<td>11. „HIC Prime Health” AD (HIC”Fi Health” AD)</td>
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<td>12. &quot;Health Insurance Institute” AD</td>
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</tbody>
</table>

*Data from FSC
Table 1 shows the distribution of market share of the package "dental services" for each VHIF for the period 2004-2011. Although voluntary health insurance started in 2002, only two VHIF have licensed a "dental services" package in 2004. One of them - "Zakrila" AD has a monopoly market share (96%). For the investigated period of 15 years its market share decreased significantly and reached 29.7% in 2011. This is not at the expense of volume health insurance premiums, but because of the expense of market expansion and involvement of new VHIF. In recent years, it appears that “Euroins - Health Insurance” Ltd has a good market share growth of 1% in 2006 to 16.7% in 2011. A similar situation is at “DZI-Health Insurance” AD (7% market share in 2007 and in 2011 is 16%), also for “HIC Bulgaria Health” AD (2008 – 6.8% and 2011 – 19.6 %). At the end of 2012 there are 11 companies that distribute their market share on dental healthcare. For all the other companies, there is less visible increase in market share.

Fig 2. shows the paid benefits of the package “Dental services” for ten VHIF in leva. The data are from FSC for 2012.

The increase in health insurance payments over the years in parallel with rising health insurance premiums clearly shows actual voluntary health insurance. It is these actual costs enable us to see that the health insurance funds have their place in the market for health services in the country. Figure 3 shows the paid benefits of the package "dental services" for all the investigated VHIF from 2005 to 2012.
For the investigated period total paid benefits of the package “Dental services” are from 802042 to 1878322 levs. Maximum values are reached in 2007 - 1878322 levs. But with the onset of the economical crisis marked the lowest paid benefits in 2009 (just over 800000 levs). Over the last three years (2010, 2011 and 2012) observed an increase in 2012 to just over 1 million levs.

Overall health insurance market is formed as a dynamic market of health services. It increased every year with strong growth rates, which can be seen from the annual increase of the country's total premium income. But on the background of total health expenditure in Bulgaria VHI is symbolic - applied to the NHIF budget it is only 1%.

It is necessary to assess the potential and opportunities for managing the growing substantial financial resources of VHI. HIF managers fail to implement successfully increased sales of their services, although unequal competition with NHIF (currently the monopoly of NHIF is guaranteed by HIA). HIF thanks to the skills of management teams not only remain stable in the market for health services, but also develop this market, which is evidence of higher efficiency (cost - benefit) of the resources they manage. They combine the logic of manager with logic of medic. These are people who have the skills to manage resources, not only to allocate them. There should be form a new generation of leaders, a new type of management culture that are able to meet the challenges of the new era with a new approach, a new style and a new way of thinking that will lead to better health financing.

At the present stage voluntary health insurance remains an alternative source of funding for dental healthcare and health services. There is a weak trend of the sector, driven by unfavorable market conditions - supply and lack of active demand, established monopoly of the NHIF, lower household income and a lack of willingness among consumers to take a step forward to improve their own health.

Voluntary health insurance has a huge potential, which, if there is political will, can be realized for the benefit of the health system and society in Bulgaria and will increase health indicators for the nation, and the level of health security.
Another major way to finance dental care is a **direct payment** from consumers. It is widespread, especially after 1989. The consumers (patients) pay a part or all of their own income for the use of dental services. The positive features of this type of funding is that it strengthens market terms, improves competition, promotes quality of dental services are provided additional funding for health and promote individual responsibility and care for patients’ own health and wellbeing. Unfortunately, dental services are costly and burdensome nature of their payment by the patient can lead to barriers in accessing dental care. In developed countries, the proportion of direct payment does not exceed 20% of total health expenditure, while in developing countries reached 50%.

**IMPLICATIONS**

- Dental health of the population is not satisfactory and there is no consistent trend for improvement. According to the **Bulgarian Dental Association** there should be spending close to 110 million leva per year for five years, in order not to worsen the dental health of the population.

- The monopoly of NHIF is now guaranteed by HIA, which does not provide conditions, rules and regulations to create a competitive environment.

- Financing of dental health does not meet the needs of the population, although the rise of health insurance contribution (from 6% to 8% in 2009). The majority of patients (over 18 years) who are in need of dental treatment could not use dental packages, offered by NHIF, because they are just basic - a checkup and two treatment activities (treatment of caries and/or tooth extraction).

- Voluntary health insurance has a huge potential, which, if there is political will, can be realized for the benefit of the health system and society in Bulgaria and will increase health indicators for the nation, and the level of health security.

- A very high proportion of the costs for the population (direct payments are over 40 %) from total healthcare costs, while in the EU is 20-30%.

**CONCLUSION**

Everyone knows about the prevalence of dental diseases among the population. But it seems that dentistry has always been considered as the periphery of the system of public health. It is important to show the fact that dentistry is completely on a free market. Insufficient amount of funds for dental care has led to increased negative trends in the dental health of all age groups, objectively impossible to use high quality dental materials and modern techniques in dentistry and complete denial of dental services to some parts of the population.

Health is defined as the most precious good in the White Paper of the European Commission, dated 23.10.2007. Health of the citizens of a country is an important component of national wealth and essential prerequisite for the advancement of the nation. The link health and economic development is bidirectional. Good health leads to higher productivity, greater interest in making investments, **which** are important conditions for increasing the economic welfare of the population. This means that health care costs should be seen as a justified financial investment not only in the health and human capital, but also in the economic growth of the community.
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EVALUATION OF COMPETITIVENESS OF LATVIA’S SMALL AND MEDIUM-SIZED FURNITURE MANUFACTURING ENTERPRISES

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Abstracts

Nowadays competitiveness is an essential factor for both a country and its enterprises in the process of dealing with changing market conditions. Each market player has its own goals. Competitiveness is the ability to implement one’s relative advantages. The only question remaining open is – what are these relative advantages or disadvantages, which reveal some aspect of competitiveness of one company over another. The small and medium-sized enterprises (SMEs) play an important role in the development of the national economy and its sectors. The internal factors influencing the competitiveness of SMEs are connected with the products, manufacturing of products, financial situation, management and marketing activities. The competitiveness level of Latvia’s SMEs in the furniture manufacturing has been evaluated as average in 70 % of cases. Only 27% of the enterprises show good level of competitiveness. Thus, it is possible for the SMEs in furniture manufacturing to increase their and the whole sectors’ level of competitiveness.

Key words: SME, furniture manufacturing, evaluation of competitiveness, Latvia

INTRODUCTION

More and more often emphasis is laid on each country’s and its enterprises’ competitiveness, overcoming the negative market conditions. Overall, in various theories competitiveness is dividend into two research subjects - the competitiveness, which is evaluated at the national level, and the other one is the competitiveness evaluated at the enterprise’s or products’ level. Basing on the above mentioned division, the strategies for increasing competitiveness are chosen.

Competitiveness depends not only on macroeconomic changes or nature resources but also on the ability to reach high productivity, using such existing assets as human resources, capital and physical assets. It is difficult to raise competitiveness at the macroeconomic level if the sector of enterprises is poorly developed (United, 2005). The research and publications of the world leading scientist in the field of competitiveness M. Porter have proved that it is necessary to carry out reasonable policy at the macroeconomic level, thus increasing economic productivity, along with improvements at the microeconomic level. The competitiveness of an enterprise is the ability to sustain the market position, rendering quality products on time and at a competitive price, reacting flexibly and fast to changes in the demand and differentiating the end product, thus creating an innovative capacity and effective marketing system (Altenburg, Hillebran & Meyer-Stamer, 1998). The explanation of the concept “competitiveness” implies that the essence of it is revealed through its elements or influencing factors. For instance, the elements of competitiveness could be lower production costs, currency rate, technological development or economic growth, whereas the economic variable or productivity, the
investment amount, salary, or level of education, etc. are mentioned as influencing factors. Much more common definitions which emphasize the fact that competitiveness is the ability of subjects (i.e. enterprises, countries) or objects (i.e. products or services) to reach one particular position where the advantages or disadvantages of the subject or object are shown. Both in the global and local market each player has particular interests and goals, the achievements of which reflect the the player’s competitiveness. However, the most important thing is that competitiveness is the ability to carry out one’s relative advantages. Only one question remains open – which are the advantages or disadvantages which reveal the advantages of one subject’s competitiveness over another’s. The advantages of competitiveness have been discussed in the works of many authors from whom the following authors should be distinguished: (Henderson, 1983), (Porter, 1985), (Coyne, 1986), (Barney, 1991), (Peteraf, 1993), (Sanchez & Heene, 1997), (De Wit & Meyer, 1994), (Johnson D.W. et al, 1981) and (Ketels, 1999).

The age of old classical theories when the competitiveness opportunities of the states, sectors and businesses were determined by such factors as land, workforce and nature resources is gone, since nowadays more and more powerful impact is provided by new theories, because they focus on the improvement of each individual’s living standard in the society. As a result of this improvement, economy on the whole is improved (Porter, 1998). There are different determining factors of competitiveness which vary with a country, sector and business by the degree of importance. Therefore the real and most significant advantages of competitiveness should be found in order to act in long – term.

The market is constantly changing, thus making it difficult for enterprises to position themselves and find a way to differ from the competitors (Fikss, 2009). Many enterprises develop successfully, meeting the market demands However, it is not a key to long-term success. If an enterprise does not follow and respond to the changes in the external environment, a moment can come when other competitors become stronger in satisfying customers needs on a higher level. When the advantages of competitiveness are lost, the enterprise has to leave the market (Caune, 2009). The factors of competitiveness and their listing or division usually differ slightly among different authors, taking into consideration both the sphere of activity and the state. The most difficult task is measuring competitiveness. It is determined by different values, indicators or features which can be found, which are available, or which cannot be found, but which are available, or which are difficult to determine, but which are identifiable at the corporative level. Thus, the revenue, export, profit, market share, productivity, technical standards, corporate value, goodwill practice, image, customer satisfaction, product and service value should be measured (Kadosca, 2006).

The enterprises are the driving force of economy, therefore the policy makers of each country should promote the investment of essential funding in creating beneficial types of businesses (Nordea, 2011). The economic theories frequently describe the experiences of businesses from different countries and periods, not giving one definite answer to the question – why one enterprise is more competitive in comparison with another, since it is important to be aware of the fact that the competitiveness of enterprises is influenced by definite factors and combinations of these factors, which depend on other factors (Nordea, 2011). SMEs, undoubtedly, play a significant role in the development of the national economy of a state. Small enterprises can be characterised as ”dynamic elements”, which are able to combine entrepreneurship with economic growth. Small enterprises have several strategic advantages – mainly regarding their flexibility and sustainable competitiveness. Small enterprises are those which can structurally adapt themselves and respond to the new changes and market conditions (Bennet & McCoshan, 1993). Entrepreneurship is combining of management and skills, which allows small enterprises to react faster to structural and economic changes. Thanks to flexibility or the ability to adapt
in the new global economy, small enterprises gain benefit from the rapid technological advancement and new processes of competitiveness (Matlay, 2000, 2001). The 21st century’s challenge for the SMEs is global competitiveness, which means that the customers need to be provided with consistent and reliable products and services which have a recognized quality. SMEs are able to cope with global problems, if they are aware of reliable, balanced and high standard activities in their business (Kadocska, 2006). The enterprises must constantly try to increase their competitiveness, and each SME has to find its advantages in competition, incorporating them into the long-term strategies of the advantages of the enterprise’s competitiveness. Various sources of literature exist on the evaluation of competitiveness. There are also different competitiveness evaluation methods. Porter’s five forces competition model, SWOT analysis and competitiveness indices should be mentioned as examples of the methods. However, they are not suitable to all the countries, sectors and businesses, since the efficiency of each particular method should be matched with a definite situation, in certain cases applying even one single method or a combination of methods.

It should also be noted that the world’s economy is becoming more open to free trade. As a result, wood processing and furniture manufacturing industry sectors of the EU and its member states are forced to compete with the new market economy countries, where the the costs are low, thus paying greater attention to the activities with higher added value and which has usually been its advantage in the competition with the new market economy countries. The issue of the choice of the policy to be pursued in order to balance out the needs of wood processing, furniture and energy sectors should be considered among the EU member states, since all member states need one raw material – wood. Otherwise it may happen that many enterprises, mainly SMEs will be forced to stop their activities.

In the furniture manufacturing sector the products are manufactured from different raw materials – wood and wood material panels (engineered wood), metal, plastic materials, textile products, leather and glass. There are a wide range of furniture (e.g. chairs, tables, sofas, closets, kitchen furniture, etc.) with a variety of applications (e.g. in homes, schools, offices, etc.) (Tunkele, Mārciņš & Domkins, 2011). Nowadays the EU furniture manufacturing sector is characterised by a high level quality of manufacturing regarding technologies, aesthetics and fashion. It has a sustaining and stable position throughout the world ((Eiropas..., 2011). In 2009 there were about 124 000 enterprises involved in the EU furniture sector, employing 1.08 mil.workers, accounting for 0.6 % and 0.8 % from the EU total number. The highest EU furniture value is created in different home, dining room, living room children’s and other furniture manufacturing sectors, i.e. approximately 56.8 % from the total manufactured furniture added value in the EU. Thus, in this sector 65.6 % are employed (LR Zemkopības..., 2012). According to the data summarised by Eurostat, the EU furniture sector export value in 2010 was ~ 8 billion lats and import value was almost 10 billion lats, reaching the highest export value in the last five years.

Micro enterprises prevail in this sector (in 86 % of EU furniture manufacturing enterprises fewer than 10 workers are employed), but among them there are also some macro enterprises. Small enterprises often function as subenterprises of bigger companies manufacturing, for example, separate parts, blanks, forms and templates, which are used in the production and assembling the furniture end product. Wooden furniture for bedrooms, dining rooms, living rooms and other premises along with plastic and metal furniture prevail among the goods produced in the EU (38 % from the total amount of furniture manufacturing). Other significant manufacturing subsectors are seat manufacturing and office furniture manufacturing (29 % and 17 % respectively), as well as kitchen furniture (12 %) (Eiropas..., 2011). Over the years, responding to the pressure created by competition, especially at the international level, furniture manufacturing enterprises have started long-lasting restructuring and modernisation activities and the production volume has decreased. From the year 2005 the production volume increased slightly,
but in the year 2008, this positive trend stopped and the production volume shrank again. The major factors promoting competitiveness are research and innovation, skills and quality, design and AV, knowledge and practical skills and also a better access to the third world countries’ markets (Eiropas..., 2011).

The role of the furniture sector in the national economy of Latvia is most often reflected in the information regarding the employment in the sector, turnover, added value, foreign trade and the products manufactured. In 2010 the number of people employed in the furniture sector was 33 thousand. About 5,600 from them were employed directly in furniture manufacturing. Concerning the evaluation of the forest sector’s subsector, the number of people employed in furniture manufacturing is the smallest, compared to wood and its products manufacturing, forestry and forest harvesting. But this is a sector which has a high potential for creating high value. The proportional changes in the product value in 2010 compared to the previous year show that there was a 4% decline in furniture manufacturing. Overall the product value had decreased since 2007. In 2010 the forest sector of Latvia accounted for 4.7% of the added value (AV) proportion in Latvia’s GDP. Its proportion in the distribution by subsectors shows that in 2010 furniture manufacturing contributed 0.49% of the added value proportion to Latvia’s GDP. Furniture manufacturing in Latvia’s forest sector and GDP structure accounts for the proportion which is less than 1% and over the period from 2005 to 2010 there was a downward trend compared to Latvia’s forest sector as a whole. Overall in the forest sector in 2010, compared to 2007, the proportion of the AV in manufacturing industry increased. Moreover, in terms of absolute figures, it exceeded the level of 2007. It testifies that the sector had successfully recovered from the consequences of the economic crisis. The sector of Latvia’s forest is a sector of high export potential, since its production in 2010 accounted for about 20% of the total commodities’ export. According to the data of the Central Statistical Bureau of Latvia, the forest sector occupies third place among the most prospective exporting sectors after machine building, metal working and the food industry. The forest sector is the only sector of the economy with a positive import and export balance. In 2010 the value of the exported production reached historically the second highest indicator – 1,446 million EUR.

Analysing the furniture production export of 2010, it should be concluded that compared to the previous year, a slight increase was observed. Also in the year 2011 there was an increase of 10% in furniture manufacturing compared to the previous period. The furniture import volume in 2011 also witnessed a positive increase. Analysing Latvia’s furniture sector, it can be concluded that it is wooden furniture manufacturing that accounts for the greatest turnover and largest export volume. Although after the crisis the activities in the sector declined, the last two years showed improvement in terms of turnover and export volume. However, their contribution to the forest sector and the countries’ economy had decreased. It should be remembered that the furniture sector is able to produce a product with high added value. The author explains it by the fact that the subsectors of the forest sector e.g. forest harvesting, forestry and those of wood and wood products manufacturing obtain a greater support from the state – both in terms of finances and the sectors’ lobbyism at the governmental level.

MATERIALS AND METHODS

To achieve the aims set in the research, first the method of document analysis was used, which is an empirical social research method. In the evaluation of the competitiveness of an enterprise, determination and selection of the decisive factors play an important role, therefore within the framework of the document analysis the author chose those factors for determination of the decisive factors which were the best, the most accurate and most significant, at the same time embracing the minimal number of factors which is sufficient for the analysis. Having studied the division of competitiveness factors both
from foreign and local authors’ works, it is possible to group them into two big groups – external and internal factors. At the same time it is possible to assert that SME external environment factor is connected with the policy implemented by the state in the functional spheres. The internal factors influencing competitiveness of SMEs are connected with products, manufacturing, financial situation, management and marketing activities. Determining the importance of factors influencing competitiveness of SMEs, the experts’ method will be used in its evaluation. In the evaluation of the importance of the factors influencing competitiveness of the enterprises, the pair – wise comparison can be used, basing on the method offered by the experts. The pair-wise comparison matrix and its influence’s relative weight determination algorithm is shown in Table 1.

Table 1

The pair-wise comparison matrix and its influence’s relative weight determination algorithm by the experts

<table>
<thead>
<tr>
<th>Factors</th>
<th>F₁</th>
<th>F₂</th>
<th>…</th>
<th>Fₙ</th>
<th>Determining the number of factors, Fₑk</th>
<th>Importance of factor coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>F₁</td>
<td>1</td>
<td>F₁₂</td>
<td>…</td>
<td>F₁ₙ</td>
<td>i₁</td>
<td>α₁ = i₁ / Iᵦ₀</td>
</tr>
<tr>
<td>F₂</td>
<td>1</td>
<td>F₂₁</td>
<td>…</td>
<td>F₂ₙ</td>
<td>i₂</td>
<td>α₂ = i₂ / Iᵦ₀</td>
</tr>
<tr>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Fₙ</td>
<td>1</td>
<td>Fₙ₁</td>
<td>…</td>
<td>1</td>
<td>iₙ</td>
<td>αₙ = iₙ / Iᵦ₀</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
<td>Iᵦ₀ = ∑ᵦ₀ iₙ</td>
</tr>
</tbody>
</table>

It is important to take into account an important condition, that the factors and subcriteria of SMEs should be clearly defined according to the content. They also have to be measurable, they have to convey information on the current situation. They have to be flexible for changes and encourage the entrepreneur to be active, and simultaneously they have to be measurable in time. In total 5 factors and 42 criteria were identified.

The factors influencing the competitiveness in the furniture sector are described as follows:

F₁ – indicator showing the products’ (services’) competitiveness of an enterprise;
F₂ – indicator of an enterprise’s financial situation;
F₃ - indicator showing the effectiveness of an enterprise’s marketing, sales and management;
F₄ – index showing the competitiveness of a company’s production;
F₅ – external environment indicators.
The relative importance of factors is determined by comparing the factors in pairs, assigning the relative significance level from 1 to 9, where the value 1 is assigned when both factors have equal importance, but 9 if the prevalence of one factor over another is very strong. It is also possible to assign relative significance intensity intermediate units as 2, 4, 6 and 8, using them in the cases of compromise. After obtaining the relative significance of the factors and normalisation of criteria, the competitiveness function of SMEs in the furniture sector is made. The level of competitiveness for the SME model with 5 groups influencing groups of factors is expressed with the formula (1):

$$MU_k = \left( \frac{\alpha_1 F_1 + \alpha_2 F_2 + \alpha_3 F_3 + \alpha_4 F_4 + \alpha_5 F_5}{\alpha_1 F_{\text{max}} + \alpha_2 F_{\text{max}} + \alpha_3 F_{\text{max}} + \alpha_4 F_{\text{max}} + \alpha_5 F_{\text{max}}} \right) \times 100$$  

(1)

where

- $MU_k$ – level of competitiveness for furniture industry SME (percentage);
- $\alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$ - importance of factor coefficients;
- $F_1$ – factor of an enterprise’s product (services);
- $F_2$ – factor of an enterprise’s financial situation;
- $F_3$ - factor of an enterprise’s marketing, sales and management;
- $F_4$ – factor of a company’s production;
- $F_5$ – external environment factors.

To determine the level of competitiveness for SMEs in a particular field, concrete evaluation values are used, which are shown in Table 2.

<table>
<thead>
<tr>
<th>Level of competitiveness</th>
<th>Evaluation values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very low competitiveness</td>
<td>Less than 10.0% of the maximum of total factor value the reporting period</td>
</tr>
<tr>
<td>Low competitiveness</td>
<td>From 10.1 % to 30.0 % of the maximum value of total factor value the reporting period</td>
</tr>
<tr>
<td>Middle competitiveness</td>
<td>From 30.1 % to 50.0 % of the maximum value of total factor value the reporting period</td>
</tr>
<tr>
<td>Good competitiveness</td>
<td>From 50.1 % to 70.0 % of the maximum value of total factor value the reporting period</td>
</tr>
<tr>
<td>High competitiveness</td>
<td>From 70.1 % to 90.0 % of the maximum value of total factor value the reporting period</td>
</tr>
<tr>
<td>Very high competitiveness</td>
<td>More than 90.1 % of the maximum of total factor value the reporting period</td>
</tr>
</tbody>
</table>

The development of the competitiveness model for SMEs in the furniture sector was made so that it could show the positive and negative aspects of the development of an enterprise, its effectiveness and allow to evaluate the problems which have to be solved in order to promote its growth and development. The competitiveness factors of SMEs should be clearly defined by the content, they have to be
measurable, they have to present information on the existing situation. They must also be elaborated to be flexible to changes and they should encourage the entrepreneurs to be active. At the same time they have to be measurable in time.

RESULTS AND DISCUSSIONS

Basing on the analysis of the author’s documents on the competitiveness and the factors influencing it, the scheme of the factors influencing competitiveness for SMEs in the furniture sector was developed. This scheme is shown in Figure 1.

![Diagram showing factors affecting competitiveness for furniture industry SMEs]

Fig. 1 Factors influencing competitiveness for furniture industry SME, scheme

Owing to the research of the factors influencing competitiveness, it is possible to develop a model which will include internal and external factors influencing the competitiveness of small and medium-sized furniture enterprises and the facilitation of competitiveness. (Figure 2). Thanks to the model it was possible to clearly see the interrelations between the internal and external environments and their influence on the performance of the enterprise. The most important external factors influencing competitiveness of an enterprise are forest policy, tax policy, crediting policy, innovation policy, investment policy, social environment, infrastructure development, demographic situation, industry policy and educational policy.

The second group of factors are internal factors which are directly dependent on the performance of a particular enterprise and are able to influence them. According to the results from researching the internal factors of competitiveness, the major significant factors in the group of small and medium-sized furniture enterprises is the competitiveness of products, management effectiveness, financial condition, marketing and sales effectiveness and production competitiveness.
Analysing these factors it is possible to better understand the spheres in which measures have to be taken to increase the competitiveness of an enterprise. As a result of interaction between the above mentioned two factors, products are manufactured and offered to the existing consumers in the market, gaining profit in the long run (in the worst case losses) The author considers that it is not purposeful to fully determine all the factors influencing the enterprise since too large of a number of factors, which should be taken into consideration, can cause a situation, when the necessary amount of data (information) and mathematical processing are too time-and labour-consuming, thus encumbering practical possibilities of mathematical methods.

Fig. 2 The competitiveness model for furniture industry SME

According to the developed methodology for obtaining the results, using the experts method, the coefficients of significance of factors determining competitiveness of SMEs in furniture manufacturing
were obtained (Table 3). For further reflection of information content the introduced descriptions of factor and criteria will be used.

<table>
<thead>
<tr>
<th>Symbol of factor</th>
<th>Factors</th>
<th>Importance of factor coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>F₁</td>
<td>Product competitiveness</td>
<td>0,26</td>
</tr>
<tr>
<td>F₂</td>
<td>Financial situation</td>
<td>0,17</td>
</tr>
<tr>
<td>F₃</td>
<td>Marketing, sales and management</td>
<td>0,24</td>
</tr>
<tr>
<td>F₄</td>
<td>Production competitiveness</td>
<td>0,22</td>
</tr>
<tr>
<td>F₅</td>
<td>External environmental</td>
<td>0,11</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td><strong>1,0</strong></td>
</tr>
</tbody>
</table>

Table 3

Significance of factors determining competitiveness of SMEs in furniture manufacturing

The evaluation of the product’s competitiveness is very important for the increase of the total competitiveness of a enterprise. By calculating the value of the product’s competitiveness, it is possible to determine the ability of the product to satisfy the current demand. When the evaluation of the production is carried out it is necessary to evaluate not only the characteristics of the product consumption, but also its price. One of the most essential factors of competitiveness is the availability and effective use of financial resources (Pissarides, 1999, Bechetti & Trovatto, 2000), and thanks to the obtained value, it is possible to determine the financial stability of the enterprise. The sales market i.e., local or foreign market of a product and the associated marketing sales and management activities, is an important factor of the competitiveness of an enterprise (Ibeh, 2003). Marketing, sales and management competitiveness factor allows to show how effectively an enterprise carries out marketing and management strategies. The management of an enterprise, its competence in particular, as well as the decisions made, play an important role in the increase of competitiveness (Alvare & Busenitz, 2001, Tunkele, Mārsniņš & Domkins, 2011). Having carried out the analysis of the documents, the author acknowledges the importance of a definite manufacturing competitiveness factor, since the quality of the manufactured product depends on it, i.e., how flexibly an enterprise can optimize the production corresponding to the changes in demand and the question on whether the technological level of production is oriented to long-term activity.

Evaluating the most important part of the competitiveness factors, it follows that the level of competitiveness of more than two thirds (70%) of respondents has to be evaluated as average and only in 27% of cases this level has been evaluated as good. In 3% of cases the level of competitiveness has been evaluated as low (Figure 3).
As can be seen in Figure 3, none of the respondents has received a very low or very high evaluation of competitiveness. Thus it may be concluded that the competitiveness of SMEs is not so weak, but, unfortunately, their potential has not been used to full capacity. This is proved by the downward trend in the statistics of furniture industry after the economic crisis until the years 2010 and 2011, which was a rather hard period for the furniture sector. This period is a proof to the fact that the competitiveness of furniture enterprises should be strengthened. The most important factors promoting competitiveness should be identified as well, sometimes in this way revealing the factors hindering competitiveness.

CONCLUSIONS

1. The method of competitiveness evaluation helps identify the strengths and weaknesses of an enterprise, therefore by regular evaluation of competitiveness it is possible to systematically analyse the factors hindering development e.g., - weak competitiveness of a product, poor financial condition, low marketing, sales and management activity as well as the total competitiveness formation.

2. From the evaluations obtained with the experts method it should be concluded that the most significant factors increasing competitiveness for furniture manufacturing SMEs are product competitiveness, then marketing, sales and management competitiveness, and the third most significant factor is production competitiveness.

3. The competitiveness evaluation method allows to carry out the comparative competitiveness analysis for the whole furniture manufacturing sector and timely identify the challenges common for the whole sector.

4. The competitiveness level of Latvia’s furniture production SMEs in 70% of cases is evaluated as average. Only in 27% of cases the competitiveness is considered to be good and in 3% of cases the competitiveness is low.
ACKNOWLEDGMENTS

The paper has been supported by the European Social Fund within the project „Support for the implementation of doctoral studies at the Latvia University of Agriculture” (sub-activity 1.1.2.1.2 Support for the implementation of doctoral studies), agreement No 2009/0180/1DP/1.1.2.1.2/09/PIIA/VIAA/017, contract No 04.4-08/EPF2.D2.30.

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CORPORATE SOCIAL RESPONSIBILITY VERSUS CORPORATE SOCIAL IRRESPONSIBILITY

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Abstract

In the last decades, corporate social responsibility has become one of the main subjects in the business literature. The social responsibility of organizations represents one of the key drivers of sustainable development in the twenty-first century. Our paper seeks to provide a better understanding of the importance of the corporate social responsibility concept in a society dominated more and more by corporate greed and corruption. The aims of our paper are to present the theoretical foundations of the corporate social responsibility concept, and to highlight the difference between corporate social responsibility and corporate social irresponsibility.

Key words: corporate social responsibility, corporate social irresponsibility, society, business organizations, sustainable development

1. INTRODUCTION

Significant changes throughout the world have affected human life and have profoundly transformed the human society. The last decades has shown that numerous social, economic, technological, political, and environmental changes have led to the emergence of an array of problems such as poverty, weather-related catastrophes, increase in all sorts of diseases, global warming or poor access to healthcare.

Since the end of the Second World War, a voracious use of resources has been accompanied by “increasing discrepancies in resource consumption and welfare between industrial and developing countries” (Chichilnisky, 1997, p. 467). Moreover, the intensity of the economic activity has reached levels that alter the planet’s life. That is why sustainable development has become one of the prominent challenges of this century.

Sustainable development represents “the development that meets the needs of the present without compromising the ability of future generations to meet their own needs“ (World Commission on Environment and Development, 1987, p. 8). Also, sustainable development is about “integrating the goals of a high quality of life, health and prosperity with social justice and maintaining the earth’s capacity to support life in all its diversity” (ISO 26000- Clause 2.23, 2010). In this respect, “the single most important institution for generating incentives compatible with sustainable development is the rule of law, which at its most basic level means that the same laws apply to everyone – the governed and the governing alike” as „the rule of law is the best guarantee against corruption” (Civil Society Coalition on Climate Change, 2007, p. 9).

Sustainable development and social responsibility are not only two of the most debated subjects in the business literature, but also two interrelated concepts. The social responsibility of organizations constitutes one of the key drivers of sustainable development in the twenty-first century. On the one
hand, sustainable development expresses the broader needs of society (e.g. economic, environmental) as a whole. On the other hand, “organizations find themselves frequently on the defensive in today’s socially aware environment, being criticized for some actions they have taken or failed to take” (Sims, 2003, p. 3). The social responsibility of organizations shows the way organizations contribute to the welfare of the society within they act. By balancing their various objectives with the needs of the society many business organizations have become socially responsible and, therefore, have implemented the corporate social responsibility (CSR) concept in their activities.

Our paper seeks to provide a better understanding of the importance of the CSR concept in a society dominated more and more by corporate greed and corruption. The aims of our paper are to present the theoretical foundations of the CSR concept, and to highlight the difference between CSR and corporate social irresponsibility.

The paper is structured as follows. The second chapter of the paper is dealing with the definitions and characteristics of the CSR concept, emphasizing some of the main contributions derived from the literature. The significance of the CSR concept in contrast with corporate social irresponsibility is presented in the third chapter. The paper ends with conclusions.

2. WHAT IS CORPORATE SOCIAL RESPONSIBILITY?

The concept of ‘social responsibility of organizations’ gained prominence in the business literature in the 1930s. In the beginning, T. J. Kreps used the term “social audit” for measuring the social involvement of companies. On his turn, C. Barnard demonstrated that the management of durable organizations is based on morality. Later, P. F. Drucker considered that the modern corporation is a complex organization and emphasized that the essence of the corporation is social.

The modern era of CSR comprises four main evolving phases (Lawrence and Weber, 2008). During each of them, CSR has had distinct features (Table 1).

<table>
<thead>
<tr>
<th>Type</th>
<th>Period</th>
<th>Phase</th>
<th>CSR Drivers</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR1</td>
<td>1950s-1960s</td>
<td>Corporate Social Stewardship</td>
<td>Executive conscience</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Corporate philanthropy</td>
<td>Company image/reputation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Managers as public trustee</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Balancing social pressures</td>
<td></td>
</tr>
<tr>
<td>CSR2</td>
<td>1960s-1970s</td>
<td>Corporate Social Responsiveness</td>
<td>Social unrest/protest</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Social-impact analysis</td>
<td>Repeated corporate misbehavior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Strategic priority for social response</td>
<td>Public policy/government regulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Organizational redesign and training for responsiveness</td>
<td>Stakeholder pressure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Stakeholder mapping and implementation</td>
<td>Think-tank policy papers</td>
</tr>
</tbody>
</table>
In essence, the first type of CSR was the creation of H. R. Bowen in the 1950s. He stated that the social responsibility of corporations constitutes a way of integrating the societal values beyond the interests of its shareholders. In his opinion, social responsibility in business refers to “the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (Bowen, 1953, p. 6).

In the last decade of the past century, A. B. Carroll identifies four components of CSR (Fig. 1): ethical, economic, legal, and discretionary (philanthropic). In other words, the social responsibility of business comprises “the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point of time” (Carroll and Buchholtz, 2012, p. 34).

<table>
<thead>
<tr>
<th>CSR3</th>
<th>1980s-1990s</th>
<th>Corporate/Business Ethics</th>
<th>Religious/ethnic beliefs</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Foster an ethical corporate culture</td>
<td>Technology-driven value changes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Establish an ethical organizational climate</td>
<td>Human rights pressures</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Recognize common ethical principles</td>
<td>Code of ethics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ethics committee/officer/audits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ethics training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stakeholder negotiations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CSR4</th>
<th>1990s-2000s</th>
<th>Corporate/Global Citizenship</th>
<th>Global economic trade/investment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>• Stakeholder partnerships</td>
<td>High-tech communication networks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Integrate financial, social, and environmental performance</td>
<td>Geo-political shifts/competition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identify globalization impacts</td>
<td>Ecological awareness/concern</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Sustainability of company and environment</td>
<td>NGO pressures</td>
</tr>
</tbody>
</table>

Source: Lawrence and Weber, 2008

Figure 1. The components of CSR.
Due to the fact that the theoretical framework for the CSR concept has changed during its evolution, there are still some difficulties in defining CSR in an analytically rigorous way. However, the business literature available in respect of the CSR concept is voluminous (Whitehouse, 2006). CSR can be defined as:

- “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (Commission of the European Communities, 2006, p. 2).
- “a commitment to improve community well-being through discretionary business practices and contributions of corporate resources” (Kotler and Lee, 2005, p. 3).
- “a cluster concept which overlaps with such concepts as business ethics, corporate philanthropy, corporate citizenship, sustainability, and environmental responsibility…a dynamic and contestable concept that is embedded in each social, political, economic and institutional context” (Matten and Moon, 2004, p. 4).

All these definitions show that the CSR concept is rather an elusive concept because it has multiple dimensions. In spite of this heterogeneity in CSR definitions, the following six core characteristics are evident (Crane, Matten and Spence, 2008):

- voluntary;
- internalizing or managing externalities;
- multiple stakeholder orientation;
- alignment of social and economic responsibilities;
- practices and values;
- beyond philanthropy.

These key features led to the idea that CSR varies according to organizational and national context and has to be ingrained in the ethos of every business.

3. CORPORATE SOCIAL RESPONSIBILITY AND CORPORATE SOCIAL IRRESPONSIBILITY

Today’s business organizations increasingly confront various issues that carry environmental, social or ethical implications as a result from a stronger relationship between business and society. That is why the CSR concept has continued to grow in importance in a global society highly influenced by corporate greed and corruption.

CSR reflects not only the strengths, but also the weaknesses of the market capitalism. On the one hand, “it promotes social and environmental innovation by business, prompting many firms to adopt new policies, strategies, and products, many of which create social benefits and some of which even boost profits by reducing costs, creating new markets, or improving employee morale”, and, on the other hand, “precisely because CSR is voluntary and market-driven, companies will engage in CSR only to the extent that it makes business sense for them to do so” (Vogel, 2005, pp. 3-4).

Like individuals, business organizations are not so eager to exhibit consistent moral or social behavior. This statement implies that companies have to have an incentive to become socially responsible
organizations. By integrating CSR in their operations and strategies, business organizations benefit by several advantages such as:

- “Increased sales and market share.
- Strengthened brand positioning.
- Enhanced corporate image and clout.
- Increased ability to attract, motivate, and retain employees.
- Decreased operating costs.
- Increased appeal to investors and financial analysts.” (Kotler and Lee, 2005, pp. 10-11)

But, CSR has an antonym, namely corporate social irresponsibility. There are so many companies that do not act in a responsible manner. Corporate social irresponsibility represents “a set of actions that increases externalized costs and/or promotes distributional conflicts” (Kotchen and Moon, 2011, p. 2) and occurs “when the strategic management of stakeholders does not remain responsibility-neutral practice but becomes an immoral practice based on the deception and manipulation of stakeholders” (Greenwood, 2007, p. 324).

There is a distinction between two forms of corporate social irresponsibility: intentional and unintentional. Intentional corporate social irresponsibility implies that “corporations deliberately perform actions that disadvantage and/or harm others” (e.g. bribery, tax evasion) and unintentional reflects that “the (potential) disadvantages and/or harm to others are not inflicted deliberately by a corporation” (e.g. unfortunate events) (Lin-Hi and Muller, 2013, p. 1932).

Some authors state that CSR and corporate social irresponsibility are the two ends of a continuum (Jones, Bowd, and Trench, 2009). Moreover, the contrast between CSR and corporate social irresponsibility is not so evident in areas such as ethics or environmental responsibility (Table 2).

<table>
<thead>
<tr>
<th>CSR</th>
<th>Corporate social irresponsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental degradation and pollution are not inevitable and should not be tolerated, and it is important to raise awareness and commit to action.</td>
<td>Environmental degradation and pollution are inevitable and little precaution is taken.</td>
</tr>
<tr>
<td>Employees are a resource to be valued.</td>
<td>Employees are a resource to be exploited.</td>
</tr>
<tr>
<td>Maximize community consultation and involvement.</td>
<td>Minimal community consultation and involvement.</td>
</tr>
</tbody>
</table>

Source: Murphy and Schlegelmilch, 2013

In essence, CSR and corporate social irresponsibility are two connected concepts. Both concepts are likely to shape the perceived CSR (pCSR) because “responsible behavior increases pCSR, while irresponsible behavior decreases pCSR” (Lin-Hi and Muller, 2013, p. 1933).
4. CONCLUSIONS
The concept CSR is one of the most debated subjects in the business literature. As one of the key drivers of sustainable development, CSR allows companies to implement a balanced approach regarding their economic, social and environmental issues.

Our paper has demonstrated that the CSR concept has become a priority for many business organizations since the last decades. Also, our paper has shown that CSR and corporate social irresponsibility are not always in contrast. There are areas in which the contrast is apparent. However, CSR is essentially a concept whereby organizations decide voluntarily to contribute to the well-being of the society within they act.

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MULTIPLE INTELLIGENCES IN THE BUSINESS ENVIRONMENT
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Abstract

The present paper aims to highlight the need for changing the uniform education into an individualised one, providing equal opportunities to each student in order to reach their goals. It is necessary to understand the importance of our students’ evolutions they will become our future. Howard Gardner’s theory on multiple intelligences provides both the base and the support to do so. Programs such as CSOL-UB, SPHERE-AA, as well as the TeamWork association, represent illustrative examples of how the theory can be transformed into practice and how they can help in the development of the educational system.

Key words: intelligence, theory of multiple intelligences, individual, educational system, business environment

1. INTRODUCTION

Intelligence, as defined in DEX ’98 (The Explanatory Dictionary of the Romanian Language, Edition 1998), represents the ability to understand easily and well, to seize what is essential, to solve situations or new problems based on previously gained experience.

The concept of intelligence is present in literature since ancient times, being first recorded in Cicero’s writings, and its definition has been changed over time.

Greeks appreciated men endowed with physical agility, a rational judgment and virtuous behaviour, Romans emphasized courage, and the Chinese stood out by the abilities they had in various fields such as poetry, music, calligraphy and drawing, all these features being considered evidence of intelligence.

In traditional schools, an intelligent individual was the one who had extensive knowledge of mathematics, who could speak several foreign languages, who was a genius in physics, chemistry or astronomy.

In the 19th century, Francis Galton, one of the founders of the psychometrics (the science of measuring mental faculties), developed the idea according to which intelligence can be transmitted through genetic lines. Thus, the first tests to measure the ability of an individual emerge and the psychologists of that time become increasingly interested in finding ways to define and measure intelligence.

Today, in our minds, the term of intelligence becomes immediately similar to the term of IQ, which represents the intellectual potential of an individual that can be measured through a simple test; the IQ does not define the field in which the individual excels.

In psychology, intelligence appears both as a real fact and as a potential one, both as a process and as a skill or ability, both in form and attribute of mental and behavioural organisation (Paul Popescu - Neveanu, Psychology Dictionary).
2. MULTIPLE INTELLIGENCES

In 1983, Howard Gardener, a professor at the Harvard University, developed the theory of multiple intelligences based on the results obtained from the researches conducted by Francis Galton and other great psychologists. He suggested the fact that traditional methods of testing the human intellect based on IQ are limited as they show only the individual's ability to acquire information, but do not emphasize its nature.

He also makes two very strong claims. The first claim points out that all people regardless of colour, race, nationality or education, have all these types of intelligence. The second claim shows how different we are from each other. We look different, we have different personality and temperament, and therefore we exhibit different profiles of intelligence profiles too. Not even two identical twins have the exact profile of intelligence, as each individual undergo different experiences and also and also seek to distinguish their profiles from one another.

To identify these types of intelligences, Howard Gardner established a set of criteria:

- The subject should be seen in relative isolation or should be an autistic savant or stroke victim. In other words, certain individuals should demonstrate particularly high or low levels of a particular capacity in contrast to other capacities.
- The subject should have a distinct neural representation; the subject’s neural structure and way of functioning should be distinguishable from that of other major human faculties.
- The subject should have a distinct developmental trajectory. That is, different intelligences should develop at different rates and along paths which are distinctive.
- The subject should have some basis in evolutionary biology. In other words, an individual ought to have a previous instantiation in primate or other species and a survival capacity.
- The subject should be susceptible to capture information in symbol systems, to sort and use the information in formal or informal education.
- The subject should participate in psychometric tests of intelligence.
- The subject should be distinguishable from other intelligences through experimental psychological tasks.
- A core, information-processing system should be demonstrated. There should be identifiable mental processes that handle individually each type of information.

Based on these criteria, Howard Gardner managed to identify nine types of intelligence:
1. The linguistic intelligence involves the ability to understand a spoken and written language, the ability to learn foreign languages. This type of intelligence includes the ability to effectively use language to express oneself rhetorically or poetically, and language as a means to remember information. Writers, poets, lawyers and speakers are among those that Howard Gardner sees as having high linguistic intelligence.

2. The logical-mathematical intelligence consists of the capacity to analyze problems logically, carry out mathematical operations, and investigate issues scientifically. In Howard Gardner's view, this type of intelligence entails the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking. This intelligence is specific to engineering sciences, individuals who are good at physics, mathematics, chemistry, logic, economics and other exact sciences.

3. The spatial intelligence involves the potential to recognize and use the patterns of wide space and more confined areas. These types of intelligence include mental imagery, spatial reasoning, and dynamic thinking. Architects, constructors, painters, plane pilots or race cars pilots, they all exhibit this type of intelligence.

4. The bodily-kinaesthetic intelligence entails the potential of using one's whole body or parts of the body to solve problems. It is the ability to use mental abilities to coordinate bodily movements.
Howard Gardner sees mental and physical activity as being related. Generally, this type of intelligence is specific to athletes, dancers, ballet dancers, surgeons, those individuals whose jobs require the smoothness of movements.

5. The musical intelligence involves skill in the performance, composition, and appreciation of musical patterns. It encompasses the capacity to recognize and compose musical pitches, tones, and rhythms. According to Howard Gardner, musical intelligence runs in an almost structural parallel to linguistic intelligence. This type of intelligence is specific to artists, composers, vocalists, and instrumentalists.

6. The interpersonal intelligence is concerned with the capacity to understand the intentions, motivations and desires of other people. It allows people to work effectively with others. Educators, salespeople, religious and political leaders, as well as counsellors, all need a well-developed interpersonal intelligence.

7. The intrapersonal intelligence entails the capacity to understand oneself, to appreciate one’s feelings, fears and motivations. It is evident in psychologists, doctors from various fields of medicine.

8. The naturalist/ambient entails the capacity to understand nature, to help in preserving nature. This type of intelligence is specific to biologists, explorers, researchers in the field of nature.

9. The existential intelligence represents sensitivity and capacity to tackle deep questions about human existence, such as the meaning of life, why do we die, and how did we get on this planet. Usually, philosophers are the one with this type of intelligence.

As we argued earlier, an individual does not have only one type of intelligence, but all of them, demonstrating for each of these intelligence different levels of power or weakness. For instance, a dancer can excel in his field only if he has:

- a strong musical intelligence to understand the rhythm and musical variations;
- interpersonal intelligence to understand how to reach the audience emotionally through his movements;
- and not least, the body-kinaesthetic intelligence which determines amplitude, coordination, expressiveness in gestures, etc.

3. MULTIPLE INTELLIGENCES IN THE EDUCATIONAL AND BUSINESS ENVIRONMENT

Education was the first field that showed interest in this theory. In the nineteenth century, Alfred Binet together with his colleagues tried to help students who had difficulties in school through applications that brought together several types of intelligence, so that each student to assimilate information based on his profile. Later, when the theory of multiple intelligences became known within society, other institutions followed and assumed Howard Gardner’s practices as well (for instance, museums).

Recently, much larger and more powerful organizations, namely organizations from the business environment, were curious and interested in this theory.

Currently, the focus in Romania is only on the verbal intelligence and logical-mathematical intelligence. Students who do not have high levels of these two types of intelligence are considered as having learning or concentration problems. Howard Gardner recommends using all nine dimensions of multiple intelligences, so that even students who have inclinations to other areas to be helped to excel. He suggests a major change in the education system. Basically, he supports the shift from formal education
to informal education. Thus, it is recommended to use the following in the learning process: music, theatre, dance, artistic activities, multimedia, and teamwork. Information transmitted in this way will be understood and assimilated by each student regardless of his intelligence profile. Of course, one should not use all nine multiple intelligences within a course, but one should find that certain method to meet the individual’s unique way of thinking.

At the university level, the application of this theory is vital for the student’s or master student’s professional future. The student’s involvement in various activities to ensure a complete development and an infusion of knowledge in fields other than those studied in courses, will ensure the development of some skills that can prepare him for the competition on the labour market.

It is a well known fact, that large corporations and companies, expect and ask more from a future employee and the fact that one graduated a college or has a master’s degree represents only the minimum required within the recruitment add. Nowadays, companies are looking for students who, in addition to studies and diplomas, should have at least one relevant international experience, know at least two foreign languages, communicate and relate with others easily, be able to work in team and even be the team leader, be creative, open-minded, easy to adjust, see things as a whole and in detail as well, be able to solve problems easily and also be responsive to changes within the environment and quickly adapt to such changes.

Unfortunately, many students do not meet even a quarter of these requirements, mainly because within the university where they study the focus is still on teaching courses that encompass a lot of theory, the memorizing of information received and exams that only check how many pages they have learned. The lack of practical applications to help fixing the information received during courses, leads to the partial loss thereof so that the student will remain with fragmented pieces of theory that he will not know how to apply at his job.

Because of this situation, conflicts between the education and business environment arise many times. If companies complain about the lack of people who are really trained to face the challenges from the labour market, universities are complaining about the lack of some budgets that allow them to attract teachers who can conduct programs for the exhaustive development of the student. In many countries, such as the United States of America, large corporations have preferred to ensure the future employers by funding and even an active involvement in the management of schools, colleges or universities. They have also developed internship programs where students can understand the company’s culture, the interests of the company, the working style and, not least, the activities that the student will have to perform when he will be employed on a steady position. To better understand this phenomenon we have designed a table encompassing the most important departments within a company and their corresponding basis in one of the 9 types of multiple intelligences.
Therefore, one can observe that a company needs people who have different types of intelligence at a high level and most often those who lead such organizations will be those who will show several types of multiple advanced intelligences.

At the moment, the question that arises is how can we apply this theory in the academic environment and how can we train valuable students for the labour market?

The Faculty of Business and Administration of the University of Bucharest has already developed a couple of programs that are designed to facilitate the student’s training and access on the labour market.

We shall present further on a study case made based on such programs and the way in which they apply to a partial or complete extent the principles laid down and supported by Howard Gardner.

![Table 1](image_url)

<table>
<thead>
<tr>
<th>Type of intelligence</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linguistic</td>
<td>Human Resources, Sales, Marketing, Customer Relations</td>
</tr>
<tr>
<td>Logical-Mathematical</td>
<td>Accounting, Finance</td>
</tr>
<tr>
<td>Spatial</td>
<td>Production, Product Design</td>
</tr>
<tr>
<td>Bodily-Kinaesthetic</td>
<td>Production</td>
</tr>
<tr>
<td>Musical</td>
<td>Marketing, Advertising, Product Design</td>
</tr>
<tr>
<td>Interpersonal</td>
<td>Human Resources, Sales, Marketing, Customer Relations</td>
</tr>
<tr>
<td>Intrapersonal</td>
<td>Human Resources, Sales, Marketing, Customer Relations</td>
</tr>
<tr>
<td>Naturalist</td>
<td>Sales, Advertising</td>
</tr>
<tr>
<td>Existential</td>
<td>Human Resources, Sales, Marketing, Customer Relations</td>
</tr>
</tbody>
</table>

Table 1
4. CASE STUDY: CSOL-UB, SPHERE-AA, TEAMWORK

4.1. CSOL-UB

The Centre for Organizational Strategy and Leadership (CSOL-UB) is an institutional structure of the University of Bucharest (UB) which aims to create and develop: training and consultancy programs in the field of organisational strategies and leadership, research in the field of organisational strategies and leadership, collaboration with similar organizations from academia and business environment, events that are specific to the field of organisational strategies and leadership with the participation of personalities from various environments (academic, business, political, social, cultural, etc.). Also, CSOL-UB intends to support the development process of interaction between the academic and business environment with the sole purpose of optimising the organisations’ leading and management methods.

In a more distant time horizon, CSOL-UB aims to develop a network type of structure in Romania, given that there are 41 counties that can be counted as networks. Through a national network we aim to create an educational system in the field of organisational strategies and leadership to address pre-university, university and post-university education, as well as other socio-professional groups.

Another objective of the centre consists of defining clear training directions in the field of organisational strategies and leadership.

CSOL-UB has to adapt to any real situations, so as to provide contexts in which students of this centre can use their own practical experience, but also their theoretical knowledge in order to cope with a continuous succession of challenges.

CSOL-UB activity will be based on very clear objectives and performance criteria that will be assessed continuously.

CSOL-UB was established exactly from the necessity to provide students with another more informal environment, where they can develop capacities and assert themselves according to their skills. All the courses are theoretical, but, nevertheless, CSOL-UB aims to provide students with a practical basis where they can put into practice everything they learned so that they will be able to accentuate their profile of multiple intelligences.

As we can see from the description of the program, CSOL-UB brings together several types of multiple intelligences including interpersonal and intrapersonal intelligence, musical intelligence, existential intelligence and, of course, the linguistic and logical-mathematical intelligence.

Among the responsibilities of this structure we find also the following: the provision of training and consultancy services, development of studies, design, analysis and assessment activities, activities for development of policies and programs in the fields of organisational strategies and leadership, organization of conferences, seminars, national and international workshops to develop interactions between the academic and the national and international business environment, investment and funding attraction, etc.

Student participation within such program, would not only help them in their personal and professional development, but would help them to discover their weaknesses and strengths, the field in which they excel most, and the methods to use in order to better resonate with the environment, so that their accession in an organizational environment will be easier, given the fact that the impact with the labour market has the lowest values.
4.2. SPHERE-AA

We create – therefore we exist! Say Action/Motor to the creativity circle SPHERE-AA - this is the motto of this program which is based particularly those aesthetic intelligences such as musical intelligence, spatial, naturalist, linguistic and kinaesthetic intelligences.

The suggestive name of the program – “SPHERE-AA” - induces the idea of a WHOLE, an endless chain of talents, thus wishing the amplification of all the positive forces for stimulating and encouraging creativity and favouring self-realization, with the observation that “AA” stands for the concept’s place of birth, namely the Faculty of Business and Administration.

The creativity circle names SPHERE-AA is built on the moral foundation of the desire to apprise the truth, the good and the beautiful through search and experience, through putting these concepts into practice on both scenes: theatrical and real.

We want that, together with the students of the University of Bucharest – The Faculty of Business and Administration, to meet the objective of encasing the positive thinking into a creativity force through correlations, intuitions, imagination and sensitivity exploit and fruition.

Starting from the complexity of the creative process, we wish to see that certain something, even though it does not exist or maybe it has been forgotten, we desire its transposition into reality, to be more exact, we want the answer to the question “what do you do with it after you discover it?”.

In order to cope with everyday situations and to make more efficient the human interdependencies, the focus will be on self-discovery and self-improvement, with the hope that the young participants will be able to differentiate between good and bad, will be pleased with themselves, achieving the balance that we all look for. The accomplishment of these objectives will be done by establishing various cultural programs.

Another approach of this circle is represented by the training of thought. Creativity represents a mental and social process which involves the generation of ideas and concepts, or new associations of the creative mind between existing ideas or concepts, according to a general definition. The scene is one that sparks our creativity, the space is the place where animosities and other disturbing factors disappear, it is the point where creativity is synonymous with art, the place where you can build the values and principles of life through dance, music, literature or painting.

The idea to develop students’ skills, whether the skills are related to business or communication, led to the establishment of the whole great objective of the Sphere: to discover the genius within us. Whether we do this through a theatre play, whether we bring an indirect contribution to a cultural program, we shall develop both our social and emotional intelligence, and we shall learn to handle with great ability these conditions.

4.3. TEAMWORK

To support the student’s process of learning the leadership abilities, and in the spirit of the aforementioned data, TeamWork operates since 2002 within the University of Bucharest. TeamWork is a non-governmental, non-profit organisation created for youth and focused on learning through project management; this organisation is divided into departments (consisting of and coordinated by young students), replicating the structure of a company so that its activity is carried out in an environment closer to the labour market. The organization has also a strong civic orientation, aiming to provide its members and young people in general contexts where they can train and shape both as human beings and as professionals.
The organization on departments provides at the same time the opportunity for TeamWork’s members to assimilate valuable leadership capacities regardless of the position they have within the organization or the interest in a certain activity of the organisation.

Below, we present briefly TeamWork’s organizational structure, as well as its major projects, as they are presented on the organisation’s website (http://www.teamwork.org.ro).

communication department

Description: Communication Department operates and its activity follows two main directions: internal and external. Internally, the department's mission is to streamline the information between the volunteers within all TeamWork departments. Externally, the role of the Communication Department is to maintain relationships with other organizations (commercial or organisations from the civil society), and to promote the association among young people.

Activities: The attributions of the Communication Department are multiple and varied. These include establishing and maintaining partnerships with various non-governmental organisations, advertising and public relations agencies, media and sponsors. The tasks and role of this department also cover the following activities: establishing contacts for partnerships, monitoring and the verification of all the documents, both internal and external, creating promotional messages, posters, banners and signs, updating and maintaining the website, blog or Facebook page, and all these activities are performed within the “kitchen” of the Communication Department.

Each year, members of the Communication Department aim to find original, creative and sustainable ideas in order to implement new projects that will have great impact and visibility without high costs. In this regard, the department seeks to adjust to new media, the promotion of any project being made mainly online. The intense activity carried out by members of the Communication Department is reflected in the multitude of projects and campaigns implemented or supported by the department.

Main projects:
- The Botanical Garden – The garden of my city;
- Open Amphitheatre;
- TeamLetter – TeamWork Newsletter;
- 2% for TeamWork;
- TAC – Think-Act-Change;
- Various collaborations.

human resources

Description: Documents, archives, databases, contracts, signatures, stamps, questionnaires and certificates, these are the words that would briefly describe the activity of the Human Resources Department. In addition to the bureaucratic features of the department, there are also two other extremely important items: identifying volunteers suitable with TeamWork’s organizational culture and managing this resource for a better adjustment to the activities of the association.

Activities:
- Managing TeamWork’s database;
- Managing the situation of the certificates and the annual volunteering certificates;
- Analysis specific to the human resource field;
- Support for TeamWork projects in performing the assessment activities (researches based on questionnaires).

Main projects:
- TeamWork’s annual recruitment campaign.

Training
Description: Within TeamWork Association, trainings play a central and significant role as such trainings are focused mainly on the development of soft skills. The purpose of performing these sessions of non-formal education is to increase the employability potential of students in the moment of their accession on the labour market and to provide companies with another image that the one that is already custom and obsolete according to which the Romanian education does not train students anymore for “the real life within companies”. Through the continuous training of students, their theoretical knowledge can be coupled successfully with transversal competencies and this represents the main objective of the trainings conducted by TeamWork.

Activities:
- Internal trainings focused on TeamWork member and how it can really help the organisation;
- Organising and setting the schedule for meetings;
- Various activities organised with the purpose of strengthening the relations between the TeamWork’s members.

Main projects:
- TeamWork summer school;
- Presentation Skills;
- FOCUS Training;
- TeamWork club.

TeamWork School
Description: TeamWork School is one of the five departments within TeamWork, whose motto is “Learning by teaching others.” The mission of the department is to facilitate by volunteering a adequate socio-cultural integration for young people coming from disadvantaged environments, providing support in the education process.

Activities: The particularity of the department is to conduct training meetings on various subjects, the volunteering students helping children in performing of learning activities. The department is operational since 2003, when it started collaboration with the Placement Centre no. 8 in Bucharest. Since 2005, the particularity of the target group has changed, meaning the project was addressing to high school students on their final years of study, and in 2009, the department initiated and carried out successfully a project named “Integration precedes new life” in collaboration with the Saint Spiridon Centre in Bucharest.
Main projects:

- Integration precedes new life.

International relations

Description: Department of International Relations offers its members the chance to commence some international projects related to youth exchange projects with a strong cultural emphasis. Youth exchange projects, made with community funding with the help of the Youth in Action Program or private funding, is based on non-formal education and are intended to facilitate youth access to extra-curricular and intercultural knowledge.

Activities:

- Drafting projects;
- Performing youth exchange and projects for young people made with European funding;
- Establishing contacts and partnerships with European youth organisations.

Main projects:

- What’s in a difference? Mirroring ourselves through intercultural dialogue;
- Creative ideas for a better world;
- The Rural Space between Poverty and Traditions.

Within the TeamWork professional association, a democratic style has been embraced and the major decisions were taken after consulting with department coordinators and members of departments; in all the activities specific to this association there is a leadership style which balances the interests for tasks and people (see James Blake and Jane Mouton model) thus TeamWork has become a management school where the decision makers have sought to improve their leadership skills of all the members of the association. We mention that in the last 10 years the TeamWork association has trained over 1000 students, of whom many of them are currently: science PhDs, managers, consultants, professionals in various fields.

Selection of students to be a part of TeamWork has been made following a criterion which is specific to the business environment so that the system was able to draw people endowed with the ability to finalise, work in teams and persevere. The evolution of students within the association aimed to combine elements of leadership with strategies for influencing the behaviour of group members. In relation to the contexts created, the merits of each member of the organization, the power was distributed by the management team to each member of the organisation based on their contribution to increase organizational performance.

The power based on possession of information has acquired a special importance because each member of the association has realized that learning / knowledge represents an essential power source for their career. Students who have gained experience in the top fields (computer science, foreign languages, business, etc.) became conscious over the fact that thus they gained power in the field where they are now experienced. Department coordinators have obtained both the power of position and authority, but also the social power. At the level of this association we can talk about a system of meritocracy because access to the aforementioned types of power was made only by personal merits. All the strategies to influence the behaviour of group members were used in the development of the association members,
such as: pushing strategies, attracting, convincing, preparing, preventing strategies related to the contexts in which teams evolved, but also related to the objectives that the association had in time so that association members understood that one can have the ability to influence others (the power), but, at the same time, one should have morality and ethics not only in normal situations, but also in extreme ones.

Leadership, power, synergy represent concepts that define realities where people act, actually, we can talk about possibilities of today that can become realities of tomorrow, thus the ability to influence today people and contexts may become the source of future challenges. Leadership make the most of the people, but, at the same time, must train people in relation to systems of values that were correctly chosen and carefully utilized. We are talking about the organizational culture that can become a binding agent between the members of each group and a force to facilitate the achievement of the objectives.

CONCLUSIONS
In 1983, when Howard Gardner developed the theory of multiple intelligences he based on the desire to change the uniform education into a personalized one, and has attracted the attention of many critics. In his view, all human beings have all the 9 types of intelligence, but each person has a different intellectual composition, hence the people’s predilection to certain fields and history is full of such examples.

Seventeen years later, in 1999, Howard Gardner published a second book, Intelligence Reframed. Multiple Intelligences for the 21st Century where he explains the multiple implications of his theory on individuals’ education, daily life, hobbies or work. Moreover, Chapter 8 is entirely dedicated to the connection between intelligence, creativity and leadership, arguing that great leaders are those who have a combination of intelligence, not just the traditional ones.

The Faculty of Business and Administration within the University of Bucharest realized how important is the complex development for its students, and in this respect, it created and established three programs to help students emphasize their skills and help them to integrate more easily into society.

It is necessary for today’s students to discover their abilities and skills to become the leaders of tomorrow.

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ANTI - MONEY LAUNDERING
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Abstract
The counteraction against money laundering is a major direction, and sometimes the only possible mechanism for combating serious organized crime and corruption. Central place in the policies for preventing money laundering is taken by the involvement of the banking institutions to prevent the inflow of resources acquired from criminal activity, in the financial and credit system of the country, as well as using them again to extend and expand the criminal activity of individuals in new fields. This article clarifies the nature and characteristics of the “money laundering” phenomenon, as well as the factors that influence the successful dealing with this criminal phenomenon: contemporary legislation, adequate program to counteract the criminal behavior in the credit organizations, and full interaction of the banking institutions with the specialized security services.

Key words: money laundering, criminal activity, financial system, risk profile

INTRODUCTION
As is known, the process of globalization is crucial for the activities of the organized crime. In particular, after the transformation of Europe into a united economic space, it has also become an area of operation of the structures of the organized crime. The abolition of border control at the internal European borders created conditions for persons with criminal intentions to be able to implement illegal actions without any difficulty. Criminal gangs create multiple companies under the guise of which they can operate in different areas of the economy.

With the opening of the borders, the issue of free movement of goods, people, and capital has become particularly relevant. Through free trade, especially within the European Union, and huge commodity flows that can not be fully controlled, the laundered money is flowing into economy. It is precisely through free trade and free movement across borders that new opportunities are opened for the organized criminal structures to put illegally acquired income into a legal circulation or to do what is called “money laundering”.

Although it is almost impossible to statistically determine the amount of the laundered money on an international scale, the use of various economic indicators help the International Monetary Fund (IMF) to determine that the laundered money is from 2 to 5 percent of the global GDP, or at least from 590 billion to1.5 trillion U.S. dollars. U.S. State Department estimates money laundering in the world to $ 1 trillion a year, while in other estimations the total annual turnover reaches 2.8 trillion U.S. dollars a year. According to the data on the range of money laundering calculated by Professor Friedrich Schneider of the University of Linz /Austria/, in 2006, within the twenty most developed countries – member states of the Organization for Economic Cooperation and Development (OECD), 1.1 trillion U.S. dollars have been subject to money laundering. Unarguably, the vast majority of these capitals are in contact with
the financial, and in particular – the banking sector, which is seen as a useful tool for translating money of illegal origin at different stages of their legalization.

CHARACTERISTICS AND FEATURES OF THE MONEY LAUNDERING PHENOMENON

Money laundering and its countering on a global, regional, and national scale has been a subject of research by scientists and experts in the field of criminal law, criminology, forensic science, and the theory of operative investigation activities. A definition of the "money laundering" term requires its most common features to be put forward – those which, taken in their complexity, reveal its essence.

Gerald Mobius defines money laundering as a process in which the goal is operating with resources, mostly financial, originating from illegal activities in such a way that their source appears legitimate. Franz Billo considers money laundering as one of the most important goals of the criminal associations – using funds received from illegal transactions, so that they carry the highest possible profit and are protected from any crises. Nikola Filchev defines money laundering as making use of financial institutions for the legalization of proceeds of the predicate offense. Boyan Stankov points to money laundering as being part of the totality of the criminal activities directed against the economic order and forming transnational organized crime. He defines it as follows: "operations committed to disguise both the origin of the proceeds acquired from crime and their owner in order for participation in the legal economy".

In the definitions of individual authors and experts money laundering is seen as a subsequent criminal activity for the legalization of funds acquired in an illegal manner. This is an activity of concealing the existence of illegal property benefits or operating therewith as well as making such economic transactions, that the money seems to have been obtained from a legitimate economic activity. All authors, in one way or another, hold the view that the financial system is an indispensable prerequisite for the successful money laundering, and the final legalization of the dirty money is realized in the legal economy.

By "dirty money" one should understand any kind of illegal assets acquired from crime and other offenses as well as the income and the profits from their implementation in the commercial and civil turnover. And although illicit drug trafficking and financial crimes remain the most common source of "dirty" money, there also exist other crimes from which financial advantages are derived:

- illegal sales of natural resources - oil, gas, metals;
- smuggling of alcohol, cigarettes, drugs, and arms;
- income from activities, such as: prostitution, kidnapping and human trafficking, theft, robbery, etc.;
- crimes related to misappropriation of state property, tax evasion, illegal investment operations.

It is important to note that these crimes and the subsequent legalization of the incomes received are most prevalent in well localized regions of the world, and more precisely – in an environment with appropriate conditions. These could be countries with insufficient legislation as regards this type of crimes, with a corrupt or prone-to-corruption financial system, corruption in the highest circles of power, deficiency of appropriate counter measures in the sense of impossibility for implementation by the competent authorities of the laws on investigation of crimes or a lack of coordination and cooperation between these bodies.
In order for the laundered money to be spent or further invested, and declared as if it were acquired by means of a legitimate business, their original criminal source should be concealed. This is done by putting these funds into the economic turnover as well as implementation – at different stages – of operations and schemes that are multiple and vary widely in type and complexity.

Traditionally, in literature money laundering has been discussed in terms of a three-phase process. The three phases are as follows: placement, layering, and integration. It is a widely held view among both researchers and institutions engaged with this issue.

The classic process of money laundering can be represented schematically, as follows:

\[\text{Figure No}1\ \text{Money Laundering Process}\]

In the placement phase (also called investing, distribution, depositing) the money acquired by means of a criminal activity are being distributed – mostly in financial institutions. This stage in the money laundering process involves the physical movement of the money into the legal financial system. Various techniques are employed for this purpose, such as traditional methods of smuggling and transportation of funds, putting the money into the financial system under the disguise of a deposit account held at a bank, etc. Once deposited, money becomes indistinguishable from income earned in a lawful manner – from legitimate business activities.

At the stage of distribution, when criminal proceeds enter into initial contact with the financial system, the money laundering schemes are most vulnerable to detection as the relationship of the dirty money with its original source is stable and could be easily established.
In the second phase – layering (also called branching, masking, disguise), the objective is hiding the criminal origin of the funds by means of a series of transactions aimed at conversion of the capital assets from one type into another. Transactions are usually made through the services offered by institutions that are part of the legal and financial sector itself does not differ from the usual transactions carried out through the financial sector. The difference comes from the original intention in making these transactions, which is not necessarily bringing the grist to the mill, but making the funds generated by crime look as if they were acquired from legitimate sources. To achieve this objective, in many cases, money launderers are inclined to suffer losses from operations being carried out.

The phase is defined as layering, because the traditionally implemented transactions are carried out in a consistent manner, where one transaction is layered upon another, and a layer construction is formed. In addition, capital is often layered throughout the overall financial system through a variety of transactions that are being performed simultaneously. Thus, a complex web of financial transactions is created, with which the launderers intend to hinder the relating of the proceeds back to their criminal sources.

In the layering phase, the laundered money becomes indistinguishable at first glance from the "clean" money, obtained in a legal manner. Yet, the income and the profits from the financial operations cannot be used freely and fluently by criminal groups and organizations. For this reason, the process of money laundering ends up with their legalization through integration primarily in commercial turnover.

The last phase is integration. In it, the "dirty money" flows into the legal economy, after the illusion have been created that it has a legal, rather than a criminal origin. Dirty, less dirty, and clean money is mixed up, and the relation to the initial crime or any other offense is finally lost. Integration involves techniques, as numerous and varied, as those used in the legitimate businesses to increase revenue and reduce tax liabilities. But most often, according to researchers, this is done through purchase of real estate, hotels, restaurants, shops, etc. At this stage, it is very difficult for the money to be associated with its criminal origin without a serious investigation.

The integration stage is the culmination of a successful money laundering scheme, and the money could be used by the criminals for their purposes—almost unconstrained. Thus, the process of money laundering enables those individuals to freely enjoy the proceeds of their criminal activity without the funds to be associated with the activity from which they were acquired, looking as if they were obtained in a legal way.

In spite of the wide agreement among authors on the three phases through which the money laundering process goes, it should be kept in mind that they tend to be a generalization based on the experience of the researchers and do not necessarily exist in this strict form. It is not in all cases that the money laundering process goes through all the three phases, that is—money can be laundered through only one of those phases. Furthermore, they often fuse into one another. Therefore, it is sometimes difficult to determine the phase under which a specific operation could be subsumed.

In some cases it is possible for more phases to be included. For example, it is possible that a preparatory phase precedes the distribution phase. However, according to most of the researchers, money laundering in its classic form goes through these three phases and the effect of the distinction between them is the better comprehending of the activities that are part of money laundering.

Combating money laundering is related to uncovering and eliminating the reasons and the factors that cause or facilitate the commission of offenses as well as protecting the citizens from criminal and other socially dangerous acts. To successfully cope with money laundering, the following three conditions should be met: effective legislation, an adequate program intended to combat a criminal behavior in
credit organizations, and a full interaction between banking institutions and specialized security services.

EFFECTIVE LEGISLATION AS A PREREQUISITE FOR A SUCCESSFUL FIGHT AGAINST MONEY LAUNDERING

First, modern legislation is necessary – both national and international, providing protection against money laundering. The efforts and the measures to combat money laundering and terrorist financing at the global and national levels include: adequate legislative decisions, regulating power, coordination, and working mechanisms for all bodies and organizations involved in this process either directly or in the form of a temporary obligation.

Currently, this legislation is a fact in more than 100 countries around the world, and is a subject to a continuous improvement, due to the continuous striving for achieving a more effective control, while taking into account the interests of all participants in the financially-credit system.

In international terms, the Republic of Bulgaria ratified in 1993 the Convention of 08.11.1990 on Laundering, Search, Seizure and Confiscation of the Proceeds from Crime, known as the Strasbourg Convention. In 2000 it ratified the UN Convention against Transnational Organized Crime.

Of considerable importance among the international acts in the field of money laundering were the Forty Recommendations of FATF (Financial Action Task Force) against Money Laundering, adopted by the Republic of Bulgaria as well as the FATF Recommendations against Terrorist Financing. Also, in Bulgaria is adopted the Council Directive 91/308/EEC for prevention from use of the financial system for money laundering.

In national-legal terms, over the last fifteen years the major special laws in the area have been adopted, namely: the Law on Measures against Money Laundering, Act on Measures against Money Laundering and Terrorist Financing, along with the Regulation for implementing the Law on Measures against Money Laundering, the SANS Act - along with its implementing rules.

Albeit with a significant delay, Bulgaria has been actively involved in the development of a pan-European system for combating money laundering. Despite the short period of implementation and regular adjustments, our legislation in this dimension is sufficiently developed, satisfactory, and in line with the European standards. This is reported in the 2006 European Commission annual report on the compliance of the Bulgarian legislation with the EU standards in the field of combating money laundering and terrorist financing.


A formal compliance of Bulgarian legislation with the global standards in fighting money laundering is not sufficient for managing crime. It is, therefore, particularly important to focus the attention upon the actual implementation of the legislation. What is of great interest in this regard is the 2011 IMF report on the effectiveness of the implementation of the recommendations of the Financial Action Task Force (FATF). The data cited in the report sets for our country levels near and above the average as regards the degree of implementation of the FATF recommendations. On the basis of the data presented in the
IMF study one could infer a claim to the serious progress Bulgaria has achieved in terms of preventive policy at the national level.

**A PROGRAM FOR COUNTERACTING MONEY LAUNDERING IN CREDIT ORGANIZATIONS**

An important role in the fight against laundering of "dirty" money and avoidance of the negative consequences of this activity has the development and implementation by the financial institutions of the program for counteracting money laundering. A key element of this program are the internal rules and procedures that banks must comply with in practice, and the use of so-called "risk profiles" for detecting suspicious behavior and conduct illegal activities.

The risk profile includes a system of signs or indicators of offenses, and with their occurrence is made a risk evaluation, while some additional measures are listed for making a detailed examination, which should either reveal an infringement or categorically reject the assumption of such. Two main groups of indicators could be identified: general and specific. The common indicators are related to the origin of the funds, the purpose of the transaction or the operations, data on the participants involved, and its compliance with the business profile and social status of the client. The specific indicators are grouped in terms of different types of transactions and specific identity and behavioral profiles of the customers.

The risk profile is based on the analysis of multiple and common cases of money laundering and terrorist financing. Thus, one could derive data on the features characterizing the use of a relatively stable pattern of disguising money laundering or terrorist financing activities. It is of great importance that the risk profile is continually reassessed in order for it to be updated and the latest changes in the risk area – reflected. It must be flexible enough to allow for inclusion of new elements as well as some indicators which occur very rarely.

The risk profiles and the indicators included therein are accompanied by coefficients, that is –different signs are given different weights. Although there may be common risk signs and profiles, it is not possible to set universal coefficients for the risk signs because risks and threats change depending on several variables, just as laws, criminal organizations, and industry change.

What is necessary for the preparation of the risk profiles is a constant flow of information for which there are specific requirements determined:

- **Relevance** - information should be relevant to the tasks of combating fraud and crime;
- **Significance and value** – the financial information should be of significant importance for reaching a specific goal;
- **Reliability** – the information must be consistent with the objective reality, which is achieved by using reliable sources and verifying the data obtained;
- **Timeliness** - this requirement is considered as the most-important prerequisite for success, because its violation can fully or partially depreciate even the most-important and reliable information. As Irving Heymont, one of the theoreticians of intelligence, puts it: "Even the most comprehensive intelligence data would lose its integrity, if it does not reach the authority or the person concerned in a timely manner ."
Completeness - a requirement for a sufficient amount of data, in order for an accurate picture of the investigated objects, processes, and phenomena to be built. If the data collected is insufficient, one could proceed with the acquisition of further information referring to the analyzed issue;

Secrecy – the financial information must not be disclosed in the course of investigation of the financial offenses, so that no action is taken by any offender aimed at deletion of their traces.

In developing the program for combating money laundering, it is necessary to identify the vulnerable departments and activities in a particular banking institution. The respective departments and activities could be divided into low-risk, medium-risk and high-risk, and depending on the category under which they are subsumed, the relevant measures are determined for them for the purpose of counteracting money laundering. Once a profile of the organizational structure has been created, and the risk areas and activities have been defined, it is necessary to identify risk factors that may make it possible for the bank to be used for the purpose of money laundering.

Factors facilitating money launderers may be:

- weak or ineffective requirements introduced to combat money laundering in credit institutions;
- lack of or unclear mechanisms for reporting on suspicious transactions or contracting partners;
- lack of or weak procedures for internal control of bank officers as regards implementing the measures for counteracting money laundering;
- unclear or minor powers of the head of the specialized unit for counteracting money laundering in the banking organization;
- opportunity for a one-sided judgment on the part of the officers working in what are determined as risk areas and activities.

These factors may hinder the fight against money laundering in each department and sector of activity in financial institutions. Yet, emphasis should be placed mainly upon the areas of risk, and for each of them there should be identified factors that can create favorable conditions for the activities of money launderers. Once the major risk factors have been established, the implementation of measures for counteracting money laundering would be targeted and more effective, rather than formally applied to any type of activity carried out by the persons concerned.

Once the program for prevention of money laundering in banking structure is set up and implemented, the way in which it is being applied should be closely scrutinized. Requirements are placed for inclusiveness and sustainability, that is - it should be applied to every single case in the long term, not just sporadically, only for individual situations. It is precisely the control by the specialized officer as well as the regulators that could give a guarantee that the banking employees meet these requirements and put into in practice the measures for prevention of money laundering.

All bank officers have to be familiar with the program, and particular attention needs to be paid to employees working in what are determined as risk sectors. This indicates the need for organizing trainings to familiarize the officers with the new developments in this area. Training can be carried out by an internal specialized unit charged with the duty to monitor the legislative changes at the national and international level with regard to issues concerning money laundering combat as well as by external experts.

The content of the training must be periodically updated, due to the ingenuity of the launderers and the changing money laundering schemes. Training should be carried out regularly to familiarize bank
officers with the new developments in this area. It has been pointed out that in recent years there have been increasingly more sophisticated combinations of methods applied to launder money, such as using legal entities to conceal their actual owners as well as the individuals who control the criminal income, an increased use of professionals for obtaining advice and assistance in carrying out illegal activities.

It is recommended that the specialist officers and the governing bodies of the bank undergo training at least once a year, and the other officers - at least once in 24 months. It is particularly important that all employees who work in this area fully understand the need for consistent application of the rules for money laundering counteraction. Banking culture, which facilitates such concept, is the key to the successful implementation of the program.

INTERACTION OF BANKING INSTITUTIONS WITH SPECIALIZED SECURITY SERVICES

Banks are expected to prevent any attempts at using the financial system for criminal purposes - in supporting the authorities by fast and accurate responses to the inquiries sent to them as well as ensuring propriety in the implementation of the measures against money laundering.

Pursuant to the Recommendation 13 of the Financial Action Task Force (FATF), Article 11 of the Measures against Money Laundering and art. 9, paragraph 3 of the Law on Measures against Financing of Terrorism (LMFT), on suspicion of money laundering and terrorist financing, banking organizations and obliged persons must immediately notify the Financial Intelligence Unit (in Bulgaria it is the "Financial Intelligence" of "State Agency for National Security") before the operation or transaction, delaying its implementation within the time allowed. In case the delay is impossible for objective reasons, then notification should be made immediately after finalizing the transaction.

On suspicion of money laundering or terrorist financing, the bank officers notify their supervisor before performing the operation, who decides on whether to stop or allow for its implementation on the basis of the information and documents gathered. In this relation the following is necessary:

- giving full details in a chronological order on the perspective offense, including what is unusual, irregular or suspicious about the operation or the transaction;
- establishing whether or not this is the first attempt at offense by the individual or the entity;
- preserving all documents intended to deceive the banking institution or to conceal the traces of a prior fraud;
- disclosing bank account numbers, company names as well as the grounds on which the suspect has ordered the transfer of funds that generate money laundering or terrorist financing.

After discussing the evidence, the bank's management decides on notifying the competent authorities. The solution for reporting on an operation may be regarded as a consequence of the presence of three sets of indicators: 1) subjective - involving observation on both the customer's behavior and the nature of the operations initiated, 2) logic - derived from the analysis of the specialized money laundering software and 3) exogenous - including signals and data on certain individuals received from external sources.

Notification of suspicious transactions, operations, and customers should be regarded by banking companies not only as an imperative obligation imposed by law, but also as an expression of the personal attitude of a citizen. The conscientious fulfillment of this obligation carries out several tasks:
• providing the competent authorities with the necessary primary information for perspective money laundering or terrorist financing in order for a financial intelligence analysis to be initiated;

• enabling the authorities to take immediate measures to terminate a suspicious operation or transaction or block an operation aimed at terrorist financing;

• reducing the risk of damaging the reputation of the credit institutions in attempts to be involved in the process of money laundering or terrorist financing by their customers;

• providing feedback by the state agencies in the process of providing information by the banks for the purpose of prevention of money laundering and terrorist financing, for making decision to either continue or terminate business or professional relationships with the client – a perspective perpetrator of or accomplice in money laundering.

As useful guidelines for interaction between banking institutions and specialized services could be suggested preparing a handbook, summarizing various schemes of money laundering and, respectively–information on both identification thereof and countermeasures. Publication of a variety of methodologies, guidelines, and directions by the public authorities related to implementation of the legal provisions on counteracting money laundering would enable the unification of the criteria for interpretation and implementation of the preventive measures in separate banking units and improve their interaction with government authorities.

What is also recommendable are: regular organization of joint seminars and discussions whereby experience could be exchanged of law enforcement agencies and banking institutions working in the field of money laundering, analyzing the problems, and collectively seeking solutions. The bulk of information, generated in the specialized services, is of unique character for our banking system, because it consolidates the information reported throughout the banking sector. Summarized and processed, the information could be especially useful to liable persons with regard to establishing effective mechanisms and practices to prevent money laundering.

It is of significant importance that there are rules adopted in the form of subordinate legislation–for providing feedback by government agencies to financial institutions both during the inspections and after their completion, along with the results thereof. Such standards in the communication between the competent authorities and financial intermediaries are neither developed, nor applied in Bulgarian practice or anywhere in the world, and these are precisely the standards that are key to achieving the common goal of effective prevention of the phenomenon, based on a trust relationship between institutions regardless of the difference in their functions, objectives, and tasks.

The simultaneous implementation of the three conditions creates the necessary environment, brings impetus for counteracting laundering of money by using the banking system, ensures the normal market functioning of the latter, promotes economic development, maintains public interest, and supports national security.

**CONCLUSION**

Money laundering is a problem in all countries, and especially serious and dangerous for the new democracies. It is an essential tool of the organized crime to legitimize illegally acquired proceeds in the legal economy. Measures related to prevention of this criminal activity are aimed at detecting and eliminating the reasons, conditions, and factors that cause or facilitate commission of offenses as well as protecting the citizens from criminal and other socially dangerous acts.
The globalization of the resistance against this type of illegal activity proves to be an objective necessity—not only because of the integrated economic area, but also due to the necessity for joining the efforts of the entire society against the possibility that criminal structures use the financial and, in particular, banking system for implementing successful speculative operations and making huge profits. In consequence, in its Report of June 1980, the Committee of Ministers of the Council of Europe concluded that "...banking system can play a very effective preventive role" and, as a result, a series of initiatives related to prevention of money laundering have been adopted.

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MONEY LAUNDERING RISK MANAGEMENT IN THE BANKING SYSTEM

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Abstract

This article highlights the importance of the risk-based approach to combating money laundering in the banking sector. This approach is seen as a contemporary risk technology which enables the reduction of the dangers and threats to the financial system through concentration of the financial control in areas with high risk of money laundering. The thesis statement is that risk-based attitude on prevention of money laundering is an innovative moment in the banking business, based on the concept of risk quantification of conducting illegal activities, which allows to avoid spending extra resources and remove unnecessary barriers to trade flows in carrying out banking supervision.

Key words: money laundering, risk analysis, banking supervision, risk operations, customer identification

1. INTRODUCTION

One of the main challenges facing the financial sector at the beginning of the XXI century is undoubtedly the fight against money laundering. While in the recent past money laundering was related mostly to organized crime, today the concept includes a wider range of activities practiced by private individuals as well as companies and corporations with diverse business profile. Both the increasing complexity of this activity and the large amounts of capital derived from or related to it, make money laundering a priority issue, covering various aspects of the economic, political, and legal sphere.

Money laundering through the financially-credit system is crucial for the success of any money laundering operation. For this purpose are used the capacities of the international financial institutions, such as the integration of the financial systems in the world and the free movement of capital as well as the freedom of providing financial services, related to the entire financial domain. The banking institutions may well be used, against their will, as mediators in the transfer and storage of money acquired as a result of criminal acts. Intentional or unintentional attraction and release into circulation of money from dubious sources could destabilize the financial condition of the bank and restrict its independence.

Counteracting money laundering in the banking sector includes management and control activities, securing the successful lawful functioning of the financially-credit system in the country. This counteraction is associated with setting a certain threshold for the amount of the transactions above which the competent state authorities should receive information from the banks and take implicit control of the source of the money. Such transactions that exceed the stipulated threshold are considered worldwide as risky operations which could possibly be related to money laundering or terrorist financing.
2. METHOD OF ANALYSIS AND CONTROL OF THE RISK OF MONEY LAUNDERING

The controlling system has been applied for years in developed market economies. It is through this system that banking control has been implemented – in monitoring cash flows as well as their sources and triggering a defense mechanism in case of suspected money laundering. One should not assume that the implementation of the controlling system is a form of interference in the clients’ affairs on the part of the bank officers. On the contrary – rather, the bank implementing control should create in all participants – both customers and employees, an opportunity for self-control:

- clients - to refrain from risky operations that would create the impression of illegality of the ordered bank operations;
- bank officers - not to let an ordered bank operation fall in suspicious transactions. This is especially true of new and unknown clients.

There are two types of controlling – strategic and operational, differing in their tasks. The task of the strategic controlling consists in the timely detection of changes in the initial, known characteristics of the bank's customers, the parameters and the source of the funds with which they operate. The objective of the operational controlling is supervising the efficiency of the monitoring system for the bank’s clients and an adequate reaction of the bank employees aimed at identification and registration of transactions with funds from dubious sources.

In spite of the endless ways used by offenders in the process of money laundering in the banking sector, there could be observed some centers for monitoring by the controlling service and internal banking supervision, whereby the attempts at money laundering could be identified, registered, and the requirements of the authorities in detecting an attempt at fraud – met. These are transactions related to:

- infusion of money into the financial system;
- cross-border cash flows;
- transfer of money within the financial system.

Subject to monitoring are certain suspicious transactions of which there is no guarantee for being based on a legitimate business. Bank must control every single transaction or a series of transactions that exceed the normal monetary limits for the services offered, such as: account opening, monthly electronic transfers, cash transactions, traveler's checks, money orders, bank checks, third party cheques, bearer check, internal transfers, purchase and sale of foreign currency, credit overdraft and trade facilities, including purchase and sale of foreign currency and precious metals.

Monitoring is necessary in respect of accounts with intensive activity that could be associated with an increased risk of suspicious transactions, such as accounts of non-bank financial institutions, accounts of private investment companies, correspondent accounts subject to garnishment, accounts of high-risk jurisdictions lacking effective money laundering control, etc. Each bank is required to impose restrictions and update them periodically in order to establish whether they are still adequate.

The identification of a potentially suspicious activity should be audited by specialized personnel. In the absence of sufficient information for a legitimate activity, the bank is obliged to file a statement of dubious business.

An important controlling tool is the analysis and application of a risk-based approach to risk management in line with the specific activity of the credit institutions and the types of the clients served. It is too difficult and in many cases – impossible for a bank to distinguish a legitimate, normal transaction
and an illegal, suspicious one, unless it develops and integrates a risk-based review of the activities and operations – in the form of risk profiles, with this review being consistent with the type and the profile of its operations and transactions performed.

The risk profile is a document in a paper or electronic form for compiling of which are used statistical data or expert assessments. Each risk profile includes a system of signs or indicators of offenses and with their occurrence is made a risk evaluation while some additional measures are listed for making a detailed examination which should either reveal an infringement or categorically reject the assumption of such. The design of risk profiles is based on the analysis of multiple cases of money laundering and terrorist financing that frequent occur. In this way data could be extracted about the features that characterize the use of a relatively stable pattern of concealing money laundering or financing terrorist activities.

The risk-based approach, also called a risk analysis method, is being applied at various levels in banking institutions – client authentication level, banking product level, internal control procedures level, whereby the risk evaluation of money laundering is implemented by setting differentiated risk classifications: low, medium, and high risk.

The risk evaluation of money laundering through applying a risk-based approach is due to various conditions but, generally speaking, one could identify three of them. The first one is purely quantitative and consists in a very large data flow accompanying the operation of modern banks. The second is related to the sensitivity of the suspicious transactions registered by the banks which, although being a subject to systematization, have a unique specificity and interpretation. As a third condition one could point to the very wide range of factors that might relate a bank to the money laundering risk.

3. ACCOUNTING FOR THE MONEY LAUNDERING RISK AT THE CLIENT AUTHENTICATION LEVEL

In considering the risk within the client authentication even more banks are resorting to formulating a kind of risk matrix similar to the scoring systems used by them for calculation of the client risk in offering credit products. In the table below are presented the parameters of an examplary scoring system that is based on three risk categories (external risk, customer risk, product risk), classified into three risk groups – high, medium, and low:

<table>
<thead>
<tr>
<th>Type of risk:</th>
<th>Low risk</th>
<th>Medium risk</th>
<th>Higher risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>External risk</td>
<td>one point</td>
<td>two points</td>
<td>three points</td>
</tr>
<tr>
<td>Customer risk</td>
<td>one point</td>
<td>two points</td>
<td>three points</td>
</tr>
<tr>
<td>Product risk</td>
<td>one point</td>
<td>two points</td>
<td>three points</td>
</tr>
</tbody>
</table>

The external risk reflects the risk of the overall external environment with which is associated a particular client or the operation he has performed. It could expressed the risk of a particular country, the risk of registration of business clients in the offshore area, the risk of belonging to a particular sector,
etc. For example, external risk can be determined by the country or territory to which corresponds an operation.

Low risk countries in terms of money laundering and / or terrorist financing are those in which there is a highly developed and transparent legal system, a low corruption level, and a sustainable and independent financial market.

Medium risk countries are those that are not explicitly classified as either high-risk or low-risk countries. There could be very strict laws on data protection applied in these countries which implies less transparency with regard to customers.

High-risk countries are characterized by a high corruption index, unreliable economic and political environment, inefficient judicial system or very low registration requirements.

The scoring factors used to measure the risk from a country are the following:

- Whether or not the country is defined as being concerned due to a deficiency in the measures against money laundering and terrorist financing. Supplemental information received by MONEYVAL, FATF, and the US Department of State;

- Whether or not the country has a well developed financial center. This would have an influence on whether the country is attractive enough to people involved in money laundering and terrorist financing;

- FATF member states are considered less risky than the countries that are not FATF members, since there are well-established laws or regulations against money laundering applied therein;

- Whether or not the country has tax regime, which can be thought of as beneficial to business due to either low or no corporate taxes, or is characterized as a tax haven with either low or no personal income taxes. The information is obtained from various independent sources, including the FATF and the International Monetary Fund;

- Whether or not the country has been identified as a source of drugs or a transit country for drug trafficking. Supplemental information received by the FATF and the CIA;

- The CPI of the country (Corruption Perception Index - CPI) obtained as a result of Transparency International;

- Whether or not the country has an unstable political system or lives in constant social tension. This would have an influence on the capacity of the country to start fighting against money laundering and terrorist financing. Supplemental information received by the FATF, the CIA, and the World Bank;

- Whether or not the country is a "gray" economy, which could be potentially a hot spot for money laundering because of the intensive character of cash;

- Whether or not the country is involved in organized crime and activities, such as illegal immigration and human trafficking, extortion and smuggling. This is supplemental information obtained from several independent sources, including the CIA, Interpol, and the UN;

- The Gross Domestic Product (GDP) of the country based on the primary purchasing power parity (purchasing-power-parity - PPP) per capita. Measures of national income are used to accurately determine the level of economic development and living standards. The information is obtained from primary sources, such as the IMF and World Bank.
The risk countries can be presented in a table, as follows:

<table>
<thead>
<tr>
<th>Table № 2 Risk Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW RISK (1)</td>
</tr>
<tr>
<td>RISK COUNTRY</td>
</tr>
<tr>
<td>* Legal System;</td>
</tr>
<tr>
<td>* Corruption;</td>
</tr>
<tr>
<td>* Financial Market.</td>
</tr>
</tbody>
</table>

In assessing the risk of the client, the bank takes account of the information obtained in correlation with the overall customer authentication policy ("Know your customer" policy), and there may also be information included on the social status and the financial situation of the person, the character and the location of the operation, as well as data on his contractors. When building a customer profile, the bank requires the information necessary for the risk evaluation and does not encumber further the client with submission thereof. The data contained in the client profile is bank and trade secrecy and is not to be disclosed to third parties, except in the cases specified by law.

Low risk customers in terms of money laundering and / or terrorist financing are persons whose source of income is easily established. An example of such persons are local or public authorities, whose salaries are disclosed, personified entities entrusted with the responsibility for performance of public functions, companies or credit institutions which are traded on a regulated market where information on a legal entity is transparent and can be publicly verified, retirees, etc.

Financial or credit institutions from the EEA and third countries, subject to equivalent requirements, are classified as low-risk. A part from the listed clients, being subject to less stringent duties of care, are those who are virtually associated with a lower risk, while this risk group also includes large national and multinational companies listed on the “Safe Exchange.”

Average risk customers are limited companies that are not traded on regulated exchanges, private companies in the EU, the U.S., and Canada, as well as customers about whom there is little or no information in the public domain, etc.

There are customers who are categorized as high-risk, depending on their history, the character and the location of the activities performed, home country or place of birth, the source of the funds used, and the nature of the counterparties. These clients may be individuals – non-residents, trusts, charities, NGOs and organizations receiving donations, companies with nominal owners, persons who are presently holding or once held a high official position, customers who are not physically present in the bank at the time of the establishment of relationship with the bank, people with dubious reputation, etc.
The classification of risk clients could be presented, as follows:

**Table № 3 Risk Customers**

<table>
<thead>
<tr>
<th>RISK OF THE CLIENT</th>
<th>LOW RISK (1)</th>
<th>MEDIUM RISK (2)</th>
<th>HIGHER RISK (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Public Companies;</td>
<td>* Permanent income and income from salaries of permanent residents</td>
<td>* Permanent income and income from salaries of non-permanent residents</td>
<td>* Casinos</td>
</tr>
<tr>
<td>* Public Functions;</td>
<td>* Local freelancers</td>
<td>* Non-residents freelancers</td>
<td>* Diamond merchants, Traders of art objects, Car dealers</td>
</tr>
<tr>
<td>* Companies that are on the stock exchange;</td>
<td>* Small local businesses and medium-sized offices</td>
<td>* Non-residents small businesses and medium-sized offices</td>
<td>* Tourist offices</td>
</tr>
<tr>
<td></td>
<td>* Local government bodies, public bodies or corporate bodies responsible for implementing public functions in accordance with requirements of the European Union</td>
<td>* Operating in the country construction companies, hoteliers and restaurateurs, freight forwarders, tour operators</td>
<td>* Offices of exchange (cash services)</td>
</tr>
<tr>
<td></td>
<td>* Large national and multinational companies listed on the “Safe Stock Exchange”</td>
<td>* Other entities that not present low and high risk</td>
<td>* Companies address mailbox, individuals with unknown employer, etc.</td>
</tr>
<tr>
<td></td>
<td>* Low-risk industries</td>
<td></td>
<td>* Foreign companies in the construction sector, hoteliers and restaurateurs, freight forwarders, tour operators</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Mobile Phone Shop</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Arms industry</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Financial institutions in the Baltic countries</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>* Financial institutions from third countries</td>
</tr>
</tbody>
</table>

When establishing relationships with clients, falling into the higher risk category, the bank must first gather sufficient information about the person pertaining to the category referred to. This is achieved by the mandatory authentication and its verification, as well as by additional information obtained after the application of the advanced measures described in Recommendation 5 of the FATF, Directive 2005/60/EC of the European Union and in Art. 8, paragraph 3 of the Implementing Regulations of the Law on Measures against Money Laundering.

The bank can effectively control and reduce the risk, only if it has information provided on the common activities of the client, so that it has the capacity to identify transactions that fall outside the established customer profile. Of course, the extent of monitoring would depend on the risk category into which the customer is classified. Banks should scrutinize closely all the complex, unusually large transactions as well as all unconventional types of transactions with no apparent economic and legal sense.
As for the product risk, the low risk assessment is for those customers who have been credited by the bank as well as those who have chosen the bank as their primary servicing institution. Medium risk is ascribed to customers performing operations that can be easily traced and identified, as is the case with letters of credit, real estate investments, transactions on the stock market, etc. High risk is determined for persons whose operations are characterized by a high degree of anonymity, who have no bank account, and who make cash transactions on a regular basis, or are users of international correspondent banking services, “accounts allowing for transit payments”, international private banking (for wealthy private banking customers), etc. The classification of the product risk is presented in the following table:

<table>
<thead>
<tr>
<th>RISK OF THE PRODUCT</th>
<th>LOW RISK (1)</th>
<th>MEDIUM RISK (2)</th>
<th>HIGHER RISK (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Transparency regarding sources of funds and cash flows;</td>
<td>* Credits</td>
<td>* Documentary operations</td>
<td>* Correspondent relations with third countries</td>
</tr>
<tr>
<td>* Degree of anonymity</td>
<td>* Product financing</td>
<td>* Commercial financing of any kind</td>
<td>* All transaction types of offshore companies</td>
</tr>
<tr>
<td>* Transparency regarding sources of funds and cash flows;</td>
<td>* Treasury</td>
<td>* Payments</td>
<td>* Internet Banking</td>
</tr>
<tr>
<td>* Degree of anonymity</td>
<td>* Investment Banking</td>
<td></td>
<td>* Fiduciary transactions</td>
</tr>
<tr>
<td>* Transparency regarding sources of funds and cash flows;</td>
<td>* Monthly wages and retirement accounts</td>
<td></td>
<td>* Cash transactions</td>
</tr>
<tr>
<td>* Degree of anonymity</td>
<td>* Deposit accounts directly related to wages / pension accounts</td>
<td></td>
<td>* Transactions in foreign currency</td>
</tr>
<tr>
<td>* Transparency regarding sources of funds and cash flows;</td>
<td>* Housing loans</td>
<td></td>
<td>* Cooperation with third countries which manage funds</td>
</tr>
<tr>
<td>* Degree of anonymity</td>
<td>* Consumer loans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Transparency regarding sources of funds and cash flows;</td>
<td>* Own working capital for corporate clients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* Degree of anonymity</td>
<td>* Investment funds for clients, guarantees for corporate clients</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the risk evaluation at the customer authentication level are summarized in three groups:

- **Group I** - 3 to 4 points – for low-risk customers
- **Group II** - 5 to 7 points for – for medium-risk customers
- **Group III** - 8 to 9 points – for high-risk customers.

The risk with customers who have 5 -7 points is considered normal (standard) and the majority of the banking clients fall into this group. Generally, the more public information available – the easier customer evaluation, and it would normally result in a classification into a lower risk level. On the other hand, non-transparent clients whom are more difficult to gather information about, usually bring a high risk in terms of money laundering and terrorist financing.
Taken separately or in combination, these risk categories are applicable as part of a strategy intended to manage the potential money laundering risks, and the type of the inspection is predetermined – the one aimed at identifying high-risk customers who could implement perspective unlawful activity.

4. ACCOUNTING FOR THE MONEY LAUNDERING RISK AT THE BANKING PRODUCTS AND SERVICES LEVEL

Next in the full implementation of the risk-based approach should be the methodology for evaluation of banking products and services. In this case, again, the methodology has the character of a kind of scoring assessment that is applied to individual banking products and services. This assessment is to be carried out by the specialized units, which operate in the different banks to counteract money laundering – in collaboration with the department responsible for presenting and promoting the respective product or service. The assessment should be made at the time of the product creation. Looked at from this perspective, it is necessary that one seeks the assistance of the relevant development department involved in the product creation. Making evaluation before the start of sales of the product allows for timely adjustments to its design, which are supposed to reduce its vulnerability in terms of a money laundering risk.

Table 5 presents an exemplary range of a scoring system for evaluation of bank products and services. The table is divided into five parts, each of which includes five issues (criteria). Each issue is assigned a value ranging from 1 to 4 points. A lower value indicates a lower risk of money laundering. Where the relevant issue is not applicable to the product under assessment, a recalculation of the results is due to be made in order to make assessment that is proportional to the number of the applicable issues. The total number of points can be a maximum score of 100 (assuming that each of the issues is applicable). Rating points are subject to modification in accordance with the specific activities of the individual bank. Three groups are introduced in the example:

1) 0 to 30 points - low money laundering risk;
2) 31 to 60 points - medium money laundering risk;
3) 61 to 100 points – an increased risk of money laundering.

Table No 5 Scoring System for Assessing Bank Product / Service

<table>
<thead>
<tr>
<th>№</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Does the product require execution of cash transactions (payments, withdrawals, transfers)? (yes - 4 points; no – 0 points)</td>
</tr>
<tr>
<td>1.2</td>
<td>What will be the frequency of these operations? (less than once per month — 1 p.; more than one time in months - 2 p.; several times a week — 3 p.: There may be all these situations - 4 p.)</td>
</tr>
<tr>
<td>1.4</td>
<td>Is it lawful authorization to third parties within the cash operations accompanying the product? (yes - 4 p.; no – 0 p.)</td>
</tr>
<tr>
<td>1.5</td>
<td>Maximum permitted amount of cash payments / withdrawals (in BGN or equivalent in another currency): less than 10 000 (1 p.; from 10 000 to 30 000 units (2 p.); over 30 000 units (4 p.).</td>
</tr>
</tbody>
</table>
### Part 2 Identification

<table>
<thead>
<tr>
<th>№</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>II.6</td>
<td>Requirement for customer identification <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>II.7</td>
<td>Requirement for client file <em>yes - 1 p.; no - 4 p.</em></td>
</tr>
<tr>
<td>II.8</td>
<td>Period of storage of the collected information:</td>
</tr>
<tr>
<td></td>
<td><em>(over 5 years — 1 p.; under 5 years — 2 p.; under 1 years — 4 p.)</em></td>
</tr>
<tr>
<td>II.9</td>
<td>Requirement for specimen signatures: <em>yes - 1 p.; no - 4 p.</em></td>
</tr>
<tr>
<td>II.10</td>
<td>Ability to initially order the product without a physical presence in the office <em>(for example through e-banking)</em> <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
</tbody>
</table>

### Part 3 Clientele

<table>
<thead>
<tr>
<th>№</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>III.11</td>
<td>The product will be offered to customers or non-customers?</td>
</tr>
<tr>
<td>III.12</td>
<td>Is there a requirement for proof of income? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>III.13</td>
<td>Is there a requirement for copies of supporting documents – employment, contract invoices paid bills, etc.? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>III.14</td>
<td>The product will only be available at special clients, whose employers bank has concluded a cooperation agreement? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>III.15</td>
<td>Is there a requirement for mandatory payment of remuneration in a bank account?</td>
</tr>
</tbody>
</table>

### Part 4 Product Features

<table>
<thead>
<tr>
<th>№</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV.16</td>
<td>Does the product / service link up with other products / services offered by the bank? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>IV.17</td>
<td>Does the product / service require the existence of a bank account? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>IV.18</td>
<td>Transfer operations related to other banks (including abroad)? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>IV.19</td>
<td>Is it possible to use the product for purchase online environment? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>IV.20</td>
<td>Is it possible for remote operation of the product including its closure? <em>(for example through e-banking)</em> <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
</tbody>
</table>
5. REPORTING THE RISK OF MONEY LAUNDERING AT THE LEVEL OF INTERNAL CONTROL PROCEDURES

The risk-based assessment of the internal control procedures is based on the operation of the internal control in a particular banking organization and defining certain activities as being more sensitive to a money laundering risk as compared with other. The method of audit selectivity employed in the work of the bank internal auditing can be successfully combined with the practice of risk reporting of the individual sensitive procedures. Procedures defined as sensitive may be more strongly represented in the selective audits carried out, by increasing their share in the total sample of activities and operations being a subject to revision.

The following exemplary table below includes a sample of some of the major sensitive activities within the banking sector, which are applied in the permanent control as well as by whom and in what time period the audit should be carried out. The list is not exhaustive and does not represent all the sensitive procedures audited within individual banking institutions.

<table>
<thead>
<tr>
<th>№</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV.21</td>
<td>Does it require collateral? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>IV.22</td>
<td>Potential term commitment to the bank as a result of purchasing the product / service? <em>(not gives rise to such – 4 p.; 1 year - 2 p.; over 1 year – 4 p.)</em></td>
</tr>
<tr>
<td>IV.23</td>
<td>Does the product figure in the range products / services are intended only for VIP clientele?</td>
</tr>
<tr>
<td>IV.24</td>
<td>Does the product / service characterize with higher costs (interest, fees, commissions) compared to similar products in competitive banks? <em>(yes - 1 p.; no - 4 p.)</em></td>
</tr>
<tr>
<td>IV.25</td>
<td>Type of service: <em>(not typical bank service -4 p.; typical bank service - 1 p.)</em></td>
</tr>
</tbody>
</table>

### Table № 6 Sensitive Activities in the Banking Sector

<table>
<thead>
<tr>
<th>Sensitive procedures</th>
<th>control period</th>
<th>Responsible units and employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client files</td>
<td>monthly</td>
<td>responsible officer private / corporate customers</td>
</tr>
<tr>
<td>Opening / closing and operations accounts</td>
<td>monthly</td>
<td>responsible officer private / corporate customers; back office</td>
</tr>
<tr>
<td>Inactive customer accounts</td>
<td>quarterly</td>
<td>back office</td>
</tr>
<tr>
<td>Cash transactions</td>
<td>monthly</td>
<td>back office</td>
</tr>
</tbody>
</table>
### Cheques

<table>
<thead>
<tr>
<th></th>
<th>frequency</th>
<th>responsible officer</th>
</tr>
</thead>
<tbody>
<tr>
<td>quarterly</td>
<td></td>
<td>private / corporate customers within the unit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implementation of measures to combat money laundering</th>
</tr>
</thead>
<tbody>
<tr>
<td>quarterly</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Credit activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>quarterly</td>
</tr>
</tbody>
</table>

### 6. CONCLUSION

The specific applicable systems for management of the risk of using the financial system for criminal purposes are developed by each organization for itself, according to the specific profile of their customers and the transactions performed by them. There is no universally applicable guidance to implement the objective formulated, one which could be used by all economic agents, supervisory or governmental institutions and organizations. A bank makes different business transactions and operations, as compared with a person providing legal services or an estate agent or a tax adviser. Furthermore, each bank has a specific profile of its customers and a preferable market segment of banking services. But this specificity is based upon particular, universally applicable criteria that measure the extent of differences and evaluate the resulting risk and the deviation from the accepted normal levels.

The common adoption of the three levels pointed out–of the risk-based approach (customer authentication, bank products, and internal controlling procedures) may be treated as an offer to form a comprehensive strategy for prevention of money laundering in the banking system. Conducting a comprehensive policy in this respect is also a prerequisite for a higher efficiency and reliability in the use of different preventive practices and mechanisms. Risk-based attitude to prevention of money laundering may also be considered as an innovative moment in the overall attitude of the banking business to the accompanying risks, whereby the classical (traditional) scenario for risk management are subject to a renewal in accordance with the challenges of the environment.

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THE IMPACT OF THE WORLD FINANCIAL CRISIS 2007+ ON
THE COMPETITIVE POSITION OF A NATIONAL ECONOMY ILLUSTRATED
WITH THE EXAMPLE OF POLAND
Katarzyna B. Czech
University of Economics in Katowice

Abstract

In the contemporary world economy the development of the international competitiveness of economies determines the benefits that the countries can reap from the participation in the international division of labour. It also affects their ability and motivation to achieve sustainable economic growth.

The recent financial crisis has prompted the necessity of reformulating the strategies aimed at the achievement of economic goals in national economies. Difficult market conditions cause that all the economic actors need to make adjustments, the effectiveness of which may be reflected in the change of the competitive position.

The analysis of the selected measures of Poland’s competitive position in the years 2007-2012 indicates that Poland enjoys a relatively strong position, which implies a comparatively modest influence of the 2007+ crisis on its competitiveness. Moreover, the country has good prospects of attracting Foreign Direct Investment (FDI).

Key words: the competitive position of an economy, exports, imports, Foreign Direct Investment (FDI), economic growth, investment attractiveness

INTRODUCTION

In the contemporary world economy the development of the international competitiveness of economies determines the benefits that the countries can reap from the participation in the international division of labour. It also has an impact on their ability and motivation to achieve sustainable economic growth.

The recent financial crisis has prompted the necessity of reformulating the strategies aimed at the achievement of economic goals in national economies. Difficult market conditions cause that all the economic actors need to make adjustments, the effectiveness of which may be reflected in the change of the competitive position.

The study aims to analyse selected factors determining the competitive position of an economy based on the example of Poland’s economy during the crisis lasting since 2007.

The primary thesis is that, in principle, the global economic crisis has not affected Poland’s competitive position adversely. The analysis comprises the period of 2007-2012\(^{18}\).

The study uses descriptive and comparative analysis.

\(^{18}\) The scope of the analysis – data from 2011 to 2012, depending on their accessibility
1.1 The competitive position and the competitive potential of a national economy – the characteristic

The concept of competitiveness remains a fuzzy notion, as defined both on the level of international organizations and by particular authors (Gorynia, Łaźniewska 2009). The difficulty with the unambiguous definition of competitiveness is confirmed by Kitzmantel, who argues that competitiveness is like any other human quality, that everybody strives for, but is difficult to define and even more difficult to achieve (Reilian, Hinrikus, Ivanov 2000).

Competitiveness may be approached at the micro-, mezo- and macroeconomic, i.e. national, levels. The notion of the international competitiveness of a national economy is defined as:

- the ability of an economy to benefit from the participation in the international division of labour to the largest possible extent, preferably more than partners (Misala 2005);
- the ability of a country to achieve long-term, effective growth under open economy (Bienkowski 1993);
- the ability to achieve dynamic economic growth and produce goods and services which are in demand on the global market in the conditions of a free and reliable market, while at the same time providing citizens with a real increase in personal income in the long term (Stankiewicz 2002);
- the ability of a country to create added value and, consequently, increase national wealth both through the efficient management of resources and processes and attractive and pro-active policies, while accounting for global and local factors and integrating them into a coherent socio-economic model (IMD 2005);
- the degree to which a country generates, while being and remaining exposed to international competition, relatively high factor income and factor employment levels (OECD 1997).

These definitions confirm the multi-faceted nature of the international competitiveness of a national economy.

Macroeconomic competitiveness may be analysed in terms of competitive potential, i.e. factor competitiveness, and the competitive position of an economy. The basic measures defining the competitive position of an economy and its changes comprise the ability to sell, measured by a share in global trade, the ability to attract investment measured as an annual volume of inward FDI and its accumulated value, the ability to adjust, reflected by structural changes in production and exports, and the ability to earn measured by real GDP and GDP per capita growth rates (Hunya 2001).

1.2 Changes in GDP as a measure of the competitive position of an economy

An important element in the assessment of competitive potential affecting the competitive position of a country is the rate which reflects the growth in domestic product contributing to a country’s increased wealth. The concept of domestic product seems to closely correspond with the production output in an economy. Moreover, income paid out, adjusted for changes in value of money and presented ‘per capita’, indicates certain changes in welfare within societies (Kuznets 1934). The changes of this index are also one of the basic indicators which are used to assess the economies of particular countries, especially

19 The definition of competitiveness proposed by OECD was adopted by the European Commission (Pelkmans, Jacques, Chapter 3. European Industrial Policy, Bianchi, Labory, International Handbook on Industrial Policy, 2006)
under volatile economic conditions. The real GDP growth dynamics in selected regions presented in Figure 1 confirm the known fact of a sudden slump in GDP growth in the eurozone economies. On the other hand, in the years 2007-2008 Poland enjoyed GDP growth significantly higher than the global average. In the years 2010-2012 Poland and the world experienced similar changes in GDP. These figures might imply that the growth in real GDP positively affected the competitive position of the Polish economy in the analyzed period.

In national income accounting, an important value used in the analysis of its impact on a country’s competitive position is also GDP per capita expressed as purchasing power parity (PPP). The comparison of this index for Poland, the EU and the world in the years 2010-2012 reveals significant differences. Despite the fact that all EU member states were taken into account, including Poland, GDP per capita in Poland was much lower than the average for the EU as a whole (Table 1). As the EU member states represent the group of developed countries, this measure definitely does not have a positive effect on improved competitiveness of Poland’s economy. On the other hand, GDP per capita steadily grew in Poland in the analysed period.

Figure 1: Real GDP growth for Poland, the UE and the world in the years 2007-2012

Table 1: GDP per capita (PPP) in million USD

<table>
<thead>
<tr>
<th></th>
<th>World</th>
<th>EU</th>
<th>Poland</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>11 900</td>
<td>34 300</td>
<td>19 700</td>
</tr>
<tr>
<td>2011</td>
<td>12 200</td>
<td>34 700</td>
<td>20 500</td>
</tr>
<tr>
<td>2012</td>
<td>12 400</td>
<td>34 500</td>
<td>21 000</td>
</tr>
</tbody>
</table>

The analysis of the figures indicates that the national income account has a varied impact on the change in the competitive position of Poland in the analysed period.

1.3 Poland’s share in global exports

A significant decrease in the economic growth rate, observed particularly in 2008 and 2009 (Figure 1), and a slump in domestic demand, characteristic of an economic slowdown, are reflected in lower demand for imports. Consequently, exports dynamics in the countries involved in the exchange may falter.

In these circumstance the above-average increase in Polish exports in 2007 compared with corresponding figures for the EU and the world seems to be particularly significant, which is also reflected by the figures in Table 2. It is also notable that in the next years goods exports dynamics has not diverged greatly from dynamics in the EU-27 and the world.

<table>
<thead>
<tr>
<th>Poland’s share in global exports</th>
<th>Goods exports dynamics in % compared with previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Poland</td>
</tr>
<tr>
<td>2007</td>
<td>0.99</td>
</tr>
<tr>
<td>2008</td>
<td>1.10</td>
</tr>
<tr>
<td>2009</td>
<td>1.10</td>
</tr>
<tr>
<td>2010</td>
<td>1.00</td>
</tr>
<tr>
<td>2011</td>
<td>1.03</td>
</tr>
</tbody>
</table>


The analysis of the figures in Table 2 indicates a slight increase in Poland’s share in global exports of goods and its stable share in the exports of services in the years 2007-2011. On average, Poland ranks between 20th and 30th place among global exporters of goods and services. Consequently, we may say that Poland’s share in global exports does not significantly contribute to its improved competitive position. On the other hand, the fact that Poland maintained or even slightly increased its share in global exports during the world’s economic crisis may be seen as a positive factor contributing to the improvement of Poland’s competitive position, especially in the coming years.

This positive trend is definitely related with Poland’s EU accession. In 2001, Poland’s share in global goods exports amounted merely to 0.58%, whereas in 2004 it raised to 0.81% and in 2006 to 0.91% (WTO 2012). The favourable effect of Poland’s EU membership on our share in global goods exports was not hampered by decreased demand for exports, an immediate consequence of the financial crisis, which may corroborate the positive influence of this factor on the competitive position of the Polish economy.
The analysis of Poland’s international trade reveals that it plunged in 2009, while at the same time its negative balance was reduced due to a more dynamic decrease in imports than in exports, which is connected with high import intensity of Polish exports (Figure 2). It is notable, however, that a significant decrease in exports dynamics, reported in 2009, was slightly lower than for the world and the EU member states, which is particularly important due to the EU’s significance as Poland’s trade partner.

Based on the presented data, we may conclude that Poland improved its market position and, consequently, its competitiveness, which might prove that the world economic crisis did not reverse the positive trend in this area.

1.4 Poland as an FDI capital importer as a result of investment attractiveness

A country’s attractiveness for foreign investment is shaped by a number of factors, which may be classified in the following groups (Karaszewski 2005):

- demographic and geographical factors;
- socio-political factors – the political stability of an economy, rules and regulations on foreign investment entry and activities, the structure and practices of the markets, competitiveness policies, fiscal policies, privatization policies;
- economic factors – the size of a market, consumer preferences, income per citizen, an inflation rate, the indebtedness of a country, workforce (availability, costs, qualifications), commodities, technologies, resources, research and development expenditure;
- business environment-related factors – favourable investment climate, investment incentives, investment risk levels, corruption, social facilities, the administration, operating conditions of foreign enterprises, infrastructure.
The assessment of an economy’s attractiveness for foreign investment as a component of building the competitive position involves the analysis of such figures as annual FDI inflows and their share in global inflows. Another important element in this analysis is the share of accumulated FDI in a national economy compared with the global figures.

From the perspective of the Polish economy, it is also worthwhile to compare FDI figures for Poland with such figures for the EU as a whole, as EU investors play a dominant role as those undertaking direct investment in Poland. Moreover, new EU member states have become a kind of competition for Poland when we consider the ability to attract FDI.

The analysis if Poland’s FDI share in global FDI inflows indicates that this ratio changed in the years 2000-2011. In 2000-2004 Poland’s share grew steadily to reach 1.74% in 2004 (UNCTAD 2006). In 2008, when the crisis was already unfolding, it declined, which can be associated with a weakened ability to attract FDI and decreased competitiveness of the Polish economy compared with other countries as investment targets. Similar fluctuations affected Poland’s share in EU’s FDI inflows, although the scale of the share is several times larger (Table 3).

Moreover, in the years 2007-2001 Poland’s share in accumulated FDI also fluctuated, which might indicate the worsening in the competitive position of the Polish economy (Table 3).

In terms of the attractiveness factors discussed earlier, Poland seems to be one of the most attractive markets for FDI among the European countries, in particular the new EU member states.

This conclusion is shared in the Report on investment attractiveness, compiled by Ernst & Young (E&Y 2012). In the opinion of 840 investors, Poland ranked second among the most attractive European countries in terms of investment decisions to be made in the coming years. The Report strongly emphasizes a stable macroeconomic situation in Poland, which may have a favourable effect on the competitive position of the country. It also concludes that Poland’s increased investment attractiveness is accompanied by a reverse trend for Central and Eastern Europe as a region, the attractiveness of which is declining.

If the qualitative change in FDI targeting Poland, discussed in the Report, is accounted for, it may significantly contribute to a positive shift towards a stronger competitive position of the Polish economy. On the other hand, A.T. Kernay (2012) is more critical about the Polish economy and its attractiveness for foreign investment. Poland moved down from the 6th place in 2010 to the 23rd in 2012. It is notable, however, that in 2007 the managers of the largest international companies ranked Poland on the 22nd place, so the economic crisis did not cause a decline in the attractiveness of the Polish economy, which may be interpreted as an optimistic signal for the future.

The ability to attract capital is also affected by external conditions. Undoubtedly, the investment activity of multinational companies, which are the most important foreign direct investors, declines during the economic slump. Also, smaller companies scale down their foreign operations in the times of a crisis. In the years 2009-2010, this was reflected by a number of divestments which resulted in significant redundancies in many foreign investment projects conducted in Poland. Table 3 presents selected divestments implemented by foreign investors in Poland in 2008-2010. It shows that divestment decisions led to 6260 redundancies and the investors which made such decisions represented mainly the automotive sector and came from both Europe and outside Europe (see Table 3). This trend adversely affects the competitive position of the Polish economy.
### Table 3: FDI inflows by region and economy 2007-2011 (in m USD and in %)

<table>
<thead>
<tr>
<th>Region</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>1,975,537</td>
<td>1,790,706</td>
<td>1,197,824</td>
<td>1,309,001</td>
<td>1,524,422</td>
</tr>
<tr>
<td>EU</td>
<td>853,966</td>
<td>542,242</td>
<td>356,631</td>
<td>318,277</td>
<td>420,715</td>
</tr>
<tr>
<td>Poland</td>
<td>23,561</td>
<td>14,839</td>
<td>12,932</td>
<td>8,858</td>
<td>15,139</td>
</tr>
</tbody>
</table>

% Poland’s share in global FDI inflows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Poland</th>
<th>EU</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>0.82</td>
<td>2.73</td>
<td>Source: <a href="http://unctadstat.unctad.org/TableViewer/tableView.aspx">http://unctadstat.unctad.org/TableViewer/tableView.aspx</a></td>
</tr>
<tr>
<td>2009</td>
<td>1.08</td>
<td>3.62</td>
<td>Source: <a href="http://unctadstat.unctad.org/TableViewer/tableView.aspx">http://unctadstat.unctad.org/TableViewer/tableView.aspx</a></td>
</tr>
<tr>
<td>2010</td>
<td>0.67</td>
<td>2.78</td>
<td>Source: <a href="http://unctadstat.unctad.org/TableViewer/tableView.aspx">http://unctadstat.unctad.org/TableViewer/tableView.aspx</a></td>
</tr>
<tr>
<td>2011</td>
<td>0.99</td>
<td>3.59</td>
<td>Source: <a href="http://unctadstat.unctad.org/TableViewer/tableView.aspx">http://unctadstat.unctad.org/TableViewer/tableView.aspx</a></td>
</tr>
</tbody>
</table>

### Table 3: Selected divestments of foreign investors in Poland announced in the years 2008-2010

<table>
<thead>
<tr>
<th>Company</th>
<th>Country of origin</th>
<th>Sector</th>
<th>Number of redundancies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amtek Europe Development SA</td>
<td>Singapore</td>
<td>electronics</td>
<td>130</td>
</tr>
<tr>
<td>Autoliv Inc.</td>
<td>Sweden</td>
<td>automotive</td>
<td>90</td>
</tr>
<tr>
<td>BTX Group A/S</td>
<td>Denmark</td>
<td>textile and clothing</td>
<td>360</td>
</tr>
<tr>
<td>Coroplast Fritz Müller GmbH &amp; Co. KG</td>
<td>Germany</td>
<td>automotive</td>
<td>180</td>
</tr>
<tr>
<td>DSG – Canusa GmbH/ ShawCor Ltd.</td>
<td>Germany/Canada</td>
<td>processing of plastic materials</td>
<td>80</td>
</tr>
<tr>
<td>Groupe Chantelle</td>
<td>France</td>
<td>textile and clothing</td>
<td>800</td>
</tr>
<tr>
<td>Groupe Lapeyre SA/ Saint Gobain</td>
<td>France</td>
<td>processing of plastic materials</td>
<td>230</td>
</tr>
<tr>
<td>IAC Group</td>
<td>Sweden</td>
<td>automotive</td>
<td>240</td>
</tr>
<tr>
<td>Leoni AG</td>
<td>Germany</td>
<td>automotive</td>
<td>900</td>
</tr>
</tbody>
</table>
Perfetti Van Melle SpA  Italy  foods  180
Remy International Inc.  USA  automotive  230
RR Donnelley & Sons Company  USA  printing  340
Sumitomo Electric Wiring Systems Europe Ltd.  Japan  automotive  900
Takata Corporation  Japan  automotive  990
Teva Group  Israel  pharmaceutical  610


On the other hand, Poland benefits from investment involving the relocation of operations to our country, which might indicate that the reduction in the competitiveness of the Polish economy, showed by the figures analysed earlier, is not so significant. Table 4 presents the projects which involved the decisions to divest in other countries, mainly in the United Kingdom, and relocate to Poland, made by companies operating mainly in the electronics and foods sectors.

Table 4: Selected foreign investment projects involving relocation to Poland from other countries in the years 2008-2010

<table>
<thead>
<tr>
<th>Company</th>
<th>Country of origin</th>
<th>Sector</th>
<th>Country of divestment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acer Inc</td>
<td>Taiwan</td>
<td>logistics/IT</td>
<td>UK</td>
</tr>
<tr>
<td>ArjoHuntleigh/Getinge Group</td>
<td>Sweden</td>
<td>pharmaceutical</td>
<td>UK</td>
</tr>
<tr>
<td>Associated British Foods plc</td>
<td>UK</td>
<td>foods</td>
<td>UK</td>
</tr>
<tr>
<td>Autoliv Inc.</td>
<td>Sweden</td>
<td>automotive</td>
<td>no data</td>
</tr>
<tr>
<td>Cadbury plc</td>
<td>UK</td>
<td>foods</td>
<td>UK</td>
</tr>
<tr>
<td>Dell Inc.</td>
<td>USA</td>
<td>electronics</td>
<td>Ireland</td>
</tr>
<tr>
<td>GlaxoSmithKline plc</td>
<td>UK</td>
<td>pharmaceutical</td>
<td>France</td>
</tr>
<tr>
<td>Hempel A/S</td>
<td>Denmark</td>
<td>chemicals</td>
<td>Denmark</td>
</tr>
<tr>
<td>Husqvarna Group</td>
<td>Sweden</td>
<td>mechanical</td>
<td>Sweden</td>
</tr>
</tbody>
</table>
The ability to attract FDI described with the measures presented above may indicate that they have a varied impact on the competitiveness of the Polish economy. Positive prospects, however, reinforce the desirable effect of this impact in the coming years.

CONCLUSION

The current financial crisis has again highlighted the threat resulting from a significant decline in economic growth for national economies irrespective of the overall level of development that they have
achieved. Any crisis, however, tends to trigger changes which should lead to improved resistance of national economies. The positive or negative consequences of these changes are always reflected in the shifts of the competitive position of a particular country.

The analysis of the selected measures of Poland’s competitive position in the years 2007-2011 indicates that this position is relatively good. This is confirmed by only a slight impact that the crisis has had on the worsening of the measures such as a share in global trade or FDI inflows.

The improvement in Poland’s competitive position in the analysed periods is also visible in international competitiveness rankings, in particular compared with other EU member states. This is due to strong economic bonds within the European Union and the development level of the EU economies, which are listed among the most developed economies in the world. According to the IMD World Competitiveness Yearbook 2012, in the years 2008-2012 Poland’s position in the EU went up from 22 in 2008 to 14 in 2012, whereas the Global Competitiveness Report compiled by the World Economic Forum (2012) ranked Poland 22nd in 2008 and 15th in 2012 within the EU.

The study leads to the general conclusion that the Polish economy has improved its competitiveness, in particular in comparison with the EU. It is significant that investment climate in Poland is considered favourable and that the structure of inflowing capital is changing, which should lead to increased FDI inflows, in particular in the aftermath of the crisis, the period which is usually characterized by a considerable rise in investment activity. As a consequence, we can predict not only Poland’s improved competitive position, but also a growth in its competitive potential.

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THE MAIN DIRECTIONS OF NATIONAL INNOVATION CLIMATE DEVELOPMENT

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Abstract

Innovation and innovation economy is a matter of increasing debate. To address this issue we take triadic goals (the essence of innovation – cross countries analysis of innovation - direction of innovation economy development). We also explore how innovation in economy is used in different countries. We focus on Russian case and then develop our research over the most innovative countries.

This paper adds in understanding of unseparatable chain: innovation progress- enterprises development - economy rise and how the governments can modify the economy towards the innovation development by using mentioned in this research tools.

Key words: innovation, innovative economy, features of innovation, innovation climate

1. INTRODUCTION

A global process changes towards an innovation economy is evident. Today, in all developed countries a major part of GNP consists of variety innovation production - see for example Spohnr and Kwan et al (2011). One of the key points in innovation is an advancement in technology that has supported the development or production and services on the high innovative level, increase its profits and gives more taxes for the country. The further development of the world economy will be determined by high-tech and innovative industries (Kristen 2012).

Conducted by UNCTAD in 2012 year, the analysis of the international trade structure and investment flows shows that over the last 10 years the investments are amplified in countries with innovation activity. At the same time there are increasing debates on the issue of innovative economy features and approaches to develop them even on government level.

Obviously, modern innovative economy is a new technological level, including the existing productive forces of society, their penetration into all spheres of society life, strengthening of the scientific impact and innovation activity, education, science-intensive technologies. Taking into account these aspects, we can provide the following distinctive features of the innovative economy (table. 1 Thompson, V. A. etc)
Table 1. Distinctive features of the innovation economy.

<table>
<thead>
<tr>
<th>Features</th>
<th>The sense of the features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources</td>
<td>Information, human capital (knowledge and qualification of the media), education, information technology.</td>
</tr>
<tr>
<td>The regularity</td>
<td>The economic law of increasing returns</td>
</tr>
<tr>
<td>Subject</td>
<td>Small and medium-sized enterprises are concentrated on the stage of «search» perspective directions of technological challenge. Large enterprises - development principally new products and technologies, creation of new industries and spheres of consumption in emerging markets</td>
</tr>
<tr>
<td>The infrastructure</td>
<td>Internet, communication, finance, trade, educational networks, outsourcing.</td>
</tr>
<tr>
<td>The sources of financing</td>
<td>Venture capital Fund, the securities markets of high-tech companies, pension funds, corporations and individual investors</td>
</tr>
<tr>
<td>Perspective directions</td>
<td>Information and communication technology, biotechnology, genetics, nanotechnology, space activities, new materials etc.</td>
</tr>
</tbody>
</table>

Hence, by creating these features the authors came to a conclusion that the innovation economy naturally should include an evaluation of all stages of the innovation cycle and related processes.

In the practice way there are various indicators that evaluate the level of innovative economy. At the same time the universally recognized concepts of innovation economy evaluation is still remain in the dark. To light this problem, the authors make a suggestion to use the uniform concept that consists of several indicators. This concept is starting with an assessment of the human capital indicators that measure knowledge development. The scientific and technical progress indicators and the individual indicators of the stock market linked with innovation. On the other hand, the evaluation of the innovation economy naturally should include changes of all innovation cycle stages and related processes. The various international organizations develop their own system of indicators reflecting the level of the innovation economy development. To make innovation level more comparative between different countries and to construct the uniform recommendations for the country innovation development in this research we use these indicators:

1. The index of scientific and technical potential (the «technology index»), as a component of the integral index of assessment of the country competitiveness level;

2. The innovative activity indexes proposed by the European communities Commission, used for the comparative analysis of the evaluation for the innovation activity development in the countries of the EU;

3. Published annually by the OECD indicators, characterizing the level and dynamics of development of innovation economy in certain developing countries

This paper takes innovation economy perspectives and explores innovation in economy, which is highly important for the most governments and international organization’s development.

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2. APPROACHES, TOOLS AND GOALS

The paper is organized as follows. We start with methodology description. Then we give a brief literature review over the innovation definition. Then the final section is the conclusion of the study.

2.1. Paper’s goals

Thus, derived from the above discussions over innovation-economy connection and for the purpose of answering how to improve the country innovation climate, followings sub-questions will be dealt with more or less separately throughout the article:

First, clarify the definition of innovation.

Secondly, to present the analysis of Russian and foreign experience in the field of creation the favorable conditions for innovative activity.

Third, on the basis of the conducted analysis, to present the main directions of the national innovation climate improvement under the present economic conditions.

2.2. Research objectives and methodology

Case based research is recommended when little is known about the phenomena, or the current perspective seems inadequate (Eisenhardt, 1989, VcCutcheon & Meredith. 1993). And when the aim is to understand the process by which specific relationships develop over time (Dubois and Gadde, 2002)

Reviewing the Literature will be one of the fundamental items to construct the research work. There is a growing interest in issues related to innovation in economy, different approaches, definitions etc. The innovation was shaded deeply by Araugo L. and Spring M. (2009), MacCutcheon and Meredith (2004), D., Richards, F. & Jacobsen, D. Harnessing (2005) Pitt M., Koufopoulos D. (2012). But innovation and its pure definition is still based on scientific debates. And there is only a limited literature on innovation economy within intercountries analysis.

Qualitative research strategy in innovative economy features will be based on date collecting with the date analysis of national statistic offices and official organization. The combined collection and analysis of data is one that combines induction with deduction (Strauss 2007, 12-13).

To obtain more precise results, in this study we carry out the procedure of quantities analysis.

Hypothesis there are close interconnection and effect of the enterprise innovation activity and the level of innovation economy development. We implied the random sample method.

The authors observe and record the behavior of enterprises analyzing their innovation sides during a 3 year period from 2009 year to 2012 year.

This survey covered 56 Russian enterprises, which work in different branches, with different form of ownership and different sizes. In light of the above and in order to identify the innovation features according to different enterprises needs, we proposed the following items our questionnaire. Also the authors conducted personal interviews, the survey by phone and e-mail.

Objective of the questionnaire - to establish the main obstacle of innovation involvement into production process and the consequence between enterprise innovation activity and the economy's innovative level in the country.

Was compiled a questionnaire aimed to identify obstacles in the way of innovations development and its connection with innovation economy development.
3. LITERATURE REVIEW

3.1. Innovation definition

To highlight the innovation importance in economic field, it is generally estimated that innovation is the key factor for economy development in each country. It seems that the definition of innovation is still remains in dark. The development of new technology and its influence on economic development highlighted the need for clarifying the definition of «innovation».

Currently, the number of terms are used which fall under the definition of «innovation». It should be emphasized that in the scientific literature there are many definitions of innovation, often markedly different from each other.

In general, many researches come into a point that innovation is always connected with the progress. At the international level to harmonize the definition of «innovation» in the economy was undertaken the definition given by the Organization for economic cooperation and development (OECD) in the preparation of the Guidelines, adopted in Oslo in 1997 year. According to this document, innovations include new products and processes that have been developed with the introduction of technologies and significant technological improvements in products and processes.

For the first time the concept of innovation was introduced in 1911 year by Y. Schumpeter. He outlined the innovation definition like the concept of "implementation of new combinations". This concept includes the following directions (Schumpeter, 2007, p. 132-133):

1. Construction of the new, i.e. still unknown to consumers, good or creation of a new quality of one or another goods.

2. The introduction of a new, i.e., the industry is still largely unknown, the method of production, the basis of which could be not a new scientific discovery, which can also be in the new way of commercial use of the corresponding product.

3. The development of a new market, i.e. the market, which is still, has not been presented in the country.

4. To receive a new source of raw materials or semi-finished products, notwithstanding whether this source existed before, or simply not taken into consideration.

5. The reorganization, for example the provision of a monopoly position or undermining the monopoly position of the other enterprises.

At the same time, addressing to the innovation, it is necessary to divide economic processes in the evolutionary (irreversible) and wavy (reversible). Evolutionary processes, connected with the changes, which are not influenced by the impact. Undulatory processes depend on the development of innovation (Kondratyev, 2002; Sukharev, 2004). Secondly, the emergence of wavy processes is influenced by changes in technique and technologies (Simmie, 1986). Different approaches to Innovation and its definition are collected in the table 2.
Table 2. Innovation definitions.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Definition of «innovation»</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mohr, 1969</td>
<td>successful application of new tools and methods in the situation</td>
</tr>
<tr>
<td></td>
<td><em>keywords: new tools and methods</em></td>
</tr>
<tr>
<td>Thompson, 1965</td>
<td>production, adoption and use of new ideas in the processes in order to produce products and services</td>
</tr>
<tr>
<td></td>
<td><em>keywords: new ideas</em></td>
</tr>
<tr>
<td>Guidelines, adopted in Oslo in 1997</td>
<td>include new products and processes that have been developed with the introduction of technologies and significant technological improvements in products and processes.</td>
</tr>
<tr>
<td></td>
<td><em>keywords: new product and process</em></td>
</tr>
<tr>
<td>Smits, 2002</td>
<td>successful combination of equipment, technologies and organizational resources in the context of a particular social or economic model</td>
</tr>
<tr>
<td></td>
<td><em>keywords: new combination of equipment</em></td>
</tr>
<tr>
<td>Rogers, 2004</td>
<td>an object, idea or action, which are perceived by the consumer (human or organizational structure) as a new</td>
</tr>
<tr>
<td></td>
<td><em>keywords: received from consumer</em></td>
</tr>
<tr>
<td>The concept of innovation policy of Russian Federation 2011</td>
<td>the final result of the innovative activity which has received implementation in the form of a new or improved product sold in the market, new or improved technological process, used in practical activities</td>
</tr>
<tr>
<td></td>
<td><em>keywords: implementation in new form</em></td>
</tr>
<tr>
<td>M.A. Fedotova and A.M. Kamalov, 2010</td>
<td>radically new technologies and products that are designed to make a revolution in the market</td>
</tr>
<tr>
<td></td>
<td><em>keywords: new technology</em></td>
</tr>
<tr>
<td>S.N. Mazurenko, 2011</td>
<td>idea, that includes the development of new technology and as a result - creation of new product, competitive in the market</td>
</tr>
<tr>
<td></td>
<td><em>keywords: new technology and new idea</em></td>
</tr>
</tbody>
</table>

The approaches analyze lead to an interesting result, that there are various definitions and different authors identify innovation differently.

Hence, having made the complex analysis of definitions, authors set out to an understanding, that to make the innovation - the new idea was embodied in the form of a new product; it should have the scientific and technical novelty and economic efficiency.
4. CROSS COUNTRIES ANALYSIS OF INNOVATION DEVELOPMENT

4.1. Russia

Nowadays, almost two decades, the Russian economy, following the classical scheme of transitive process from a planned to a market economy, passes three stages: privatization; capitalization; innovations.

At the first stage, for the majority of enterprises, the market work for the decrease in accordance with rule: “the cheaper the enterprise, the better”. As a result, many enterprises were the new owners for a very nominal price.

At the second stage - the new owners direct the efforts on the capitalization increase of their possessions and many businessmen have realized deception exit at the third stage - the lack of funds for innovation.

The third stage is one of the key priorities of the state economic policy in the innovation field.

To illustrate the investment activity in the innovation in this research we used the data of the UN Conference on trade and development (UNCTAD). The authors came to a conclusion, that from 2000 to 2012 years. the foreign direct innovation investment in the country BRIX increased more than in three times. If, in 2000 year, these date collect 6 % of the direct foreign investments of the world, then in 2012 year - 20 %. The share of China - 46 %, Brazil - 25 %, Russia - 17 %, India - 10 %, the Republic of South Africa - 2 % (World Bank. 2012).

From the position of the innovation activity prospects, it is the matter of interest to analyze the Cumulative rating of the World Bank, indicating in which country it is easy to be an entrepreneur. It is calculated annually (World Bank, 2012), according to such factors as: the speed and complexity of the company registration, licensing, the ease of hiring and firing employees, difficulties with the registration of the ownership, credit access, investor protection, tax law, the possibility of international trade and the number of problems at the closing of the enterprise. All these indicators related to the degree of state interference in the work of private companies. So, for example Russia during a 3 year period, from 2009 to 2012 years, dropped in the ranking from 118 to120th position and today between Cape Verde and Costa Rica (World Bank, 2010-2012).

State regulation and administrative barriers remain the main obstacle for the development of innovations, claim the experts of legal company Grant Thornton International on the basis of the survey 5700 companies in 39 countries (Фаляхов Р., 2012).

The authors within the presented research put forward the idea to develop a questionnaire and interviewed 56 Russian enterprises. Enterprises were selected by random sampling. The analysis of the obtained data shows that the largest obstacle for the innovations development at the enterprises is the bureaucratic procedures. The results of the 56 Russian company’s survey pointed out the following results: for the bureaucracy in the country complains - 58%, for the administrative problems complain about 55%. The result of survey received form the managers of the companies surveyed and demonstrated on Fig. 1.

The authors investigated that according to Fig. 1, the bureaucracy is the main obstacle in the way of innovation development. While the tax costs aren’t so considerable obstacle in comparison with other presented on Fig. 1 points.

Further, to deeper the investigation of the research results, the authors decided to divide the received results (on Fig. 1) between some Russian regions. The regions were selected by the random sampling
and all key points (Fig. 1), were used fully in these survey. The result of region random survey is demonstrated on Fig. 2.

**Fig. 1.** The range of obstacle for innovation involvement in Russian companies (on the result of the Russian enterprises survey).

**Fig. 2.** Obstacles of innovation development according to Russian regions (on the date of the survey)
Thus, the representative sample of the cities surveyed demonstrated, that the most significant obstacle for the innovation development was found in Novosibirsk (63.2%). In Moscow this figure is also high - 42.1%. In Saint-Petersburg and Nizhny Novgorod, was 35% and 33.3%, in Yekaterinburg - 15%.

So, in the absence of evidence to the contrary we can suggest on the base of received results that there is a close connection between innovation involvement into enterprises and innovation level of the region development.

In turn, the results of the world Bank studies, Grant Thornton International, etc., present that the attempts of liberalization of relations between the authorities and business haven’t led to the desired results, and corruption of state went out in a number of key threats to the innovation development in Russia (World Bank, 2012, Grant Thornton International, 2012).

Also the negative trends in the Russian innovation sphere illustrated by the results of the author’s analysis of statistical data of organizations that include innovations in its activity (the research was given in the 2 years period, from 2000 year to 2012 year) The survey revealed that over 2 years, the number of organization carrying out research and development has been reduced to 14% (table 3) which directly affected the deceleration of innovative development in the country.

Table 3. The number of organizations carrying out research and development in Russia


<table>
<thead>
<tr>
<th>years</th>
<th>2000</th>
<th>2005</th>
<th>2008</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>All organizations</td>
<td>4059</td>
<td>4099</td>
<td>3566</td>
<td>3682</td>
</tr>
<tr>
<td>including:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>scientific-research organizations</td>
<td>2284</td>
<td>2686</td>
<td>2115</td>
<td>1782</td>
</tr>
<tr>
<td>design Bureau</td>
<td>548</td>
<td>318</td>
<td>489</td>
<td>364</td>
</tr>
<tr>
<td>design and design-survey organizations</td>
<td>207</td>
<td>85</td>
<td>61</td>
<td>38</td>
</tr>
<tr>
<td>pilot enterprises</td>
<td>23</td>
<td>33</td>
<td>30</td>
<td>49</td>
</tr>
<tr>
<td>educational institutions of higher professional education</td>
<td>395</td>
<td>390</td>
<td>406</td>
<td>581</td>
</tr>
<tr>
<td>scientific-research and design departments in organizations</td>
<td>325</td>
<td>284</td>
<td>231</td>
<td>280</td>
</tr>
<tr>
<td>other</td>
<td>277</td>
<td>303</td>
<td>234</td>
<td>588</td>
</tr>
</tbody>
</table>
Fig 3. The dynamic of innovation involvement into organization process

Fig 4. Innovation in economy sectors (the random survey of Russian enterprises)
Applying quantitative analysis, the authors have used the random sampling method under the sectors of the Russian economy, conducted a study of the innovation activity. Also, within undertaken research the Internet materials have been investigated, conducted a review of the literature, as well as in every sector of the economy were taken the survey. The results of the innovation activity analysis by the direction of Russian economy sectors is presented on Fig. 4

The researches revealed the glaring discrepancy between innovation level and economy sector in Russia. For example it is noteworthy that the highest level of innovation was found in oil industry, while the education sectors in Russia has one of the last level.

Public opinion polls conducted by the authors showed that the most interesting areas of the innovation development from the point of view of private investors in Russian are: technical achievement (43%), medicine (40%), Internet-technologies (24%), space (18%).

Simultaneously, observing the innovation, it is necessary to pay attention to the situation in scientific sphere of Russia; in order the full analysis of all innovation’s indicators would be given.

![Fig. 5. Research and development expenses in % to GDP](image)

The result of official statistic date, presented on Fig. 5, showed, that the number of personnel engaged in research and development of innovation for 15 years has decreased on 30%. If we look at the quality of financing of the national scientific sphere aimed at innovation, we see that the internal Russian costs on research and development as a percentage of GDP lag behind the average European. GDP of the United States is about 20%, the EU - 23%, Russia has reached only 3% of world GDP (Россия и страны мира, 2012).

At the beginning of this article, we mentioned the main indicators of the innovation development, so to receive a complete picture as a next step of the research we analyzed the dynamic of patents for inventions. In our opinion, this indicator is most clearly shows the scale of scientific sphere backlog in the state in comparison with the world's leading countries. The reason of this analysis is to give a comparison of countries according to its costs for research and development as a percentage of GDP,
the specific weight in the total number of publications in journals indexed in WEB of SCIENCE, as well as the number of patented inventions in 2011 year (table 4).

Table 4. Countries according to the cost for innovation

<table>
<thead>
<tr>
<th>Country</th>
<th>Research and development expenses in % to GDP</th>
<th>Specific weight in the total number of publications in journals indexed in the WEB of SCIENCE</th>
<th>Patenting of inventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russia</td>
<td>1.16</td>
<td>1.76</td>
<td>29999</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1.76</td>
<td>6.87</td>
<td>5594</td>
</tr>
<tr>
<td>Germany</td>
<td>2.82</td>
<td>2.71</td>
<td>13678</td>
</tr>
<tr>
<td>France</td>
<td>2.25</td>
<td>4.62</td>
<td>9899</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.19</td>
<td>2.26</td>
<td>3251</td>
</tr>
<tr>
<td>Canada</td>
<td>1.81</td>
<td>4.24</td>
<td>19120</td>
</tr>
<tr>
<td>U.S. A.</td>
<td>1.77</td>
<td>5.28</td>
<td>135110</td>
</tr>
<tr>
<td>China</td>
<td>3.26</td>
<td>28.79</td>
<td>222693</td>
</tr>
</tbody>
</table>

To constrict the full picture of innovation economy development we tried to sum up the innovation indicators of different countries.

Fig. 6. Patenting of invention in different countries
Having carried out the analysis the research lead to interesting result: most European countries are far away from the top 3. The mutual result corresponds that headliners has revere approaches and methods of innovation development. Sometimes they could be viewed as almost contradictory. Simultaneously as analysis shows, the creation of favorable conditions for the implementation of innovative activity is one of the priorities tasks for all headliners - Japan, USA, Germany and China.

Also the investigated result showed that Russia is in the early stages of the development of the innovation process and in conditions of the ongoing financial and economic crisis.

Thus, in the nearest future, Russia should not only increase the volume of financing of the scientific sphere and the transparency of decision-making in order to support innovative projects, but also to ensure the effective implementation of advanced developments. These steps, in our opinion, will allow Russia to implement in the shortest time possible transition from the export-raw material to the innovation model of economic growth.

As world experience shows, the creation of favorable conditions for the implementation of innovative activity is one of the priority tasks of the state policy of USA, Japan, China and Germany and other developed countries. In turn, the stimulation of innovation activity serves as a mechanism for implementing the strategic objectives of the state innovation policy.

So, the next taken step in this research is to concentrated in the observation of innovation development and the experience of the countries - participants of «the Big eight» (the United States of America, Japan, Great Britain and Germany), as well as China in the field of realization of national innovation policy.

4.2. USA

American scientist W. R. Hambrecht identified three key that determined the USA technological leadership and made the largest contribution to the development of American innovation sphere (Hambrecht W. R., 1984):

- immigration of outstanding scientists and engineers from Europe in the 1930s
- large investments in public research and development after the Second world war;
- the appearance of the first venture capital firm, in 1946 there was reflected a growing desire for commercialization of technologies developed in the state research institutes.

The United States is one of the first countries focused its attention on the innovation potential of the small business. The Program to support of small innovative business took the beginning in 1982 y. Among the well-known U.S. firms received funding through this Program of support can be called such as Apple, Compaq, Intel, and others. The Program of support not only initiated the entry of representatives of the scientific community in the business environment, but also became the main source of the enterprises financing created by scientists. And as a result, many of the companies’ founders received the support through this Program. Moreover, the financial aid of this Program has had a significant encouraging effect on the other scientists in the same institution. One of the strengths of the program and a key factor of its success is the decentralization of decision-making on financing, distributed in 11 Federal agencies (Lerner, J. 2002). Ten years after the beginning of this Program in the United States was adopted the Law on technology transfer in small business, in accordance with which the stimulation of public-private partnerships for commercialization of new technologies was approved. The annual volume of financing makes more than one hundred million dollars. Every year the support
of innovative activity of small business in the USA have allocated more than 5 billion US dollars from
public funds and 935 million US dollars out of the private sector (Mustafin M.A. 2010).

Besides mentioned all above these programs, another important instrument in the development of
innovative activity in the U.S. is the tax incentives applied in the various States in relation of private
investment into innovation. The tax credit provided by the insurance companies for investments in
«certified financial company», is 100-120% of the invested amount and payment over a 10-year period.
In turn, the «Certified financial company» is a commercial organization that provides venture capital
financing to local companies, that creates new jobs. This program was born in Louisiana State in 1983
year and has been introduced in many States, since the late 1990 years.

The financing structure of all developments and innovations in the U.S. approximately process the
following proportions:

- 35% from the Federal budget (about $ 200 billion);
- 60% the expense of own production companies means;
- 5% the funds of the state governments, of local self-government (Mustafin M.A. 2010).

Innovative policy of the United States quite well illustrate the statistical indicators of the countries of
the «Big eight» (Rossiya i strany mira. 2012):

- the second place by the volume of expenditure on research and development in the calculation of the
GDP - 2.9;
- first place in terms of its share in the total number of publications in journals indexed in WEB of
SCIENCE - 28.79;
- the second place by the number of patented inventions - 219614.

4.3. Japan

After the Second World War, Japan was not only able to quickly restore the national economy, but also
in the minimal terms entered into a number of world business leaders. The research showed, that mainly
it happened, because it was adopted the Basic law on science and technology, laid the foundations of
modern innovation policy.

Starting from the 90-ies of the twentieth century, the business in Japan have started the development of
a new strategy of innovative development, aimed on increase of innovative efficiency.

In the framework of this strategy there have been major reform of state administration - from 23 to 13
reduced the number of ministries and departments. So, for example, the Ministry of education and the
Office for science and technology were merged into a single Ministry of education, culture, sports,
science and technology. The newly formed Department became responsible both for fundamental, and
for applied research.

In 1995 year, the Basic law on science and technology was adopted, that laid the foundations of modern
innovation policy. Since 1996 year «Basic plans for the development of science and technology» became
the main means to ensure the consolidation of efforts in the innovation sphere. There are the follows
principled positions:

- A significant increase in public spending for innovation;
• The main efforts of the state should be concentrated on promoting diversified interdisciplinary fundamental research;

• Selection of priority research areas with the subsequent structuring of the significant trends within these areas.

In addition, an important role in the innovation system of Japan is assigned to the national universities. In 2004, the universities were incorporated and have become self-sufficient economic units, as a result the majority of Japanese universities involved in the joint ventures with the private sector research. As a cause of this reason the effectiveness of the education system reform lead Japan to the highest position in the world rating of patents, publications in scientific journals, as well as, that the overwhelming number (75-80%) of scientific works in the universities and colleges.

Since 2007 year, the Ministry of education and science has started realization of the program of international research construction centers, highlighting its work on multi-disciplinary and multi-disciplinary areas, such as life sciences, material science, electronics and computer science, physics, mathematics, etc.

Thus, among the main components of the corporations innovation policy can be called:

• sharp increase in the number of partnership agreements in the field of innovation companies, located outside of the traditional vertically integrated production associations and industrial groups;

• more than before, the use of scientific-research partnerships and strategic alliances with foreign companies;

• the strengthening of cooperation on the basis of the joint projects of the private sector with universities and public research institutes, both in Japan and abroad.

The innovative policy of Japan quite well illustrated by the statistical indicators of the countries of the «Big eight» (Russia and countries of the world, 2012):

• first place in the volume of expenditure on research and development in the calculation of GDP - 3,26;

• the fourth place in terms of its share in the total number of publications in journals indexed in WEB of SCIENCE - 5,28;

• first place in the number of patented inventions - 222693.

4.4. United Kingdom

The development of innovations in the UK for many years shows the correctness of the chosen strategy. The government not only creates favorable conditions for innovative enterprises, but also allocates considerable funds to the increase in the number of innovative enterprises.

The oldest program, aimed at maintaining the small business, is a Scheme of guaranteeing the loans of small companies, created by the Department of trade and industry. The program was created in order to correct this situation on the market, when the small enterprises with extremely promising business proposals could not obtain financing because of the inability to secure it. So, from June 1981 year to March 2005 year, was issued 97 thousand guarantees in the total amount of 4.2 billion pounds sterling (Industrial Development Act 1982: Annual report (March 31, 2005)). In December 2005, the Program has changed the focus of its activities and focused on the support of new enterprises.
In 1994 year started working Scheme of investing in the company, created to assist the mobilization of capital for certain types of small high-risk commercial companies that are not registered on the stock exchanges. Under this scheme, the investors will be provided to certain conditions, reductions in income tax and capital gains tax. The program, designed to solve the problems of the enterprises, working in the field of scientific research.

At the same time the establishment of business centers in the universities of Great Britain has influenced deeply in innovation development and had three main objectives to:

• encourage the commercialization of research and new ideas of the high level;
• contribute the development of scientific entrepreneurship culture at universities in the UK;
• centralize the way to implement the training in the basics of entrepreneurship in the educational plans of the scientific and technical disciplines of educational institutions of the United Kingdom.

In 2005 year, the programmer changed the focus and became the act on payment of costs for entrepreneurship education into the curricula of all profiles. In the same year was put in operation the programmer to capital creation for enterprises with a total budget of 200 million pounds sterling. These funds, invest a combination of private and public money in a small fast-growing businesses that require equity financing of up to 2 million pounds sterling. The main objectives of the programmer are to strengthen the inflow of private capital in the share of the enterprises by improving the risk.

In the summer of 2007 year, the Department of innovation, universities and skills was created, which is responsible for development and implementation of the national innovation policy. A newly established Department brought together a number of divisions of the former Department of trade and industry and the Department of education and competences. As for the innovation sphere, the Department got the opportunity to more deeply investigate the potential of firms for the development and practical use of knowledge (http://www.dius.gov.uk/innovation).

In March 2008 year, the White book «Innovation nation» (Innovation Nation White Paper) was published. This event marked the creation of long-term innovation strategy of the United Kingdom. In this program document proclaimed the main innovation task of the government, The goal is to create the most attractive country in the world for innovation business and public services (Toprauskas A., 2007).

Among the main steps on the way of the national innovation strategy, can be named the followings:

• the establishment of a new Fund aimed to encourage the development of professional staff training in cooperation with the business;
• development of agencies with public procurement-oriented innovations;
• development of regional initiatives innovation vouchers for establishing contacts between the business and research organizations;
• the creation of new networks and laboratories for innovation in the public sector;
• organization on the basis of the University sector Center research innovation for the measurement and analysis of innovation processes.

The innovative policy of Great Britain could be adequately characterized by the statistical indicators of the countries of the «Big eight» (Россия и страны мира, 2012):

• the sixth place by the volume of expenditure on research and development in the calculation of GDP - 1.76;
4.5. Germany

At the beginning of the 80-ies of XX century, Germany, had taken the steps to establish the strategy of industry development. In this connection the scientific-research and innovation activity were playing for small and medium business rather significant role. The main purpose for German companies was broad and rapid application of new or improved production equipment and technologies, materials and software. It should be noted that, in Germany, prior to the beginning of the 90s, the main role in the implementation of the policy of innovation and technology belonged to the Federal Fund. However, today, in this area there are semi-public and private institutions, funds, workers of the partnership of the research organizations in the industry. A significant part of the functions in this field also took on the European Union.

In August 2006 year in Germany was approved the Strategy of innovative and technological development, which is an integrated software document, that defines the main directions of action in the national innovation sphere and instruments of their implementation. Also the Strategy defines new priorities of Germany in the technological sphere with the account of world tendencies of development of science, engineering and technology. The strategy identified 17 key sectors which are significant for the national economy. The German government has initiated a number of special programmers, which will be implemented in the framework of strategic partnerships within large companies and research teams. It is planned, that the business sector mobilizes for these purposes additional funds.

One of the important results of the strategy was the creation of innovative alliances and strategic partnerships. As a rule, the innovative alliances unite the company with the same technology platform. Currently six innovative alliances are formed - in the field of energy, electronics, optics, and biomedicine.

The innovative policy of Germany is good enough to illustrate the statistical indicators of the countries of the «Big eight» (Россия и страны мира, 2012):

- the third place by the volume of expenditure on research and development in the calculation of GDP - 2.82;
- the fourth place in terms of share in the total number of publications in journals indexed in WEB of SCIENCE - 6.71;
- third place by the number of patented inventions - 13678.

4.6. China

The economic system market building was initiated in 1978 year. Using the experience of Japan, Taiwan, Singapore, Hong Kong and South Korea, for almost a third of a century, China has shown itself as an effective agricultural business country, which made a bet on innovation policy, in which one of the leading roles is played foreign capital.

In the framework of the course for creation of innovation economy, China has adopted a series of national plans for scientific and technological development, including «the Program of the medium-term and long-term development of science and technology during 1990-2020 years.»; «863 plans» - work in the sphere of high technologies; the program «Fakel» - aimed to the development and
commercialization of high technologies on the basis of modern industry; the program «Spark» - introduction of high technologies on suburbs enterprises and the program «Climbing» - maintenance of priority of fundamental research.

Since 1998 year, the Academy of Sciences of China takes the beginning of realization of «the Program of knowledge and innovations». The main idea of programs was to reduce the number of scientific research institutes in the framework of the Academy from 123 to 80, and increasing the funding of the remaining institutions. In this case, as shows us statistics, the financing of science in China is constantly growing: in 1995 year - 10461.5 million dollars and 2008 year - 121426.5 million dollars. Also significantly increased the staff of scientists: in 1995 year - 751700 people and in 2008 year - 1965357 man (Россия и страны мира, 2008, 2012).

In 2002 year, China adopted a national law on innovation policy, in accordance with which the national plan of innovative development is divided into three stages. So, by 2010 year, the country has created an innovative system. Up to the year 2020 the eleven basic directions of the scientific-technical progress is obliged to leave on a world level, and 3-5 positions in each directions take the leading place in the world science. And by 2050 years, in the country must be created the knowledge economy.

A zone of technical-economic development plays a serious contribution to the development of innovation in China. At the end of 1984 year was created the first special economic zone, and today there are already 49. These zones have received considerable investment and tax incentives to promote attraction of foreign investments and technologies.

Also very interesting the way to use the Internet for attracting foreign capital to the country. For example, on pages of the state site «Regions of China» (the address in a network the Internet http://www.china.org.cn/russian/75042.htm), a potential investor can not only get acquainted with the detailed socio-economic characteristic of this or that region, but also to examine the legal basis of the attractiveness of capital investments (tax benefits, deferred payment, etc.).

Innovative policy of China is well illustrated by the following statistical indicators in relation to representatives of the «Big eight» (Российский статистический ежегодник, 2012):

- the sixth place by the volume of expenditure on research and development in the calculation of GDP - 1.77;
- second place in terms of its share in the total number of publications in journals indexed in WEB of SCIENCE - 8.74;
- the third place by the number of patented inventions - 135110.

5. DECISION AND CONCLUSION

To highlight the innovation importance in economic field, it is generally estimated that innovation is the key factor for economy development in each country.

The innovative policy of leader’s countries was illustrated in this research by the statistical indicators of the «Big eight». Thus, the study of innovative development of the USA, Japan, and Germany allows us to make a conclusion, that these countries have copied the task to create favorable conditions for the implementation of the national innovation activity.
Table 6. The main indicators of innovation development in countries

<table>
<thead>
<tr>
<th>country</th>
<th>place in the volume of expenditure on research and development in the calculation of GDP</th>
<th>place in terms of its share in the total number of publications in journals indexed in WEB of SCIENCE</th>
<th>the number of patented inventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Japan</td>
<td>3.26 – first place</td>
<td>5.28- fourth place</td>
<td>222693- first place</td>
</tr>
<tr>
<td>USA</td>
<td>2.9- second place</td>
<td>28.79 – first place</td>
<td>219614- second place</td>
</tr>
<tr>
<td>Germany</td>
<td>2.82 third place</td>
<td>6.71 – fourth place</td>
<td>13678- third place</td>
</tr>
</tbody>
</table>

Nowadays we can clearly define innovation by the economy sectors and even by national economy trends. Having compared all mentioned above countries it seems that they have very little similarities among each other. Furthermore, they are distinct one from other by innovation approaches. But, we can presume that, taking together all trends and characteristic of innovation in analyzed countries, the research has allegedly come to very significant conclusion, that there is a possibility to establish uniform recommendations for development of innovative economy as follows:

1. In the early stages of the development of innovation activity and under the conditions of economic crisis, the scientific-technical progress can effectively be promoted through various government programs. However, to extent the positive results, the state participation should be reduced in favor of the non-state sector of the economy.

2. One of the most important factors of the innovation activity growth is taxes - the provision of tax benefits, tax credits, tax exemptions, the territories with preferential tax regimes, etc. can increase innovation involvement in economy.

3. Personal support for scientists so it can prevent “Brain drain” and the creation of a sufficient number of «incubators» for growing the intellectual elite.

4. Abroad licenses buying, but not for the completely ended-products as a means of improving the technical level. It is desirable to buy in order to use it for the encouragement of national innovation development. In this case, large industrial enterprises should be more actively provided by scientific state grants.

5. Strengthening the policy aimed to the protection of domestic innovation. The policy of protectionism first of all must protect domestic innovators.

6. Active attraction of foreign investments to the innovative sphere, but for the activity that is located on the territory of the state, and not outside it.

7. Support of the fundamental science of pilot studies, the creation of the new market needs, nurturing new industries and technologies, etc.

To sum up, the year 2014 is intended to be a more positive year for the innovation development. However, we can presume that without attention to the purposeful strategy of innovation development any country can run ahead. Apart from the common view the authors insists that it is necessary to use uniform steps aimed innovation development and apply it under the each country conditions. If we haven’t done this in consequence it is experienced difficulties when we would measure the result of innovation development.
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EVALUATION OF PRESENTATION SKILLS
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Abstract

Presentation skills are crucial for today's managers. No matter if one presents in front of a large audience or in front of a small group of people, presentation skills could either sell the idea or ruin the person. What are the skills which make a person a good presenter? Could everyone learn to present well? These are some of the questions which find an answer in this article.

We live in a dynamic time where the world and the business change with the speed of light. With the progress of digital technology, communication has become a lot dependent on them. The time people spend in front of the computer and in internet has drastically increased. At the same, the lack of direct physical contact and the fact that information is limited to messages, emails and electronic conversations and media, has inevitably made communication less emotional and more impersonal.

Being effective manager demands not only to follow the latest global trends in information technology. The main emphasis must be on the direct communication with the people within and outside the organization. One of the main tools in motivating people is facing each and every one, inform them, convince them, inspire them and be a role model. This however, needs excellent presentation knowledge, which is critical for the success of every manager and a leader nowadays.

The following article is a research on the presentation skills, based on professional literature and on the knowledge and experience of successful presenters. It focuses on the latest presentation practice in an organization. Sharing different views and opinions of leading presenters, the author’s goal is to show key skills needed for a successful communication.

The Objects of the study are leading authors, theoreticians and practitioners in presentations skills.
The Subject matter is the presentation skills.
The Goal is to identify key presentation skills for a successful manager and leader.

To achieve the goal, the author has set the following tasks:
- research and exhibit views of leading specialists in the subject matter;
- research on the practice of leading presenters
- identifying the key presentations skills

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20 Gates, B., C. Hemingway, Business @ the Speed of Thought: Succeeding in the Digital Economy, Business Plus, 2000
1. THE ROLE OF THE PRESENTATIONS SKILLS

Presentation skills are also called ‘soft” interpersonal skills and are part of our social skills.

We use them in our everyday life and they are affected by our believes, attitude and behavior an are subject to constant development and perfection.

According to M. Maletova they are integrated and their spectrum is in the range of organizational, communication and management skills to analyze and work as a team. In the context of pure communication these are social skills that lead to effective communication. Their role can be perceived as:

1.1. Better and more effective communication

Andrew Grove in his book “High Output Management” shares that he finds time to be the first lector in the series of presentations in regards to a professional orientation program, and this is very important for him. This way, he says, the top management shares in front of everyone in the company its goals, tasks, history, management system and its components. This is the natural way of sharing information and at the same time acts as a role model. Role model not only in the training process, but in the way he acts and shares the company values. This makes all colleagues feel being taken care of and the high level of understanding of their needs. He insists that the” two way communication and support” is the true style of the effective management and is based on mutual believes.

1.2. Perfection of company’s culture and motivation of workers and management

Edgar Schein says that “the leadership demands not only knowledge of the company’s culture but being able to intervene in the process of its own organization.” He thinks that a leader must know how to induce the cognitive consideration, formulate new vision and concept, convince the organization that what he says is the right thing, by highlighting, analyzing and changing the basic perception of the group. All this demands him to be a good presenter as well.

According to Schein, the paradox in company culture change is not only being able to show initiative, but to listen as well. To emotionally involve the group itself to find all cultural dilemmas, and to be in the center of the training and changing process. He has to work on motivational change, because he is responsible for achieving the company’s mission. In his definition of company’s culture, Schein stresses on the people’s strengths and abilities like knowledge, skills, habits, intellectual level, moral, philosophy, means and forms of communication. He believes that a more internally connected organization with open communication channels in every direction will perform better than the rest.

The management and leadership skills, style and strategy form the 7 “S” McKinsey model. According to him, in a long term, the successful change in company’s culture is closely linked to its perfection. Thus the development and the improvement of the presentation skills becomes a vital part of the management and leadership knowledge, and can contribute to the successful change in the company’s culture.

1.3. Increasing the competitive advantage

In their Competing Values Network, K. Cameron and R. Quinn, identify individual management skills and competences that are vital for the effective management development and perfection. According to them it is necessary to draw a profile of the management in order to identify which skills and competences need to be developed to improve the company’s culture. This process can contribute to the personal growth and development and help the management in its efforts to increase the competitive advantage.
2. PRESENTATION SKILLS: THEORIES AND PRACTICES OF LEADING PRESENTERS, AUTHORS AND EXPERTS IN THE FIELD

The ability to convince by using facts and reasons, known today as presentation skills, is not a result of the modern digital world. The foundations have been laid by the ancient Greeks, who have developed a discipline called “Rhetorics”\(^\text{21}\).

The fast development of the technology in the recent years and especially the digitalization of the economical and public processes, have brought a significant change in presentation tools used. This of course, has broadened the spectrum of the presentation skills as well. In order not to become “technology” victims, there is a need of a strong system of key and universal presentation skills and ways to develop them.

Many of the authors below are modern and successful business people or practicing training professionals in the area of presentation skills, such as N. Duarte, G. Kawasaki, K. Galo, G. Reynolds, Steve Jobs and more. Most of them are among the best in what they do. In the mean time we have to pay respect to Dale Carnegie who is among the most popular in the field.

All authors that are object of research in this article are united by the fact that “in order to become a good presenter we must not possess extraordinary skills. It is enough to develop our hidden strength”\(^\text{22}\).

Dale Carnegie gives some valuable directions for perfecting the presentation skills, sets clear rules in the communication with others and the way we can lead the auditorium in order to successfully position ourselves.\(^\text{23}\) He tracks down many speakers and to some extend helps them to become successful. He appreciates their presenters’ ability, finds something magical that gives the feeling of power and makes them proud of the success.

Here are some of the most important accents of the presentation skills and their perfection, mentioned in his bestseller: “How to develop self-confidence and influence people by public speaking?”\(^\text{24}\):

- Developing braveness and self-confidence;
- Thorough preparation – this will lead to increased self-confidence. According to him “the well prepared speech is 90% of the delivered speech”\(^\text{25}\);
- “Study and use the experience of famous speakers” – a good speaker has to estimate and think over everything well in advance – it is like the art of war;
- Better the memory – using the fact that the brain is mainly an “associative mechanism” (usually people break the natural laws of memorization);

\(^{21}\) Stringer, M., E. Toye, J. Rode and A. Blackwoell, Teaching Rhetorical Skills with a Tangible User Interface Computer Laboratory, University of Cambridge

\(^{22}\) Карнеги, Дейл, “Как да придобием самочувствие и да влияем на другите чрез изкуството да говорим пред публика”, изд. къща “Кибеа”, 2000

\(^{23}\) пак там

\(^{24}\) пак там

\(^{25}\) ibid.
The main conditions for a successful public speech are persistence and firm determination. The thought for success in the art of public speaking creates actions for achieving it;

Learn the secret of a good speech;

Stress on the personal qualities during the public speaking – the personality of someone is a lot more important in his/her business success than the deep knowledge. This is also valid when we speak of the art of public speaking;

Clear point of speech – there are four main purposes in every speech: (1) explanation of a question, (2) to make impression and to convince, (3) action, and (4) entertainment;

Creating interest in the audience – speak about things which interest the audience and not only the speaker. Interest and enthusiasm are contagious only if the speaker himself is interested and enthusiastic.

Improve the style - Carnegie points out four methods for interaction with the others: "We are judged by what we do, how we look like, what we speak, and how we speak it". Even if the speaker does not realize it every speech has one of the four purposes:

![Diagram of Aims of a Presentation](image)

Figure 1. Main purpose of the presentation

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26 Карнеги, Дейл, “Как да придобием самочувствие и да влияем на другите чрез изкуството да говорим пред публика”, изд. къща "Кибеа", 2000
Steve Jobs, a remarkable public speaker of our time, is presented in a very exciting way by the expert in communication skills Karmin Galo. Jobs is famous as one of the most successful and renowned communicators on the world scene. The author describes him as someone spraying dopamine in the brains of his listeners, and his performances as legendary and effective events. Steve Jobs had this powerful instrument in his hands and to great extend this determined the vitality of his company. He turned the usual technical monotonous slide-show into a theatrical performance full of characters and mind-blowing decors which create an amazing experience. From him we can learn a lot – how to create idea-messages, how to present ideas, how to create exciting atmosphere around a product, and how to create unforgettable experiences.

The book of Galo is a road map to success with extremely useful and practical advices and presentation skills. S. Jobs was a real showman and as all great actors he rehearsed until he got the ideal play. He thought that the presenter himself had to be criterion for quality, and some people are not used to be part of an environment where they are expected to perform at the highest possible standard. The presentations of Steve Jobs are compared to the famous Broadway performances because they consisted of all the elements needed to keep a strong emotional relationship with the audience. Galo shapes his book about Steve Jobs as an exciting play in three acts: I. Create a story; II. Create experience; III. Improve and rehearse. Every performance generates maximum publicity, fame and recognition. It consists of elements of a movie or a play – conflict, issue, culmination, heroes and evils. As the great movie directors he writes the scenario on a sheet before taking “the camera” in hands. Jobs worked over every detail including the stage lighting. He made what is recommended by the best presentation designers: began with the sheet of paper. He did not think that anything is understood by itself. He paid attention to the analog world of ideas before going into the digital presentation because this leads to more clarity and best results (adapted by G. Reynolds in “Presentation Zen”).

N. Duarte is a consultant of the US President Al Gore and remarkably improved his presentations. She is also famous because she made remarks on Guy Kawasaki’s presentation on art of innovation by working it over and explaining the corrections. The result is a new, a lot more impressive presentation. In her book “Resonate” she stresses on skills necessary to present:

- Presentations are related to change management;
- Presentations have to be intriguing and to draw the audience’s attention;
- Ideas have to be valued;
- The presenter has to be emotional and natural, and to use contrasts;
- The information has to be structured;

27 ibid.
28 Лазарев, Д., Продающая презентация, М.: Альпина Паблишер, 2008.
In her book “Slide:ology”, Duarte questions many of the requirements related to the creation of the slides and the information on them. She also says that IT should not be blamed when the presentation is not successful but the problem should be looked at the presenters’ skills. She pays attention to the creative process of the presentation creation and advises to constantly search for inspirational sources in art exhibitions, museums, movies, theatres, etc. She also thinks that it is important to make a psychological profile of the audience.

Kl. Nelke in her book "Making presentation" says that most of the presentations work as a “sleeping pill” and describes the “five deadly sins” when delivering a presentation: time frame (I will speak as much as I want); assessing the environment and the audience (I am just delivering a report on the subject); Ignoring the listener and their needs (No attention to the listener!); Improvise and improvise (Improvisation is the key to everything!); ego and superiority (I am better than the rest!).

G. Reynolds is an international communication consultant and author of "Presentation Zen". He goes through the process of preparation, presentation delivery and design, and gives valuable practical advises supported by examples of the “Zen” philosophy and art, and stimulates the unconventional thinking. According to him the design of leading the presentation with the audience has significant importance for the presentation success. He stresses on the simplicity and the emotional influence, and explains the importance of the slides, comments and distributed materials.

G. Kawasaki underlines the importance of good demonstrations as this leads to mastership in communication. According to him the good demonstration informs the auditory and inspires it for action. It does not cost much and can neutralize the marketing and advertisement of the competition.

Kawasaki describes five key characteristics of the successful demonstration: (1) it has to be short, (2) simple, (3) goal-oriented, (4) quick and (5) consistent. It is not coincidental that all Steve Job’s product presentations fulfill all these requirements.

3. KEY PRESENTATION SKILLS FOR THE MODERN LEADER AND MANAGER

In the information context and its use, we differentiate the following skills:

- Skill for clear, exact, correct and full presentation of the information according to the goals and criteria

31 Нёльке, К., Проведение презентаций.: Омега-Л, М., 2007 - 144 с.
32 ibid.
33 ibid.
34 ibid.
35 ibid.
36 ibid.
37 http://www.garrreynolds.com/introduction/
39 цит. от Галло, К. Презентация. Уроки убеждения от лидера Apple Стива Джобса / Кармин Галло; пер. с англ. Михаила Фербера. — М.: Манн, Иванов и Фербер, 2010
- Skill for clear, exact and specific formulation of goals
- Skills for presenting the information in logical sequence
- Skills for argumentation
- Skills for using different information sources and instruments
- Skills to separate facts from opinions
- Skills for clear position and personal attitude towards the presented information
- Skills for structuring
- Skills for transforming the information from visual to verbal and vice versa
- Skills for presenting the information using graphics, symbols, tables, etc.

Although the requirements, practice and advises of famous authors and presenters, stated in the previous part of the article are a result of different research methods and different pints of view, they have a lot in common and “talk the same language”. This allows us to bring out some specifics related with the technique and presentation style (Table 1).

Also, the separation of the presentation into separate parts allows us to give more detailed and clear directions for improvement in the planning process (Table 2).

### Table 1. Main aspects of the presentation techniques and styles

<table>
<thead>
<tr>
<th>Main aspects of the presentation techniques and styles</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perception of the presentation as an exciting performance</td>
<td>K. Galo, S. Jobs, N. Duarte, A. Jay</td>
</tr>
<tr>
<td>Create Създаване на месианско чувство за предназначение</td>
<td>S. Jobs, K. Galo</td>
</tr>
<tr>
<td>Strong ambition and determination to achieve the goal. Enthusiasm and energy of the presenter</td>
<td>A. Jay, D. Carnegie, B. Tracy, J. Kehoe, G. Reynolds</td>
</tr>
<tr>
<td>Preliminary planning of the speech and preparation of the presentation delivery</td>
<td>D. Carnegie, G. Reynolds, K. Galo, S. Jobs, B. Tracy, K. Nelke</td>
</tr>
<tr>
<td>Self-confidence and lack of fear (as result of the perfect preparation)</td>
<td>D. Carnegie, A. Jay, S. Jobs, K. Galo, G. Reynolds</td>
</tr>
<tr>
<td>Study and acknowledge the interests and needs of the audience. Keep contact with the audience. Feedback. Attract a participant from the audience. Candor and good tonality</td>
<td>D. Carnegie, A. Jay, A. Galo, , S. Jobs, G. Reynolds, B. Tracy, N. Duarte</td>
</tr>
</tbody>
</table>
Have a story – fresh, original, enthusiastic, relevant to the circumstances and the audience, as well as informative. Use and stress on facts, examples, analogies, numbers and ratios


Be bright, understandable, memorable, interesting but also modest, natural and fine


Use language and writing which are clear, short and grammatically correct. Avoid abstractions and slang language


Use body language


Use voice tonality, timbre, pace and word stress to make your voice your best friend and not your worst enemy

D. Carnegie, S. Jobs, K. Galo, Br. Tracy, R. Hall

No panic! Stage fright is something natural

D. Carnegie, R. Hall, Kl. Nelke

Dress smart and fine – this increases self-respect and improves self-confidence

D. Carnegie, Br. Tracy, Kl. Nelke

Empathize. Smile joyfully in front of the audience

Br. Tracy, D. Carnegie, K. Galo

Organize well the stage setting, ambience, lighting, and the presentation location

D. Carnegie, A. Jay, Br. Tracy, S. Jobs, K. Galo

Use demonstrations, audio-visuals and modern presentation technology

S. Jobs, Br. Tracy, K. Galo, N. Duarte, G. Reynolds, G. Kawasaki,

Simplicity is mighty! Simplify!


<table>
<thead>
<tr>
<th>Table 2. Presentation skills structure according to the researched authors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Author</strong></td>
</tr>
<tr>
<td>------------</td>
</tr>
</tbody>
</table>
| Dale Carnegie | - short beginning with not more than one or two sentences  
- stories have to be in place and to have a purpose  
- humor has to be the cake topping, not the cake itself  
- never apologies as this irritates the audience  
- say what you want to say, say it clearly and quickly get back on your seat | - create curiosity in your audience  
- use simple language to tell an interesting story  
- begin with a specific scene  
- ask a question  
- begin with some impressive quotation  
- show that your topic is inter related with some very important interests of your audience  
- begin with a shocking fact  
- do not begin too formally | - do not tell you are ending  
- make a resume, briefly go through and repeat the main aspects of the presentation  
- call for action  
- make a suitable compliment to your audience  
- make them laugh  
- quote some useful quotations  
- use Bible quotations  
- create a culmination |
The analysis of good practices of famous presenters and the literature review made it possible to bring out 16 key skills necessary for a successful presentation. These are stated in Table 3:

<table>
<thead>
<tr>
<th>№</th>
<th>Key presentation skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Skill for good planning, making a good scenario and a “road map”</td>
</tr>
<tr>
<td>2</td>
<td>Skill for selection and classification of the material, and shaping the content and the structure of the presentation</td>
</tr>
<tr>
<td>3</td>
<td>Skills of organizing the work environment and positioning</td>
</tr>
<tr>
<td>4</td>
<td>Skills for coping with stage fright and inconvenience</td>
</tr>
<tr>
<td>5</td>
<td>Skills for confident and convincing speaking, and for attracting and keeping the audience’ attention</td>
</tr>
<tr>
<td>6</td>
<td>Skill for communication with the audience, asking rhetoric questions and making discussions</td>
</tr>
<tr>
<td>7</td>
<td>Skills for strong argumentation using logic and emotional intelligence</td>
</tr>
<tr>
<td>8</td>
<td>Skill to simplify communication messages: systematization, simplification and removal of unneeded information</td>
</tr>
<tr>
<td>9</td>
<td>Skills to use metaphors, analogies, pauses, quotations, cases, and experiences in the speech</td>
</tr>
<tr>
<td>10</td>
<td>Skill for effective and aesthetic presentation of visual materials – captions, colors, fonts, designs</td>
</tr>
<tr>
<td>11</td>
<td>Skill for using tables, graphs, diagrams, illustrations, pictures, models and other, as well as their interpretation</td>
</tr>
<tr>
<td>12</td>
<td>Demonstration skills – for certain products</td>
</tr>
<tr>
<td>13</td>
<td>Skills for using different technical equipment – multimedia, flipchart, software, hardware, etc</td>
</tr>
<tr>
<td>14</td>
<td>Skills related to non-verbal communication – body language, eye contact, gestures, posture, facial expressions, dress style, hair style. These have to complement the presentation and to increase the respect of the audience towards the presenter</td>
</tr>
<tr>
<td>15</td>
<td>Skills for clear and understandable talking – suitable modulation, intonation, and voice timbre, adequate pausing, short sentences and titles, lack of slang language</td>
</tr>
<tr>
<td>16</td>
<td>Skill for cooperation and team work</td>
</tr>
</tbody>
</table>
CONCLUSION
Presentations help us influence the world around us no matter who we are. In business the presentation skills have even higher importance because they are integrative skills serving to form organizational, communicative, project and managerial skills which are the basis of success and effectiveness of managers and leaders.\(^{41}\)

In future all the analyzed in the article key presentation skills can be used as criteria for evaluation of presentation skills using the experts opinion method.

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CONCEPTUAL AND MATHEMATICAL MODELS FOR MANAGING SOFTWARE PROMOTION LIFE CYCLE

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Abstract

The following article describes the composition of software promotion program that uses Internet promotion tools. The authors distinguish main stages of promotion program development, formulate marketing and communication goals, offer wording and content of communication messages, and describe marketing communication tools and their possible use on various stages of customer response formation. An approach to selection of key performance indicators for software online promotion program planning is presented, which accounts the specifics of consumer decision-making process. Risk identification stages are examined, main risks connected with software promotion are presented. The article also mentions methods of qualitative and quantitative risk analysis, risk reaction planning and risk monitoring processes.

Key words: marketing communications, software promotion, Internet marketing, promotion program, media planning, marketing and communication goals, communicative message, web analytics, key performance indicators, risk management, software promotion risks

1. INTRODUCTION

Many factors account for the success of a company that develops both to-order and proprietary software products, one of which is their activity in the field of software promotion on the market, in particular, their choice of distribution media. Internet is one of such media. With its growing popularity and constant development, many methods of traditional, offline marketing, are now used in virtual space. This trend is evidenced by online advertising market increase. RIA Novosti agency reports, referring to Interactive Advertising Bureau, that in 2011, Russian online advertising market grew by 55% (RIA Novosti, 2012). Specialists favour Internet to promote software products due to its relative cheapness, high speed and interactivity of communication with target audience. Moreover, according to a research conducted by IDC Russia agency, online software sales increase more dynamically than offline software market – 70-75% growth rate versus 15-20% respectively (IDC Russia, 2010).

When organizing online software promotion, it is vital to rationalize and plan the promotion program – that is, to draft a plan of marketing activities that include the use of Internet marketing tools (such as search engine optimization, contextual advertising, media advertising, Internet PR activities, social media marketing, etc.). The key problem that can be encountered in the process of developing an Internet marketing program is insufficiency of information found in traditional marketing textbooks and monographs. Such books (Kotler, Keller, 2007, Romanov, Panko, 2006, Webster, 2005, Ibragimov, 2008, Paramonova, Krasuyk, 2008) do not reflect the specifics of applying Internet marketing tools to promote products. Various publications on Internet marketing expand general promotion principles, but
do not contain any relevant methodical recommendations on promotion, as evidenced by works of B. Halligan, A.B. Yurasov, B.S. Golik and I. V. Uspenskiy (Halligan, Shah, 2010, Yurasov, 2007, Golik, 2008, Uspenskiy, 2003). The goal of the article is to specify classic marketing theory on promotion program development by taking into account software features and use of Internet as the main channel of target audience communication.

2. PROBLEM DESCRIPTION

A.I. Kovalyov understands promotion as any form of messages used by a software company to inform, persuade or remind about its product (Kovalyov, 2002). From this point of view, a company must carry out a complex of marketing activities (also known as marketing communications) in order to promote software effectively. This complex, as stated by P. Kotler and K.L. Keller, provides interaction with market participants (customers and potential customers, partners, agents) and includes a number of various tools: advertising, sales promotion, PR and publications, personal sales and direct marketing (Kotler, Keller, 2007). When it comes to promoting software, the primary objective of marketing communications is to convey the principal competitive advantage of both the product and the company to its target audience, which, in turn, influences the consumer’s choice and use of the software.

Analysis of different approaches to developing a marketing communication program offered by P. Kotler, A.A. Romanov, F. Webster, L.A. Ibragimov and T.N. Paramonova (Kotler, Keller, 2007, Romanov, Panko, 2006, Webster, 2005, Ibragimov, 2008, Paramonova, Krasuyk, 2008), made it possible to present the process of developing a software promotion program as a sequence of the following steps:

- determining your target audience (target market segment) in order to focus marketing activities properly;
- formulating communicational goals, i.e., determining the desired reaction of target audience;
- formulating a set of communication messages;
- choosing the channels and tools of communication available both to the company and its target audience;
- developing mechanisms of control and efficiency evaluation of promotion program implementation.

The initial factor that triggers the development of product promotion program is a marketing goal. The marketing goal is understood as a specific result that needs to be achieved in the process of implementing a software promotion program in a certain period of time with limited resources by a software company. Marketing goals can be stated in terms of monetary or physical indicators that are directly connected with sales.

In terms of quantity, a promotion program marketing goal can be defined based on the breakeven point concept. At predetermined software market selling price, any firm wishes to define a minimum allowed number of sales necessary to cover first version development expenses and receive a set profit. This number of sales can be calculated using the following formula:
where \( x \) is the number of sales, \( s \) is market selling price of a product unit, \( a \) is the volume of fixed costs and \( b \) represents variable costs per unit.

Main compounds of fixed costs may include:
- administrative staff maintenance expenses;
- rent, housing and communal services;
- increase of fixed assets cost;
- software and hardware depreciation (including the cost of the first software version and of purchased system software);
- bank loan payments.

Costs are considered variable if they change proportionally to the number of sales, for instance:
- basic wage of marketing and sales department specialists (expressed as percentage of price of replicated product);
- unified social tax;
- components and expendables (ink cartridges, toner, paper, CDs and DVDs, etc.);
- marketing and sales department overhead costs (such as transportation, communication, Internet, telephone expenses, etc.);
- travel expenses.

Software features are described in a software technical certificate, which is the primary source of information necessary to phrase an ad description for a software, as stated by D.N. Baraksanov (Baraksanov, 2011). A software company may have limited resources. The number of clients that require software integration and maintenance in a specified period of time, estimated price range, software maintenance composition and terms of service need to be considered as resource limitations of a software company.

3. TARGET AUDIENCE IDENTIFICATION

The first step for developing a promotion program is to get a clear idea of target audience which can include potential and/or existing software consumers. In this article, we explore promotion of a product on a corporate market. The process of identifying your target audience consists, according to Y.P. Ekhlakov and D.N. Baraksanov (Ekhlakov, Baraksanov, 2012), of the following steps.

1) First, compile a list of companies that may potentially be interested in purchasing the software and perform macrosegmentation. Macrosegmentation is a process of dividing the list of companies into groups based on their demographic (that is, non-behavioral) features, like the company’s location, type of ownership, size, industry.
2) Assess and, consequently, choose one (or several) target segments based on its appeal. In this case, appeal is a function of segment size, the product’s competitive ability in the segment, concentration of competitors, integration and user support costs and segment’s accessibility in terms of customer service.

3) Finally, identify purchase decision makers and their buying preferences (this is, in fact, the process of microsegmentation), select groups of company specialists based on their behavioral attributes and buying preferences. Y.P. Ekhlakov states that end users, IT service specialists responsible for software installation, integration and support, and chief executive officers usually make purchasing decisions, taking into account the specifics of corporate software market (Ekhlakov, 2009).

Formalized market segmentation procedures are based on multidimensional object classification methods. Consumers who are similar in the type if consumer behavior are distinguished into one class. Degree of similarity among consumers in one class needs to be higher that the degree of similarity between consumers from different classes.

Multidimensional analysis methods are based on the concept of multidimensional objects. This is a statistical unit characterized by a set of values of variables \( x_i = \{ x_{is} \} \) \( s = 1, k \). Each attribute \( s = 1, k \) has a certain set of values. The degree of similarity between objects is defined as a distance between points of multidimensional space. If segmentation variables are described by quantitative parameters, degree of similarity between the objects is calculated using the formula of weighted Euclidean distance:

\[
\rho(x_i, x_j) = \sqrt{\sum_{s=1}^{k} d_s (x_{is} - x_{js})^2},
\]

where \( d_s \) — is a coefficient that defines weight (relevance) of characteristic \( s \).

If segmentation variables are described using nominal scale, when each characteristic \( s = 1, k \) take on a value of “yes” or “1” (in case properties of objects compared by a certain feature are completely opposite) or “no” or “0” (in case the properties coincide), the distance should be measured using Hemming formula:

\[
\rho(x_i, x_j) = \sum_{s=1}^{k} \left| x_{is} - x_{js} \right|.
\]

As it follows from (3), the distance between two objects defined in binary space equals to number of mismatches of values of corresponding attributes of the pairing \((x_i, x_j)\) under examination. Taking into account the information presented above, the mathematical model of consumer market segmentation can be formulated as the following. The market of potential customers is represented by a set of objects
Each object is described by \( k \)-attributes (or variables of segmentation). It is required to combine customers that are connected by a number of attributes. We need to determine matrix \( X = \{ x_i \} \), where \( i = 1, n \), \( j = 1, m \) and distribute the set of potential customers \( X \) by \( m \) non-empty non-overlapping subsets in a way that minimized the objective function

\[
Z(R(X)) = \min_{R \in \mathcal{R}(X)} \sum_{j=1}^{m} \sum_{x_i, x_j \in R_j} p(x_i - x_j)
\]

and abides the following system of limitations:

\[
\sum_{m=1}^{n} (Y_m \sum_{j=1}^{m} x_{ij}) = 1, \quad i = 1, n, \quad (5)
\]

\[
\sum_{i=1}^{n} x_{ij} \geq N, \quad j = 1, \sum_{m=1}^{n} Y_m m, \quad (6)
\]

\[
\sum_{m=1}^{n} Y_m = 1, \quad (7)
\]

\[
x_i = \{0;1\}, y_m = \{0;1\}, \quad (8)
\]

where \( x_{ij} \) equals 1 if object \( i \) belongs to segment \( j \), and \( y_m \) equals 1 if the number of segments equals \( m \). Limitations (5) – (8) mean that each object belongs to a segment, each segment contains no less than \( N \) prospective customers and the number of segments equals one of the values from \( \{1, 2, \ldots, m\} \) set.

Mathematical model (4) – (8) is classified as a Boolean programming problem of high dimension and can be solved with one of well-known heuristic procedures of multidimensional object classification.

4. SETTING COMMUNICATIVE GOALS

P. Kotler and K.L. Keller stipulate that every consumer goes through similar response stages in consecutive order when making a purchase decision (Kotler, Keller, 2007). These stages are cognitive, emotional and behavioral. Every stage is characterized by its own consumer response formation model that describes cause-and-effect relations of changes in consumer’s attitude towards the product.

We understand communicative goal as a definitive result achieved upon reaching a response of a certain quantity of target audience representatives to a complex of marketing communications implemented in a specific period of time under program budget limitations. A potential customer’s response changes depending on the stage, therefore, communication goals need to be set for each stage separately.
When raising awareness at the cognitive stage, a consumer learns about the product either by accident (in this case, the consumer is passive and receives the software company’s communication message), or as a result of his or her targeted search for a software. For this interaction stage communicative goal may be phrased as the following: “Achieve a certain level of target audience awareness about the software in a specified period of time”.

At the emotional stage consumers express interest in the software product and evaluate it, thus they behave more actively. Employees who make purchase decisions gather information to assess the new product and consider a possibility to use the software. They take into account their company’s specific situation (available infrastructure, staff qualifications, etc.) and aim to assess carefully every advantage and disadvantage of software deployment and use. At this stage, we can formulate the communication goal as the following: “Achieve a certain number of additional software information requests in a specified period of time”.

At the behavioral stage, the consumer tests the products and makes a purchase decision. At this point, the software company may want to provide a software demo or a full version with a trial period for the consumer to try. This stage is critical for making a decision about implementing and using the software, thus communicative goals should be formulated for each stage separately. The communication goal of this stage can be worded as “Distribute a certain number of software demos among the target audience in a specified period of time”. At this stage, the consumer concludes a contract with the software company and discusses delivery terms, composition and length of additional services. Such services may include software customization, user instruction, technical support, etc. Communicative goal of this stage must coincide with the marketing goal of the whole promotion program.

We have conducted a thorough analysis and summarization of works on efficiency evaluation of online software promotion (Deynekin, 2003, Vedrov, Petukhov, Alekseev, 2010, Virin, 2010). The summary presents a set of quantitative indicators that allow a specialist to describe the goals phrased earlier (Table 1). Integral characteristics of each of the goals can be defined as functions of these indicators.

### Table 1. Quantitative indicators for evaluating communication goal achievement as to response formation stages

<table>
<thead>
<tr>
<th>Stages of response formation</th>
<th>Quantitative indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>Ad exposure, ad reach, audience overlap, ad frequency</td>
</tr>
<tr>
<td>Emotional</td>
<td>Number of clicks, number of unique clicks, click frequency, number of unique visitors, number of visits, visit frequency, number of new visitors, page impressions, page nesting depth, average visit time</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Number of target actions (site registration, contact form sending, order placement, etc.), number of concluded contracts</td>
</tr>
</tbody>
</table>
5. CHOOSING STRUCTURE AND CONTENT OF COMMUNICATION MESSAGE

In this article, a communication message is understood as information transferred in the process of communication with potential customers in order to trigger a specific response.

P. Kotler and K.L. Keller stipulate that in terms of structure, messages can be one-sided and only describe software upsides, or two-sided and, in addition to upsides, contain information about weaknesses and deployment risks (Kotler, Keller, 2007). The order, in which the arguments on software advantages and disadvantages are listed, is essential. If the message is one-sided, it is best to place the strongest advantage argument first, as it will attract the audience’s attention and provoke interest. If the message is organized in a two-sided structure, it is necessary to mention both strengths and weaknesses of the software. This can be done, for instance, in comparison with competitors’ software characteristics. In this situation, it is advised to describe measures the developer plans to implement in order to eliminate negative characteristics.

E. Romat and I. Morozova conventionally define the following basic forms of communication messages (Romat, 2008, Morozova, 2003):

- slogan – a catchphrase, a short saying, a title, a tagline that precedes an advertisement message;
- opening sentence – the part of the addressing message that interprets the principal task or a problem that the software is meant to solve;
- information unit (body text) – the most informative part of the communication message that motivates the target audience representative the most and provides the information necessary for motivation;
- reference data, which generally includes company’s address, telephone numbers and information about other channels of communication, indication about availability of a full-function demo version of the product, software delivery cost, description and cost of related services, and so on;
- echo phrase may conclude the message, it repeats the meaning of the slogan or revoices the idea of the message.

As stated by Y.P. Ekhlakov, the exact content of each message form must be aimed to attract attention of different specialists of the consumer company that participate in the decision-making process (Ekhlakov, 2009).

6. COMMUNICATION MESSAGE DISTRIBUTION CHANNELS AND TOOLS

When taking into account high costs of traditional channels for communication message distribution (print media, radio, television, telephone, etc.), it is rational to use Internet as a channel of communication with your target audience in the process of software promotion.

In addition, depending on the stage of potential customer response formation and their buying preferences, various Internet marketing tools can be used in order to promote software online. These tools include, but are not limited to, media advertising, contextual advertising, Internet PR, partnership programs, social media marketing, search engine optimization, direct mail.

The choice of a specific set of instruments used to promote software has to be based on target audience characteristics, their expected response, quantitative parameters of communication goals, available
funds, and product lifecycle stages. We offer a set of promotion tools (Table 2) in relation to stages of response formation on software purchase decision based on recommendations of M. Penkovskiy (Penkovskiy, 2008).

Table 2. Response formation stages and relevant Internet marketing tools

<table>
<thead>
<tr>
<th>Response formation stages</th>
<th>Tools and instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive</td>
<td>Media advertising, Internet PR, social media marketing, search engine optimization</td>
</tr>
<tr>
<td>Emotional</td>
<td>Media advertising, Internet PR, social media marketing, search engine optimization, contextual advertising, partnership programs</td>
</tr>
<tr>
<td>Behavioral</td>
<td>Partnership programs, social media marketing, search engine optimization, direct mail</td>
</tr>
</tbody>
</table>

The task of determining a set of specific marketing communication tools for each stage of the promotion program can be presented as the following mathematical model. Let us assume the following:

\[ I = \{1,2,\ldots,n\} \] — a set of marketing communication tools;
\[ J = \{1,2,\ldots,m\} \] — a set of response formation stages;
\[ c_{ij} \] — cost of contact with a target audience representative using tool \( i \) on response formation stage \( j \);
\[ R_j \] — financial resources allocated to reach stage \( j \) of response formation;
\[ K_j \] — minimum number of contacts with target audience representatives on stage \( j \) of response formation;
\[ z_{ij} \] — contact efficiency indicator (also known as conversion of target audience representatives) when using tool \( i \) on stage \( j \) of response formation;
\[ x_{ij} \] — number of contacts with target audience representatives using the communication message of tool \( i \) on stage \( j \) of response formation.

It is required to determine the set \( X=\{x_{ij}\} \) while maximizing the following objective function:

\[ Z = \sum_{i=1}^{n} \sum_{j=1}^{m} z_{ij} * x_{ij} \rightarrow \text{max} \quad (9) \]

and abiding the following limitations:
Formulas (9) – (12) represent a whole-number task of linear programming and can be solved using such software as Linear Program Solver (LiPS), MATLAB.

7. RESULT CONTROL AND EVALUATION

Final step of developing a promotion program is designing processes and technologies of performance monitoring and promotion program efficiency evaluation. These processes should be based on analysis of planned quantitative indicators for both communicative goals and the ultimate marketing goal of the promotion program.

Monitoring of efficiency of the promotion program should be carried out for each of the quantitative indicators. This allows for synchronization of ad placement schedule, redistribution of funds among communication tools in use and correction of advertising platforms.

The final analysis of efficiency of promotion program implementation is carried out to gather empirical data that can be used as a source of predicted values for subsequent planning. When organizing monitoring, web analytics systems, such as Google Analytics, can be used to collect and store the necessary statistical data.

In the course of planning the promotion program it is necessary to develop the most effective and optimal plan of communication message placement. Planned values of quantitative indicators for communication goals are used as efficiency criteria, these indicators were presented in Table 1. In this case, optimality is the ability to achieve previously planned efficiency indicators with minimal expenses. Cost indicators of communication message placement must be used as indicators that reflect the amount of funds spent to achieve communication goals.

At the cognitive stage, $CPUI$ indicator can be used as a cost indicator for communication message placement. $CPUI$ is defined as cost of a thousand unique demonstrations and is calculated as such:

$$ CPUI = \frac{C}{UI} \times 1000, $$

(13)

where $C$ is the cost of ad placement and $UI$ is the number of unique displays.

For emotional and behavioral stages it is more logical to use indicator $CA$, or cost of performing a target activity, as a cost indicator. It is calculated using the formula:
\[ CPA = \frac{C}{A}, \quad (14) \]

where \( C \) is ad placement cost and \( A \) is the number of target activities performed (such activities include clicks, viewing of a certain number of pages, demo version download, etc.).

These indicators need to be calculated when planning and optimizing the communication message placement plan (or media plan), factoring in estimated values of quantitative indicators for communicative goals. It is also required to monitor the indicators in the process of carrying the promotion program out, which allows, if necessary, to alter and correct the media plan. During the final analysis of promotion program implementation, communicative goal indicators planned earlier are compared to indicators calculated in the implementation process. The goal of the final analysis is to not only to come to a conclusion about the promotion program efficiency, but to collect empirical data that will be used for subsequent plans. Web analytics systems facilitate the process of measuring the indicators or elements required for their calculation.

8. RISK MANAGEMENT IN SOFTWARE PROMOTION

The task of risk management in the process of software promotion is as essential, as it is during software development management. At the same time, not enough attention is paid to marketing risks when managing the risks of IT projects. However, this type of entrepreneur activity is largely what leads to successful product launch and, as a result, to receipt of profit. In terms if promotion, risk is defined as an event or a condition that may have positive or negative influence on results of promotion program implementation. Risks do not equal problems and issues, because issues take place currently, at this moment in time, whereas risks belong to the future and are only probable and may not ever materialize.

Цель управления рисками — максимизировать их положительное влияние (открываясь возможности), но при этом минимизировать связанные с ними негативные факторы (убытки). Управление рисками включает ясное понимание внутренних и внешних причин, влияющих на принятие ПП пользователями, которые могут привести к срыву программы продвижения ПП. Практически во всех моделях управления рисками, данный процесс включает следующие этапы: идентификация рисков, анализ рисков (качественная и количественная оценка), планирование реагирования на риски, мониторинг и контроль рисков [7]. На этапе идентификации составляется список рисков с описанием следующих характеристик [8]: причины, обусловливающие наступление риска; симптомы (условия), указывающие на то, что событие риска произошло или вот-вот произойдет; последствия, которые могут появиться в результате произошедшего риска; воздействие на достижения целей продвижения: изменение числа внедрений, набора сопутствующих услуг, планируемой прибыли. В таблице 2 приведены основные риски, связанные с продвижением ПП на рынок.

The goal of risk management is to maximize their positive influence and possibilities that the risks open, but at the same time minimize negative factors and losses. Risk management includes clear understanding of internal and external causes that affect the acceptance of the software by consumers and, consequently, may lead to failure of your software promotion program. As evidenced by A.B. Yurasov, almost all risk management models include the following steps: risk identification, risk analysis (quantitative and qualitative evaluation), risk response planning, risk monitoring and control (Yurasov, 2007). According to V.S. Golik, during identification, a list of risks is compiled that describes
risk characteristics (Golik, 2008). These characteristics are as follows: causes that ensue risk; conditions that evidence whether the risk has materialized or will soon materialize; consequences that may follow the materialization of a risk; and risk’s influence on the process of achieving promotion goals. The latter may manifest itself in changes in number of implementations, set of accompanying services, estimated profit. Primary risks of software promotion are presented below (Table 4).

<table>
<thead>
<tr>
<th>Reason</th>
<th>Condition</th>
<th>Consequences</th>
<th>Influence on goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in statutory regulation of industry</td>
<td>Passing of laws that regulate business processes in the sphere where the software is used</td>
<td>Additional changes are required</td>
<td>Increase in project budget and payback period</td>
</tr>
<tr>
<td>Changes in state of software and hardware market</td>
<td>Changes in licensing conditions or prices of system software Release of new versions of system software that are incompatible with promoted software</td>
<td>Need to adjust the software</td>
<td>Increase in project budget and payback period</td>
</tr>
<tr>
<td>Changes in economy state of the industry, region, country</td>
<td>Increase in governmental support of the industry Economic crisis</td>
<td>Changes in consumers’ paying capacity</td>
<td>Inability to fulfill Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Launch of new similar products</td>
<td>Launch of new products with similar functions and purposes</td>
<td>Increase in competition</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Mistakes in calculation of software price</td>
<td>Consumers’ refusal to buy software for the indicated price</td>
<td>Decrease in number of implementations</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Software piracy</td>
<td>Internet release of license keys or cracked software versions</td>
<td>Decrease in consumer’s interest to use legal copies</td>
<td>Decrease of planned profit</td>
</tr>
<tr>
<td>Mismatch of software functions and consumer expectations</td>
<td>Negative consumer feedback</td>
<td>Damages to the product’s image</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
</tbody>
</table>
Table 4. Software promotion risks – continuation 1

<table>
<thead>
<tr>
<th>Reason</th>
<th>Condition</th>
<th>Consequences</th>
<th>Influence on goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excessively broad market segmentation</td>
<td>Low consumer conversion</td>
<td>Mismatch in factual and planned values of promotion program efficiency indicators</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Wrong choice of target segment</td>
<td>Underestimation of planned promotion program indicators</td>
<td>Mismatch in factual and planned values of promotion program efficiency indicators</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Mistakes in calculation of labour intensity and time period of software deployment</td>
<td>Failure to comply with scheduled dates of software deployment</td>
<td>Increase in staff workload, failure to deliver on time</td>
<td>Decrease of planned profit</td>
</tr>
<tr>
<td>Low user engagement rate in deployment process</td>
<td>Long process of communication with users when deploying software</td>
<td>Failure to deliver on time</td>
<td>Inability to comply with scheduled dates of reaching promotion program goals</td>
</tr>
<tr>
<td>Mistakes in identifying customer preferences</td>
<td>Low response rate to communication influences</td>
<td>Mismatch in factual and planned values of promotion program efficiency indicators</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Mistakes in choosing communication channels and tools</td>
<td>Decrease in necessary rate of target audience awareness</td>
<td>Mismatch in factual and planned values of promotion program efficiency indicators</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
<tr>
<td>Insufficient specificity of communication messages</td>
<td>Low response rate of consumers to communication influences</td>
<td>Mismatch in factual and planned values of promotion program efficiency indicators</td>
<td>Inability to reach planned indicators of communicative and marketing goals</td>
</tr>
</tbody>
</table>

At the stage of risk analysis the following activities are performed: analysis of data collected when identifying risks into forms that allow conducting quantitative and qualitative risk evaluations. These evaluations include probability of risk realization, its threats, risk ranking by possible threats, estimated volume of losses, etc.

When planning your response, V.S. Golik suggests there are four types of activities that may decrease or eliminate risks (Golik, 2008). These are risk aversion, risk transfer, risk mitigation and risk acceptance. Risk aversion involves changing the promotion plan in a way that will eliminate the threat induced by negative risks, for instance, allocate promotion budget to several different advertisement spaces. Risk transfer implies transferring negative consequences along with responsibility to respond to third parties, for example, ordering the development of communication messages to an ad agency. Risk mitigation involves decreasing risk probability and/or consequences of a negative risk event to acceptable limits, for example, by testing the communication messages on a representative selection of...
prospective customers. Risk monitoring consists of controlling and regularly following the progress of implementing plans made for risks and initiating changes in promotion program if the state of risks influences the volume of accompanying services, required resources or date of scheduled achievement of marketing goals.

9. CONCLUSION

Method of developing a software promotion program presented in this article uses Internet marketing tools. The method is based on integration of fundamental principles of classic marketing that targets product promotion and Internet marketing that takes into account specifics of software products. Mathematical model helps choose marketing tools depending on the stage of consumer response formation and formalize part of the media planning process. Approach to risk management mentioned in the text helps timely plan actions to minimize factors that may have a negative impact on course and result of promotion program. The content of the article may be useful to specialists working in the field of commercialization of software products when they choose to organize product promotion using Internet.

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Penkovskiy M. Launching a new b2b software on the market (Russian),


TRANSFORMATIONS OF THE APPROACH TO HUMAN RESOURCES
IN THE POSTMODERN SOCIETY
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Abstract

The main aim of this article is to analyze transformations of the approach to human resources from the perspective of postmodern society and to discuss the circumstances that can influence the management of human resources. In the first part of the article, viewpoints of various authors on the development of the concept of human resources are provided. Human resources are defined as developed and developing capital of the organization. In the second part, studies performed by Lithuanian scientists on the topic of approach to human resources are compared. The main directions of lately performed human resource studies are discussed. At the end of the article, authors formulate the possible impact of modern transformations on the perspective of human resource management. The idea is expressed that when analyzing human resources, it is not enough to evaluate economic and social society transformations only.

Key words: human resources, human resource management, human resource development, transformations in the postmodern society.

1. INTRODUCTION

Speaking of human resources in the international scope, the most frequently emphasized contexts are business globalization, increase of variety upon the opening of labour markets of European Union and other countries, etc. When analyzing human resources, the transformations encouraged by the Restoration of Independence, changes liberated by the fall of iron curtain, and joining of the European Union are added as well. However, deeper, slower cultural and thinking transformations mostly inviting attention of philosophers and sociologists but definitely affecting Lithuanian society as well are not always sufficiently evaluated. Postmodern contexts and the preparation of consumer society by axiological layers is also relevant material in the process of re-thinking the content of human resources and forecasting possible changes both in public and private sectors.

Relevance of the research. The concept of human resources and its interpretations constantly evoke many discussions. Human resources are not a homogenous, inert mass; therefore, a constant tension exists between the depersonalized thinking and the perception of value of a person as an individual.

Problem of the research. Analysis of academic literature showed that human resources are mostly analyzed by fairly narrow sectoral, historical or geopolitical layers, however, it is necessary to evaluate the tendencies of public thinking, self-perception in the modern world and positioning in the social space. Therefore, a problem is brought forward with the question: what is the impact of modern socio-cultural transformations and how this may shape the attitude towards human resources or towards their main subject, a human.
Object of the research. Transformations of the approach to human resources.

Aim of the research is to analyze transformations of the approach to human resources by highlighting postmodern society’s circumstances. The following research tasks were formulated in order to achieve the aim:

(1) to provide viewpoints on the development of the concept of human resources;

(2) to compare studies on human resources performed by Lithuanian authors;

(3) to evaluate the possible effect of modern transformations on the perspective of human resource management.

Methods of the research: analysis of academic literature based on its systematization, synthesization, generalization and comparison. Academic literature on human resource management, personnel management, management, psychology, philosophy and other fields was used.

2. DEFINITIONS OF THE CONCEPT OF HUMAN RESOURCES

Constantly evolving environment and progressive changes involve human resources that become the main factor ensuring the efficiency of aim achieving and quality of performance in a public sector organization, as well as providing flexibility in order to react more swiftly to the change process.

Active competition determines swift and versatile organization development associated with human resources. It is aimed that every employee has a long-term vision, is motivated and improves his/her abilities and skills, reveals talents and competence in the organization, where efficient interrelations prevail. It is vitally important to develop the necessary abilities in employees, i.e. human resources, since this determines the efficiency of activity in the organization.

More and more scientists and practitioners emphasize the importance of human resources. Human resources remain the source of discussion of the following scientists (Wan, 2003; Brown, 2004; Thom, Ritz, 2004; Janciauskas, 2006; Collin, 2007; Chew, Chan, 2008; etc.), where their importance, form of imperatives, activity aims, values, etc., are emphasized. Therefore, when analyzing the practice of human resources, it is essential to consider the concept of human resources carefully.

In academic works published in the second half of the twentieth century, human resources were defined as resources that must contribute to the solution of problems in an organization as an efficient and powerful collective actor (Coleman, 1982). Human resource management becomes complex, conditions are provided for employee training, and the impression is created in order for employees to feel that they invested something in their workplace and work process. Many theoreticians claim that human and not material resources determine the speed of social development. The concept of human resources originated after discussions that lasted for several decades as an independent direction of science paying especially much attention to the recognition of personal abilities and needs of an employee and creating skills necessary for his/her activity, although historically it was associated with the tendencies of economics science of the beginning of 20th century (Grazulis, Jagminas, 2008). According to M. Isoraite (2011), in developed countries it was quickly recognized that this is the main and very important source of company development. It is very common for companies that encountered problems to allocate all forces and funds to marketing, finance and production management, but not to specialist training and education. Therefore, such decisions often only weaken company position on the market. The main objective of each organization is to gain the maximum profit, occupy the largest possible part of the market or render the best services. In order to achieve this, they must have unique resources, and the
main of them are human resources. M. A. Armstrong (1986) indicated that human resource management is a process related to organizational issues including cultural, structural changes, the promotion of work performance and efficiency, the application of resources for future needs of organization, development of exceptional capabilities, and achievement management. According to C. D. Fisher, L. F. Scjoenfeldt and J. B. Shaw (1990), the efficient functioning of organizations depends of the following main stages: efficient functioning, mission and strategy of organizations, organizational structure, and human resource management. Scientists provide two different opinions on human resource management: set of perspectives perceive people as potentially creative and complex resources, whose behaviour depends on many various factors: the influence of personal qualities and environment. Theoreticians of organizational behaviour think that human behaviour and the performance of their functions (roles) in an organization are determined by four variable functions: capacities, motivation, perception of the role, and situational factors (McShane, 1995).

Both organization and people want to gain benefit for themselves. Each employee having exceptional abilities and knowledge is a unique and irreplaceable organization’s asset requiring constant investments. Investment in the potential of human resources generates future income for an employee, creates uniqueness and value, and organization gains desirable results. In the theory of economics, human resources are considered as the capital. If it is desired to transform the creative and intellectual activity into production activity, it is attributed to equity (Wiig, 1997). Many authors define the concept of human resources similarly; however, a certain interpretation is noticeable (table 1).

<table>
<thead>
<tr>
<th>Year</th>
<th>Author / authors</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>2012</td>
<td>J. Vveinhardt, E. Gulbovaite</td>
<td>When managing human resources, it is necessary to evaluate employees’ personal and organizational values and increase their congruence.</td>
</tr>
<tr>
<td>2012</td>
<td>M. T. Khan, N. A. Khan, K. Mahmood</td>
<td>Human resource along with education and training also involves activities related to, empowerment, awareness raising, skills enhancement, team building, community mobilization and development, organization development, entrepreneurship development.</td>
</tr>
<tr>
<td>2011</td>
<td>M. Isoraite</td>
<td>High capacities are created by efficiently managing human resources and engaging and maintaining qualified and motivated employees. Those are small rotation, high production quality, low production expenses, and quickly and rapidly implemented organizational strategy.</td>
</tr>
<tr>
<td>2011</td>
<td>D. Daneci-Patrau, L. Patache</td>
<td>Human resources have become a strategic production factor, and at the same time the main component of performance for all domains and at all organization levels.</td>
</tr>
<tr>
<td>2010</td>
<td>A. Raipa, A. Pauliukeviciute</td>
<td>Effective human resource management in the culture sector in the stage of globalisation is based not only on the thorough development of the system which involves the employees of the culture institutions, but also on the recognition of the international practice and its factors of influence.</td>
</tr>
<tr>
<td>2010</td>
<td>B. B. Mahapatro</td>
<td>Human resources create value for an organization and help achieving organizational competence, subject to organization’s investments in</td>
</tr>
</tbody>
</table>
Upon analyzing definitions of human resources, it is possible to notice consistent patterns. Objects that are frequently mentioned: competitive advantage, value of an organization, asset, achievement of goals, performance efficiency, qualification, its improvement, etc. Human resources are involved into problem solving by establishing organizations’ development perspectives. The successful self-development of an organization depends on the correct use of human resources’ potential.

The particular attention is focused on the development and self-development of human resources; those processes are not equal. The emphasis on the antinomy of development and self-development of human resources allows separating interacting elements and feel the margin of their contact. The concepts denote two processes completely different by their nature. Development of human resources involves the complex of purposefully selected measures creating the beneficial environment for the disclosure – development – of creative powers of an individual. Self-development of human resources is not equal to learning, assimilation of new knowledge and skills, since the sign of self-development is creation of a qualitatively new, more progressive product (Vveinhardt, 2007).

J. Srebalius (2007) has defined the concept of self-development as the quality of a structure to seek its goal with decreasing energy consumption. J. Kvedaravicius and L. Jeseviciute-Ufartiene (2006) defined self-development as the relation between factors that are managed by us and factors that manage us. J. Kvedaravicius (2006) strictly separated the self-development from development stating that one cannot force the self-development from outside. When analyzing the processes of human resource development and self-development, it is important to name the place occupied by human resource self-development as a value in the organizational strategy and understand to what extent the tasks of organization’s self-development coincide with tasks set by individuals for themselves and their inner inspiration. Changes in the organization are considered to be the main symptom of self-development, however, it is significant that not all changes mean self-development. Changes determining self-development must allow: increasing objectives and needs of an organization, implementing higher objectives and bigger opportunities, increasing objectives and potential of other systems (Salkauskiene, Vveinhardt, 2007). According to P. Vanagas (2004), the organization is constantly improving, as it involves all employees into the improvement process and aims to satisfy the needs of consumers to the greatest possible extent by improving the quality of products and minimizing costs. The task is set before organizations to provide opportunities and conditions and create cultural environment for human resources to self-develop in such a way that they would correspond to not only present, but also future requirements, as
well as foresee possible changes (Vveinhardt, 2007). In the conditions of globalization of the 21st century, organizations must prepare and implement performance optimization projects that would ensure the modernization of current workplaces and establishment of new modern workplaces, increase of performance efficiency, constant training of the personnel and improvement of complex quality management system. This would help increasing employees’ satisfaction with their work and satisfy their needs (Ginevicius, Makstutis, 2008).

Human resources are the only resources that cannot be copied by competitors; the fundamental factor, which actions determine the success of a public sector organization and quality of services rendered. Therefore, public sector organizations must be able to adapt to the changing needs of society by ensuring the satisfaction of expectations of society members and focusing special attention on the effective management of human resources.

Thus, in summary, it is possible to state that the concept of human resources is interpreted in theories as the most important strategic choice with “various opportunities” and “versatile abilities”, the originated possibility to form and create the new “competitive advantage” and surplus value anytime, the only and inalterable condition of survival of an organization, compelling managers to look and evaluate the potential of human resources once more. Human resources are the developed and developing capital of an organization.

3. DIRECTIONS OF HUMAN RESOURCE RESEARCH IN LITHUANIA

The research on human resources in Lithuania took several directions in recent years. The problematics of human resources is analyzed strategically, and the attention is also focused on narrower fields, evaluating demographic, regional, economic activity sectors, systematic improvement and individual development motives. The objects of human resources research conducted by Lithuanian scientists are presented in Table 2 in chronological order. By the decision of authors of this article, the period of 2002–2012 was chosen for the analysis (the table is deliberately started with the new references and concluded with the results of the latest research).

O. G. Rakauskiene and I. Makauskaite (2004) noted that in Lithuania it is frequently erroneously thought that it is necessary to achieve rapid growth of the economy first, and only then it will be possible to improve living standards of the population. Those processes should happen simultaneously. Economic reforms should be oriented to the development of human resources.

The analysis of issues related to human resources takes this exact direction, the solving of originating tasks must be perceived as the priority direction of search and implementation of development and progress of modern Lithuanian society. However, the highlighted issue of human resource development and economical growth is not always solved for the benefit of people working in organizations. Moreover, as M. Isoraite (2011) states, it is not enough just to have necessary human resources. It is essential to manage them purposefully and strategically, but this is not so easy. After all, those are not ordinary resources. Those are resources requiring appropriate attention, knowledge and purposeful strategic management. When managing human resources, the most important thing is probably to be able to achieve the best results and implement aims of the organization coordinating the goals of separate employees and the organization itself.
Table 2. Objects of human resources research conducted by Lithuanian authors

<table>
<thead>
<tr>
<th>Year</th>
<th>Author / authors</th>
<th>Object of the research</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>J. Vveinhardt, E. Gulbovaite</td>
<td>Concept of congruence of personal and organizational values when making human resources more efficient</td>
</tr>
<tr>
<td>2011</td>
<td>M. Isoraite</td>
<td>Strategic meaning of human resources</td>
</tr>
<tr>
<td>2011</td>
<td>A. Stulgiene</td>
<td>Human resources in a project-based organization</td>
</tr>
<tr>
<td>2011</td>
<td>S. Vaitukunas, E. Stefanenka</td>
<td>Geo-economic structure of human resources in Lithuania</td>
</tr>
<tr>
<td>2011</td>
<td>G. Kuliesis, L. Paregiene</td>
<td>Demographic context</td>
</tr>
<tr>
<td>2011</td>
<td>M. Arimaviciute</td>
<td>Human resources in rural municipalities</td>
</tr>
<tr>
<td>2010</td>
<td>E. Chlivickas, B. Melnikas</td>
<td>Training and improvement of human resources in public sector</td>
</tr>
<tr>
<td>2010</td>
<td>M. Arimaviciute</td>
<td>Correspondence of the public sector to the economic strategy of the country</td>
</tr>
<tr>
<td>2009</td>
<td>V. Barkauskas</td>
<td>Intellectual capital</td>
</tr>
<tr>
<td>2008</td>
<td>E. Klupsas</td>
<td>Development of human resources in Lithuanian agriculture</td>
</tr>
<tr>
<td>2008</td>
<td>R. Kazlauskaite, I. Buciuniene</td>
<td>Human resources as a long-term competitive advantage</td>
</tr>
<tr>
<td>2007</td>
<td>J. Vveinhardt</td>
<td>Conditions of human resource self-development</td>
</tr>
<tr>
<td>2006</td>
<td>E. Chlivickas</td>
<td>Self-development of human resources in the public sector upon Lithuania’s entry into the European Union</td>
</tr>
<tr>
<td>2006</td>
<td>V. Tutlys, J. Winterton</td>
<td>Development and training of human resources while improving qualification on national level</td>
</tr>
<tr>
<td>2005</td>
<td>J. Merkevicius</td>
<td>Personnel management in virtual organization using computer network</td>
</tr>
<tr>
<td>2004</td>
<td>N. Paliulis, E. Chlivickas, A. Pabedinskaite</td>
<td>Problematics of efficient organization management in the information age</td>
</tr>
<tr>
<td>2003</td>
<td>L. Lobanova</td>
<td>Human resource transformations</td>
</tr>
<tr>
<td>2002</td>
<td>I. Bakanauskiene</td>
<td>Personnel management activities</td>
</tr>
</tbody>
</table>

Source: comprised by the authors.

When achieving the set goals, much of the attention is focused on the quality of goal implementation. Flawless and creative performance allows targeted establishment in market economy and implementation of organizational goals. High-quality work accelerates the efficiency of organizational performance. Therefore, total quality management focuses its attention on the changing role of human resources in an organization. Employees must re-orient themselves from the point of view based on supervision and control to cooperative relations based on the commonness of goals of the organization and employee, authorization and performance of various roles. Therefore, the performance is constantly improved and the attention is focused on the quality of services and quality of user / client service. Human resource management progresses from the supportive to managing function (Vanagas, 2004).
Moreover, human resource management faces creative tasks of development of the creative and intellectual performance competence. From the viewpoint of modern human resource management, the success of an organization depends on the coordination of strategy between the organization and human resources, which must comprise an undividable unit, since people are the critical factor of prosperity of an organization. In the innovation management, the presumption of success is appropriate human resources, since they determine if the result will correspond to the anticipated goals (Jakubavicius, Strazdas, Gecas, 2003). Human resources become a part of the created service, and the quality of a service becomes apparent only when it is rendered. The service is rendered directly, when a client communicates with the personnel, therefore, it is very important that it is rendered on time and in a qualitative manner, i.e. the demand must coincide with the capacities. Human resources promote innovations in order to ensure competitive advantage. In modern society, the quality of created products and services becomes important. Therefore, a constant improvement of employee skills is perceived as an opportunity enhancing the high-quality work efficiency.

Costs must be controlled strictly, and the capital must be increased. Employees engaged in creative work have their own production means: it is the knowledge obtained by them that is completely “portable”, i.e. it is a very susceptible type of the main capital. Since intellectual labour employees have their own production means, they are mobile. The value of intellectual capital of the organization grows as it is being used (Palumickaite, 2008). In order to increase the efficiency of human resources, the process that would help increase work-related qualifications and creative competence needs to be modernized at first. B. Martinkus, A. Sakalas and A. Savanaviciene (2003) indicate the following factors determining the significance of qualification improvement: aspiration to accelerate the progress of technique and technology and implement it at work; increase of competition between employees; evolution of management and organization science; personal qualities of an employee; qualification is started to be treated as the fourth factor of production. All mentioned factors are closely interrelated, supplement each other and comprise a whole, and this has a lot in common with society norms and attitudes towards learning and work.

It should be indicated that it is possible to distinguish two main viewpoints on the essence of human resource concept, i.e. general, which perceives human resources as all employees in the organization, and exceptional, supporters of which emphasize the importance of abilities, knowledge, attitudes and experience of employees (Kazlauskaite, Buciuniene, 2008). “The perfect employee” will not necessarily work in the direction beneficial for the organization. Organization must create such an environment that an employee would feel satisfied with his/her work, as well as ensure social guarantees, etc. Employee will implement his/her complete work experience by efficiently rendering modern services and making important decisions only in the “safe organization”.

Upon conducting the analysis of human resource objects under study within the limits of Lithuania (Table 2), it was decided to review the research carried out by foreign authors over the last seventeen years (Table 3).

When comparing human resources research objects chosen by Lithuanian and foreign authors, it can be noticed that theoretical concepts, management process content and function strategies, and the directions of investments and efficient management modernization and competitive advantage creation in the volatile environment are included.
Table 3. Objects of human resources research conducted by foreign authors

<table>
<thead>
<tr>
<th>Year</th>
<th>Author / authors</th>
<th>Object of the research</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>M. Umasankar, J. Ashok</td>
<td>Effectiveness of human resource practices</td>
</tr>
<tr>
<td>2011</td>
<td>Y-H, Huang</td>
<td>Assessment of return on human resource investments</td>
</tr>
<tr>
<td>2010</td>
<td>J. Gerxhi</td>
<td>The management of human resources</td>
</tr>
<tr>
<td>2009</td>
<td>D. Chenevert, M. Tremblay</td>
<td>Human resource strategies</td>
</tr>
<tr>
<td>2008</td>
<td>T. Pelagidis</td>
<td>Human resource development and science and technology parks</td>
</tr>
<tr>
<td>2007</td>
<td>R. L. Tung</td>
<td>Human resource and foreign direct investment</td>
</tr>
<tr>
<td>2006</td>
<td>I. Mathauer, I. Imhoff</td>
<td>The role of non-financial incentives and human resource management tools</td>
</tr>
<tr>
<td>2004</td>
<td>F. M. Nafukho, N. R.</td>
<td>Link between the Theory of Human Capital and human resources</td>
</tr>
<tr>
<td></td>
<td>Hairston, K. Brooks</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>K. Zhan</td>
<td>Web Sites for human resource development</td>
</tr>
<tr>
<td>2002</td>
<td>Y. Ishizawa</td>
<td>Human resources and cultural development</td>
</tr>
</tbody>
</table>

Source: comprised by the authors.

4. HUMAN RESOURCES IN THE CONTEXT OF TRANSFORMATIONS

When analyzing the problematics of human resources, it is not enough to evaluate economical, political, socio-demographic and global changes. It is necessary to evaluate the broader spectrum of assumptions that may determine the self-development and more efficient use of human resources. P. F. Drucker (2004) noted that the assumptions for such a social discipline as management are actually more important than for natural sciences. However, the social space is constantly changing, and this means that assumptions that were valid yesterday may become void or even misleading in a very short period of time. Therefore, the evaluation of human resources requires the interdisciplinary viewpoint as well, perceiving deep processes of transformation of world-view and attitudes of the society. When human society, according to B. Melnikas (2002), is treated as the most important link in the ecosystem manifesting itself in the global world, it is possible to claim that transformations taking place in the society may be considered the essential condition of global development and progress. This point of view determines the necessity to discuss in more detail issues related to both meaning and substance of transformation of the society itself and consistent patterns characteristic to transformations, and to the impact of those transformations on the development of the society. However, according to P. F. Drucker’s (2004) point of view on the challenges awaiting in this century, changes cannot be managed, they can only be overtaken. Changes can be painful, but the organization that does not regard them is not capable of surviving. Therefore, the condition to become the leaders of changes becomes the main challenge for the new century management. Social problems mean the disorder of functioning of the society, and, if only potentially, they may be seen as political forces. However, they are the sources of opportunities at the same time, and social changes and social innovations were always as important as technical innovations (1 fig.).
Economic and political transformations that started with the collapse of the Soviet system were faster in our society than cultural and axiological changes. On the one part, this promoted more rapid changes of thinking, on the other part, created a lot of axiological tensions and social conflicts. Most of the people, who, according to V. Tismaneanu (2003), previously supported the homogenizing logic of communist ideology, now eagerly adjoin none the less collectivistic social visions, instinctively resisting even the thought of personal right, diversity and difference of opinions. Economic difficulties, growing unemployment and deformation of social welfare system of the socialist state have created anger and resentment of the new regime.

Many researches show that strong nostalgia for Soviet social welfare system still exists in Lithuanian society, and this certainly has great influence on the quality of human resources: their values, attitude towards work, initiative, commitment to an organization, large-mindedness, tolerance and many other aspects of public and civil behaviour. Part of Lithuanian intellectuals started to be associated more with the civil society, process of community creation and public space. This tendency is important and timely, in consideration of the breaking of social relations, anaemia, and fragmentation and atomization of our society (Donskis, 2008).

R. Ginevicius et al. (2006) emphasizes that the creation of progressive technologies and their regeneration that becomes more and more rapid, their growing influence on human activities and life allows claiming that states that have developed from the post-industrial society progress into a society of another type. However, the knowledge society and development of knowledge economy are not the main challenges anymore. National mentality experiencing deep transformations and crossroads of identity became suggestible to the enhanced cultural western space as well. L. Donskis (2008) states that in the era of globalization the identity is multidimensional and includes at least several interrelated
and communicating layers of social and cultural experience. The concept of Baudrillard's consumer society draws the consumer-oriented culture trajectory of the post-modern society.

According to Z. Bauman (2011), essentially differently from the society of producers, consumer society directs its drill and the pressure felt by its members since their childhood to the management of the soul of the latter, leaving the management of their bodies for the individually practiced “do it yourself” type of activity, which would be individually supervised and coordinated by spiritually pressured individuals. There are no separate education strategies for boys and girls, the role of a consumer, unlike the role of a producer, does not differ depending on the gender. Moreover, J. Baudrillard (2010) noted that the exploitation affects the collective and social work sector, therefore (via the deprivation of work power) it manifests itself as solidarizing (from a certain level). It leads to a (relative) class society. As a producer, basing oneself upon the work distribution itself, the worker postulates others: exploitation is the exploitation of everybody. Consumer society does not recognize any age and gender differences (Bauman, 2011). According to the author, consumers of both genders, all age groups and different social statuses will feel imperfect if they do not accept offers that assail them from all sides in order to implement their social duties and defend their self-esteem: to be noticed and acknowledged at the same time.

In most scientific studies, human resources are discussed in a depersonalized or impersonal manner, as if those resources were the indiscrete mass. However, this perception is often confronted by efforts to encourage individual motives of a person and humanize attitude towards people. However, this depersonalized thinking may prevent encouraging individual creative capabilities.

5. CONCLUSIONS AND DISCUSSION

The definition of human resources is composed of such criteria as the competitive ability of an organization, profitability of its activity, congruence of personal and organizational values, and coherence of development and self-development. Learning, increase of creativity, professional improvement, loyalty, knowledge and its development is implicated in the concept of human resource development.

Human resource studies take several directions in Lithuanian academic work of recent years. First, resources are analyzed in the national context; second, they are dissociated into public and private sector researches. Out of those, demographic, regional researches, and researches of individual sectors of economic activities divaricate. In the perspective, more attention should be focused not only on the detailed analysis of separate sectors, but also on the qualitative content of the development and self-development of human resources.

The formation of human resources in the national context was influenced by not only political-social, technological and market globalization tendencies. Transformations of culture, mentality and human consciousness constantly taking place in the post-modern society must be analyzed using interdisciplinary instruments. Boundaries between genders and age differences are erased, number of universally formed social duties for an individual increases, and human resource depersonalization tendencies become more pronounced in the post-modern society.
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NEPOTISM IN MANAGEMENT OF THE ORGANIZATION: PHENOMENON DISCRIMINATING EMPLOYEES

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Abstract

This article analyses nepotism in the context of discriminatory behaviour, when making decisions in an organisation unequal conditions are created on the basis of subjective criteria: kinship, friendship, personal sympathy, etc. The attitude that the nature of nepotism is discriminatory, it affects organizational climate, has a negative impact on employee work satisfaction, loyalty to the organisation, creates a favourable environment for interpersonal conflicts, is formulated.

Key words: nepotism, discrimination, management of organisations, favouritism.

1. INTRODUCTION

The term nepotism is generally used to refer to the corrupt processes in the public sector, undue influence and power in its broadest sense. The public and the media keep a close watch on decisions, granting privileges in the public sector, however, nepotism in the private sector rarely reaches the public debate; it remains on the level of private employee conversations. Partly due to the functioning stereotypical attitudes, where nepotism and favouritism are seen as tradition and inevitability, allegedly unable to influence decisions of the head of a private organisation, as a lack of management and ethical expertise. Nepotism is closely related to discriminatory processes, together with mechanically applied anti-discrimination mechanisms, which aim at establishing equal rights, but do not guarantee a high level of expertise. In some organisations, e.g., political, both in Lithuania and abroad, it is usual to allow a certain number of places in electoral lists for women. While talking about equal rights, the nature of the principle falls under the concept of discrimination – making a distinction – in this case, according to the gender, and therefore remains a relevant ethical dilemma. When should nepotism be treated solely negatively, and in what cases it may be justified? Although the discussion about the cases when nepotism may be justified is still ongoing, the existence of this phenomenon in both public and private sector organisations adversely affects the climate and employee job satisfaction.

Relevance of the research. The studies of nepotism and favouritism are actualised by social context of public immunity from discriminatory behaviour. The fact that the substantial part of the society tolerates bribery as a way to achieve the goal illegally also shows the complicated influence of moral criteria on decision-making. According to the data of the research ordered by Special investigation service in 2011 and carried out by “Vilmorus”, nepotism remains one of the most common forms of corruption in Lithuania. None of the social or professional groups exists in isolation, therefore, more or less it represents general socio-cultural trends and values. Nevertheless, although the situation in the public sector is examined, it is possible to draw analogies to the private sector as well.

Problem of the research. Nepotism is traditionally more frequently associated with organisations controlled by the State and local governments, corrupt relations. However, it is equally important to examine nepotism as a phenomenon common for both public and private sector organisations, which
affects functionality of relationships between employees of various ranks and general organisational climate. The analysis of different sources carried out shows that not only the part of the society interested in privileges is still trying to justify the discriminatory aspect of nepotism; the question if nepotism is always negative remains among scientists as well. In addition, the analysis of the issues of nepotic relationships, especially in the aspect of discrimination in business structures is still sparse.

Investigation level of the problem. The problems of nepotism in different perspectives are analysed by quite a few foreign (Becker, 1962; Ewing, 1965; Kaufman, 1983; Rees, 1996; Chervenak, McCultough, 2007; Christodoulou, 2008a, 2008b; Ferlazzo, Sdoia, 2012; Ulrik, 2012; etc) and Lithuanian (Grigas, 2003; Brandišauskas, 2005; Palidauskaitė, 2006; Lukošaitis, 2011; Vveinhardt, 2012a, 2012b; Vveinhardt, Petrauskaitė, 2013a, 2013b; etc) authors. Lithuanian authors are more likely to study socio–cultural aspect of the phenomenon, which has an impact on the performance of political and administrative system of the country, in depth.

Object of the research: discriminatory context of nepotism.

Aim of the research: to analyse the discriminatory context of nepotism in the management of organisations. The following research tasks were formulated in order to achieve the aim:

1. to examine the context of the usage of nepotism concept.
2. to reveal the discrepancy of assessment of nepotism when organising internal activities of private sector organisations.

Methods of the research: the analysis of scientific literature and the comparative analysis of separate informational resources.

2. TRAJECTORIES OF DEFINITION OF NEPOTISM

Nepotism is usually perceived as the use of official position in order to employ, favour relatives. Alongside with the term „nepotism“ the concept of favouritism is used – distinguishing and granting privileges to persons for whom some amiability is felt when promoting them to higher positions. Both concepts refer to preponderance of personal, individual motives, evaluating a decision in terms of objective criteria and public interest. Objective criteria are measured by professional abilities, expertise and knowledge. Subjective – by decisions based on personal benefit or close kinship, friendship ties. This is the breach of interests of the system (organisation, community of its members).

F. A. Chervenak, L. B. McCultough (2007) emphasise that the concept of nepotism includes favouritism, shown through the behaviour with others, especially with subordinates, using kinship ties. Nepotism in the broadest sense also refers to the display of friendliness to others, who, although not connected by family ties, consider themselves superior to other colleagues. For example, discussing the case of Greece, I. Christodoulou (2008a) argues that nepotism in medicine is defined as a child’s privilege, shown in wide range of forms. Nepotism during the last year of medical studies, nepotism during postgraduate medical studies, nepotism in universities and hospitals, nepotism in medical research, nepotism in scientific publications, nepotism in payments. Research results of F. Ferlazzo and S. Sdoia (2012) show that the nepotism is a relevant issue not only in medicine, but also in various other fields of activity.

According to F. A. Chervenak and L. B. McCultough (2007), it has been proved that there is a bias, when providing awards for achievements in a scientific society in Sweden, which shows that women are discriminated. It looks like there are manifestations of nepotism within European tradition, which
considers Dr. Professor to be the intellectual father, or as the Germans would say – Doktorvater. As it includes favouritism, which is based on trivial personal relationships, for example, a citizen–applicant is someone’s spouse or child, nepotism during employment and admission to health training centres is seen as ethically suspect (at best), ethically inappropriate or even in the worst case – illegal.

The obligation to avoid nepotic decisions in state and local government organisations of the Republic of Lithuania is stated in the Law of Public Service and the Law of Coordination of Public and Private Interests in Public Service. Civil service in the law is based on the principles of respect for the individual and the state, justice, selflessness, decency, impartiality, responsibility, transparency and exemplarity. The letter of the law commits public service employees to avoid conflicts of interest and to act in such a way that there is no doubt if such a conflict exists; also to avoid the situations, where a public service employee has to make a decision or participate in decision–making, related to his private interests when fulfilling the duties or carrying out a commission. Private interests of the public service employees are treated as the personal property or non–pecuniary interest, which is likely to influence decisions in the performance of the duties of a public service employee (or his/her close relative or family member). Private–sector organisations formalise (or not) principles of internal activity in the codes of ethics. Article 97 of the Labour Code prohibits persons who are in close kinship or relationship by marriage (parents, adoptive parents, brothers, sisters and their children, grandparents, spouses, children, adoptees, their spouses and their children, as well as the parents, brothers, sisters and the children of the spouses) to take civil service positions in one state or municipal institution and one state or municipality company if their service together is related to direct subordination of one of them to another or with the right to control another.

Lithuanian authors relate nepotism and “string–pulling” used as a synonym in the region with the concept of corruption in the public sector. R. Grigas (2003) argues that the syndrome of corruptive consciousness, characteristic to a modern Lithuanian, manifests itself in quite different forms and is “powered by” a variety of sources. One of those sources, according to the author, is nepotism, which is related to the lack of civil maturity and a small number of residents of the state, due to which connections play an important role. There is no doubt that the structural and functional segment of corporatism, as well as various cultural relics of clientelism (for example, “string–pulling”, connections, nepotism) remain significant factors, which form the direction, content of the political process and behaviour of “players” in Lithuanian political system (Lukošaitis, 2011).

D. Brandišauskas (2005) analyses the concept of “string–pulling”, which is closely related to nepotism, in historical socio–cultural aspect of the region. However, it should be noted that in Lithuania there is a tendency to look for the roots of nepotism in the much closer historic past. The extent of nepotism, as well as corruption in Lithuania is often related to the influence of the socialist system. There used to be the signs of prowess and artfulness in the ability to bypass the system, to appropriate the assets of the organisation when dealing with economic and other business. Such relics, quite distinct, signifying levelled values, have remained. For example, in everyday speech the semantics of the use of “official job” includes private business as well, like distinguishing between “mine” and “somebody else’s”. Somebody else’s is less valuable. According to J. Pašiūnaitė (2006), with the change of the social order, the culture of “string–pulling”, the importance of connections using the official position have not disappeared. The motivation of such activity remained similar, and it was started to call the activity itself corruption, nepotism, favouritism and conflict of interests.

However, this phenomenon is not only typical of the post–soviet countries, although, in fact, it is noted that the farther to the East, to the Asian countries, the stronger nepotism is. Moreover, when analysing
nepotism in the cultural aspect, there are strong manifestations, related to genetic structure of the culture, in organisations of the countries of Africa, Latin America (Ulrik, 2012).

It is obvious that nepotism is characteristic not only to the developing countries. The issues of nepotism in the private sector in Western countries have been analysed for many decades. For example, half a century ago D. W. Ewing (1965) pointed out that nepotism in management is a very sensitive and risky topic in the U.S. business world. It is felt not only in the development of management, promotion and control; not only because of the image and business public relations, but also when it comes to managers who have or would like to have their relatives in key positions. Since it is very important in the broadest sense, most entrepreneurs find it extremely difficult to talk about. What is the real status of nepotism in business? What is its “correct” extent?

![Fig. 1. The balance of objective and subjective criteria of the decision](source: prepared by J. Vveinhardt.)

3. AMBIGUOUS LOGIC OF NEPOTISM

Business in all countries follows the logic that the water runs down, and it is more based on human nature. Therefore the debate about the benefits and harm of nepotism has not reached the optimal result yet.

Nepotic decision includes subjective motives of the decision–maker, causing the risk that the balance of motives could be damaged. Ideally, the balance of objective and subjective criteria of the decision should be ensured by high categories of a decision–maker. However, such a model would be too theoretical.
and wouldn’t give higher guarantees, as moral categories on the individual level remain an unknown quantity. Moreover, it would be difficult to ensure confidence and favourable climate within the organisation. Such a situation may lead to declining loyalty of employees to the organisation, lower job satisfaction, conflicts, increasing rotation and a complicated image in the eyes of the community, partners and consumers (Fig. 1).

So there is a vague grey “X area” in which values play the most important role. Morality, in spite of the drawn moral, value trajectories of social behaviour, is variable itself, depending on culture, its subcultures and individuals it consists of, therefore, it does not guarantee stability.

According to F. A. Chervenak and L. B. McCultough (2007), there are two main reasons why one may not accept nepotism. The first reason is incompetence. The second reason is the discriminatory aspect of such actions. The opponents of nepotism argue that even if a person is qualified, he or she may be employed and granted privileges due to the fact that he / she is related to a representative of the authorities in medical school or residency by kinship. Personal interests are highly subjective, variable and misleading, when it is required to select the most qualified applicant, as employment cannot be rationally linked to reliance and legally based on the interests of the organisation. Therefore, such personal interests, on the basis of which decisive decisions are made, become a reason of discrimination, because it is easy to understand why health training centres often adopt the policy that prohibits nepotism and why there is a negative connotation when it comes to nepotism. For this reason, when hiring an employee and making a final decision, discrimination occurs. Considering this ethical analysis, it is easy to understand the compliance with policy, which prohibits nepotism.

Nepotism is not only discrimination; it also distorts the principles of competition, which are a stimulus of any organisation – both on the levels of staff and market. The individual, who possesses certain knowledge or skills, which allow him to cut production costs by half, involved in the production, and reduced the price at least by a quarter, renders a great service to the society – not only because of the reduced price, but also because of additionally reduced costs. However, only in the presence of competition we can say that these costs will decrease (Hayek, 2002).

In the study of the medical sector F. A. Chervenak and L. B. McCultough (2007) argue that experience has shown that in some cases nepotism manifested itself when hiring incompetent academic staff, providing hospital privileges to doctors who are incompetent or not competent enough, when hiring unskilled or low–skilled specialists to work in medical schools and the residency. Those who were responsible for the services provided by hospitals and medical schools were dissatisfied with the results; they wanted to protect their patients/clients from trouble, to legitimize organizational interest. Unskilled or low–skilled doctors and interns risked the health and lives of patients without any necessity, and this obviously affects patients’ confidence. Incompetence also repulses, or even excludes other doctors and adversely affects their morale and efficiency. Those who benefit from nepotism, are possibly protected from accountability and penalties, because they have powerful patrons, and it only further increases the risk for patients, morale and efficiency. The authors, however, raise the question whether the negative connotation is always necessary when speaking about nepotism?

According to R. T. Kaufman (1983), the employer may be more inclined to hire a friend (or a friend of one of his employees) than a stranger, paying him/her the same salary for several reasons. According to economic theory of discrimination introduced by G. Becker (1962), employing friends may be useful for the employer, even in the absence of monetary expression. The logic of this benefit is quite vital, particularly as regards greater confidence in someone with whom interaction is closer. It is believed that the friendship will transfer to the employee – employer relationship, and some of the financial aspects will be compensated by moral aspects. F. Ferlazzo and S. Sdoia (2012) argue that, for example, in
Canada and Denmark 6 percent of the managers have the same employer as their parents. According to I. Christodoulou (2008b), the attitude towards nepotism is more favourable in small, family–run companies. Family members are taught various forms of management in order to ensure continuity in the company, when the members of the previous generation retire or pass away. In fact, in most small companies nepotism is considered to be synonymous with “succession”. One of the most common arguments against nepotism is that emotional ties between people, related by some other types of connections, may have a negative impact on their decision–making and professional development.

According to A. Rees (1996) et al., employing friends (or friends of current employees) would probably bring monetary benefit, or would let the employer to save due to it. These new employees would possibly feel extra pressure to take responsibility for good performance (increasing their productivity) in order not to disappoint their benefactor. Friendship also provides a reliable and relatively low–cost source of information about those looking for a job, because current employees do not want to provoke their employer by recommending friends who would be poor applicants for this position. Reliable friends’ recommendations are likely to be a replacement for more expensive source of information, including former employers’ or teachers’ recommendations, records of scientific achievement and previous work history. Since these information sources are more difficult to reach or more expensive, employers will prefer to take advantage of their friends for monetary reasons.

Nevertheless, according to G. Becker (1962) theory, employers who practise nepotism may receive smaller cash income compared to those who do not. Not only does nepotism affect the internal field of competitiveness of organisation employees. Discriminatory exclusion undermines organisational climate. The principles of employee assessment, career, task distribution, control and many others become indefinite, uncertain. This is the signal of managers that the desired goals in the organisation can be achieved not by increasing the competence of and improving performance, but using other ways, not necessarily ethical ones. K. S. Ulrik (2012) pointed out that managers can choose from several methods of management, for example, to put up with nepotic ambiguities or to strengthen the modern organisation.

G. Becker (1962) expressed hope that economic logic and the principle of survival will eliminate employers’ nepotism in the long run. If all employees were homogeneous and agreed to work for lower wages, if they could work together with their friends, all firms would become isolated, because in this case all of the employees of the firms would be friends. In addition, all employees would receive the same salary. On the other hand, if employees were heterogeneous, and qualified employees agreed to work for a lower wage, if they could work together with unskilled employees, the unskilled employees who were not friends of qualified workers would possibly be hired, but only if they agreed to work for a lower wage.

The research of F. Ferlazzo and S. Sdoia (2012) has shown that a lot of people admit that nepotic relationships are harmful. According to D. W. Ewing (1965), most authors are sceptical about the practice of employment of relatives in key positions in the business world. American Management Institute researchers find it difficult to understand how the company, which speaks about its management as perfect, can generally tolerate any form of nepotism? When the articles on nepotism appeared in The Wall Street Journal, Fortune, Sales Management and other dailies, the examples of nepotism and bad experience have become a relevant theme for articles right away (for example, “High price of nephews”). Moreover, the policy of hiring relatives for key positions is contrary to some values the entrepreneurs advocate. Many managers believe that this practice is undemocratic – those who state this are “nepots” or nepots’ patrons (i.e. senior managers related to nepots) themselves.
4. CONCLUSIONS AND DISCUSSION

Nepotism is generally associated with corruptive relationships like protection of the interests of relatives and criminalized pushing of interests of representatives of business in the public sector of the state, which involves politics and public administration. Nepotism deeply rooted in Lithuanian public life is related to historical—systemic hangover from socialist order, which has levelled public values. Nepotism is more often related to the developing countries, where there is strong peasant, tribal culture, although the issues of nepotic relationships are also relevant to economically strong, developed countries of Europe and North America.

Nepotic relationships are most widely dealt with in the public sector, but it is no less relevant problem in business. The more especially as there is still no clear answer how to connotate nepotism – positively or negatively. It was found that the arguments of the critics of nepotism based on negative discriminatory, competence, work environment within organisation and other points of view are stronger. Nepotism in the public sector is connotated clearly negatively, but in case of business there is a grey area, which also tells about the lability of values, moral conformance. The logic of nepotism in business, which is a part of the same society system, remains controversial. Studies of nepotism issues promote the expansion of the discussion about this phenomenon in Lithuania – not only in the public, but in the business sector as well.

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AN EVALUATION OF USING A COMPANY’S GOODWILL AS AN EARNINGS MANAGEMENT INSTRUMENT IN POLISH ECONOMIC PRACTICE ON THE BASIS OF CONDUCTED SURVEY RESEARCH

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Abstract

The article presents the results of surveys regarding the use of earnings management instruments related to the settlement of acquired and consolidated company goodwill, which have been conducted among accountants and managers. The research has revealed that the importance of these instruments evaluated by the surveyed grows as the economic entity or capital group increases. A greater importance was attached to instruments connected with consolidated goodwill. The surveyed properly assigned particular instruments to the earnings management strategy adopted by the management. However, some answers indicate erroneous recognition of Polish and international standards in this scope.

Key words: goodwill, earnings management, financial statement

1. INTRODUCTION

Earnings management is an area of dynamic changes resulting from new solutions adopted in both national and international balance sheet law. Depending on the balance sheet law in force, some earnings management instruments are gaining significance, while the others are becoming less important. One of the instruments that become increasingly important year after year is goodwill reported in a financial statement as an element of an economic entity’s or a capital group’s assets. Goodwill presented in a company’s financial statement may result from the purchase of another entity or from financial statements’ consolidation in the case of a capital group.

This value is closely related to the parameter of fair value, which also entails particular consequences from the point of view of earnings management. The authors of the study have asked the following question: to what extent is a company’s goodwill used in earnings management by accountancy professionals and managers in Polish economic practice? This question does not deal with objective evaluation of this instrument application on the basis of financial statements analysis and data about the entities, but the subjective assessment of persons drawing up the financial statement and managers who are responsible for it.

Therefore, the aim of the study is to analyse and assess the use of goodwill valuation and its deductions to shape an economic unit’s or capital group’s results on the basis of opinions presented by the financial-accountancy department employees and managers taking part in the survey. Also earnings management strategies associated with the valuation and settlement of a company’s goodwill have been investigated.

The authors of the publication have formulated the following hypotheses:

1) There is a positive correlation between the size of an entity or a capital group and the importance attached to earnings management instruments related to the company’s goodwill.
2) Evaluation of the level of significance of a particular instrument related to the company’s goodwill depends on the strategy adopted by the management of the unit or the capital group.

3) The use of instruments related to the company’s goodwill in order to implement a particular earnings management strategy concerns mainly capital groups, i.e. regards a consolidated company’s goodwill.

2. THE ESSENCE OF GOODWILL

A company’s goodwill is a value resulting from differences between the balance sheet value of the company’s assets and its market value. Analysts find it difficult to interpret goodwill and accountants have problems with its assessment. In simple terms, it can be assumed that its existence is manifested by a purchaser-investor’s willingness to pay a higher price for another unit or for its shares than that resulting from the total fair value of the purchased net assets of this company as a whole or a part contained in these shares. This happens because the purchaser-investor discerns other benefits of such a transaction, i.e. also the elements of assets which are not included in the economic entity’s balance sheet but work for its market value. This might be the company’s renown, a circle of regular „loyal clients”, the attractive sale market etc. For this reason, a company’s goodwill can be considered on three planes:

- evaluation of a unit’s assets – so-called internal value of the company,
- purchase of another unit – so-called acquired goodwill,
- purchase of shares in another unit which provide control or co-control – the company’s goodwill as a consolidation difference (e.g. Nobes Ch., Norton J., p.1996, p. 180).

The internal value of a company cannot be reported as an element of the unit’s assets, as it is not verified, confirmed by a particular transaction. It is then a hypothetical value. Changes in an entity’s market value or its different valuations, depending on the adopted method (income-based valuation, assets-based valuation) cause differences in the established value (Molenda W., 2008, pp 93-100).

The acquired goodwill and the value which is a positive consolidation difference are reported in a financial statement or a consolidated financial statement. The manner of establishing and settling the company’s goodwill reported as a component of the economic unit’s or capital group’s assets may become an earnings management instrument in these entities (e.g. Francis J. et al., 1997. p. 119; Skinner D. J., 2007, p. 283; Kim S., Yoon S. W., 2012,p.4). These activities are included in the range of options allowed by the accounting policy (Jermakowicz E., Epstein B. J., 2011, pp.45).

The approach to identification and settlement of a company’s goodwill adopted in legal solutions over the last several years has undergone serious changes (Rees D. A., Janes T. D., 2012, pp 30-31). Some of these changes have also been introduced in Polish balance sheet law.

3. COMPANY’S GOODWILL AS AN EARNINGS MANAGEMENT INSTRUMENT ON THE BASIS OF POLISH BALANCE SHEET LAW

The basic legal act which defines a company’s goodwill in Poland is the Accounting Act 42.

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This legal act refers to detailed regulations contained in the Order issued by the Minister of Finances\textsuperscript{43}. Public corporations and banks are obliged to draw up consolidated financial statements in accordance with International Accounting Standards/International Financial Reporting Standards. Another group of entities has a choice between the Accounting Act and IAS/IFRS as a balance sheet law.

The company’s goodwill is a difference between the price of purchase of a particular entity or its organised part and the lower fair value of the purchased net assets of this unit or its organised part (art. 33 of the Accounting Act). This definition applies to the acquired goodwill of a company. It has to be emphasised that the Accounting Act also allows reporting the negative value of a company as an element of its assets. Pursuant to the Accounting Act, if the purchase price of a unit or its organised part is lower than the fair value of the purchased net assets, the difference is the company’s negative goodwill reported in the unit’s financial statement as deferred revenues.

In the first stage of consolidation procedures, on the date of purchasing the shares that provide control over another unit’s net assets, it is necessary to establish a so-called consolidation difference.

The company’s goodwill as a consolidation difference has also been defined in detail in the Accounting Act (art. 60). The existence of a surplus of the value of shares over the corresponding part of net assets evaluated according to their fair values gives rise to the (consolidated) goodwill of dependent units, which is recognised in the consolidated balance sheet assets, in the item having the same name\textsuperscript{44}. A surplus of a part of net assets evaluated according to their fair values over the value of shares constitutes the company’s negative goodwill, recognised in balance sheet liabilities\textsuperscript{45}. Consolidation differences should be calculated on each day the subsequent parts of shares are bought. In the event the shares are sold, the settlement of this transaction should take into account the company’s goodwill that has not been deducted yet or the company’s negative value.

A company’s goodwill is settled through depreciation deductions according to the linear method in a period of time not longer than 5 years. In justified cases the unit’s manager may prolong the depreciation period up to 20 years. The period of company’s goodwill settlement adopted by the management may become an effective instrument of the economic unit’s or capital group’s earnings management (e.g. Henning S. L., Shaw W. H. 2003, p. 316).

Polish law also allows deductions due to permanent impairment of goodwill if the value of this impairment is higher than depreciation deductions. An additional deduction due to permanent impairment of goodwill may also become an earnings management instrument. By adopting appropriate estimates and base values used in the impairment test, such a deduction can be decreased or passed over, accordingly.

\textsuperscript{43} The order concerning detailed principles of drawing up consolidated financial statements of capital groups by entities other than banks, insurance companies and reassurance companies, dated 25\textsuperscript{th} September 2009 (the Journal of Laws No. 169).

\textsuperscript{44} Item A. The goodwill of subordinated units, with dependent units’ separation.

\textsuperscript{45} Item C. The negative goodwill of subordinated units, with dependent units’ separation.
In the case of permanent impairment of shares’ value in dependent units, the company’s goodwill established on the day of purchase is subject to deduction on the financial result by the sum of the difference between the previous value of shares and the value established after taking the permanent impairment of goodwill into account.

Another instrument of earnings management can be negative goodwill settlement. According to the Accounting Act, negative goodwill (both the acquired and consolidated one) is settled in the following way:

- in the case of future losses and costs estimate – negative goodwill up to the level of these costs is depreciated throughout a period in which these costs will be incurred,
- if the negative goodwill exceeds these costs or such costs have not been evaluated - the depreciation period depends on the period of depreciation of the purchased unit’s fixed assets:
  - up to the level of the fixed assets’ fair value, excluding long-term financial assets quoted on regulated markets, for a period which is the weighted average of the economic life of assets subject to depreciation,
  - in the part exceeding the fixed assets’ fair value (excluding long-term financial assets quoted on regulated markets) on a one-off basis.

The negative goodwill up to a level which does not exceed the fixed assets’ fair value, excluding long-term financial assets quoted on regulated markets, is deducted by a unit for a period equivalent to the weighted average of the economic life of the purchased assets subject to depreciation. The economic life of these assets adopted by the unit as well as the level of projected costs can become another instrument for influencing the financial results.

According to IAS/IFRS, goodwill arising from the purchase of shares in a dependent company is not subject to depreciation, but at least once a year it must undergo goodwill impairment tests in accordance with the principles of IAS 36 “Impairment of Assets”. An assets impairment evaluation should be conducted whether or not there are any symptoms indicating the company’s goodwill impairment. An important issue in the goodwill impairment test is the adopted estimates related to the establishing of the economic value of a separated subject (e.g. a dependent unit).

Among earnings management instruments related to a company’s goodwill also the very parameter of fair value should be specified. Evaluation of the net assets of a purchased or dependent unit has a considerable impact on the reported goodwill. Appropriate selection of methods and variants allowed in the procedure of fair value assessment may also effectively influence the financial result of a unit or a capital group. Appropriate selection of particular earnings management instruments allows implementing strategies such as:

- increasing the reported loss (big bath),
- improving the structure and value of assets,
- avoiding the reduction of profits in relation to the previous period
- aggressive accounting (MeKee T.E., 2005, p. 1)

46 IAS 36
4. SURVEY RESEARCH RESULTS

The conducted surveys quoted various instruments of earnings management used in economic units and capital groups. This publication has been limited solely to the results related to the establishing and settlement of goodwill.

The conducted surveys, based on a sample of 82 employees of financial-accountancy departments and company managers, revealed many correlations between the analysed companies’ attributes and the application of earnings management tools by these units. These dependencies have been subjected to analysis on the basis of non-parametric coefficients.

In the survey research the following parameters have been taken into consideration: the size of an enterprise measured on the basis of the number of employees, total assets and total incomes on basic operational activity. These values were compared to the extent of the application of tools such as depreciation of acquired goodwill, depreciation deductions on (consolidated) goodwill, deductions due to the impairment of (consolidated) goodwill, deductions on negative (consolidated) goodwill as well as measurement methods and estimates adopted in the (consolidated) goodwill impairment test. The applicability of the tools was measured on a four-point scale.

Also the goals behind the use of a particular earnings management tool by an entity have been subjected to analysis. A possibility of using the tools for such purposes as: avoidance of the reported loss, increasing the reported loss, increasing the reported profit, avoidance of profit reduction compared to the previous period, improving the structure and value of assets, reporting a more stable profit has been taken into account.

The structure of the investigated enterprises indicates prevalence of limited liability companies, which dominated the sample (49.4%). The sample also included joint stock companies (26.6%) and state-owned enterprises (15.2%). The remaining legal forms of the examined organisations are companies wholly owned by the State Treasury (5.1%) and other commercial law partnerships (3.8%).

![Fig. 1 The structure of the companies according to their legal form](image_url)

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47 The surveys were developed and carried out within the framework of a grant of the Minister of Science and Higher Education in Poland – prof. PhD hab. Andrzej Piosik.
Half of the companies employed a maximum of 50 people (49.4%), whereas every fifth company had 50-100 employees. Every tenth company in the test sample employed 100 to 200 people. The same number of companies employed 200-500 people or more than 500 people. Total assets reported by the companies subjected to survey research usually ranged from PLN 1 000 000 to 20 000 000 (38.0%). Total assets of every third examined company did not exceed PLN 1 000 000 (30.4%), while assets in 31.7% of the companies exceeded PLN 20 000 000 (fig. 2).

Fig. 2. The structure of the companies according to total assets

Total revenues on basic operational activity in half of the analysed companies (49.4%) ranged from PLN 1 000 000 to 20 000 000. The reported revenues in the remaining companies were either lower than PLN 1 000 000 (22.8%) or higher than PLN 20 000 000 (27.9%).

Fig. 3. The structure of the companies according to total revenues
Depreciation of acquired goodwill was seldom reported. Only one out of ten companies applied it extensively (10%), and 7% - to a moderate extent. The obtained structure of responses indicates that the number of companies which do not apply depreciation of acquired goodwill is three times higher than the number of companies using it to a large extent (fig. 4).

Fig. 4. The structure of the companies according to acquired goodwill depreciation

A slightly higher number of companies – 15% - apply depreciation deductions on (consolidated) goodwill to a large extent. More than one out of ten companies make use of deductions to a moderate extent (11.3%), that shows fig. 5.

Fig. 5. The structure of the companies according to depreciation deductions on goodwill (consolidated) goodwill – adopted period of settlement
For every company which does not report goodwill depreciation deductions to a large extent there are two companies that never use this tool.

A similar structure is observed in the case of deductions due to (consolidated) goodwill impairment. The deduction is used extensively by 16.3% of companies, whereas every tenth company applied this tool to a moderate extent (fig. 6).

![Fig. 6. The structure of the companies according to the application of goodwill impairment deductions](image)

Deductions on negative consolidated goodwill were applied extensively by 8.9% of companies, whereas 1.3% used them to a moderate extent. However, it is worth noticing that in this case the situation is different than in the case of the previous tools, because this time, for every company which extensively applies deductions on negative consolidated goodwill there are nearly two companies that do not apply this tool at all (13.9%).

![Fig. 7. The structure of the companies according to the application of negative goodwill deductions](image)
It has to be emphasised that the obtained results confirm the fact that both acquired and consolidated negative goodwill is seldom presented. The vast majority of the surveyed replied that this instrument was not used by their unit.

The measurement methods and estimates adopted for the (consolidated) goodwill impairment test were applied by 13.9% of the companies to a large extent and by 11.4% of companies – to a moderate extent. The number of companies which applied the measurement methods and estimates was twice higher than the number of companies not using such tools at all.

Fig. 9. The structure of the companies according to measurement methods and estimates applied in the goodwill impairment test

The analysis of the aim of using earnings management tools has revealed that enterprises apply it in order to improve the structure and value of assets (76.9%), to report a more stable profit (63.1%) and to avoid the reported loss (55.6%) or to increase the reported profit (51.6%), as well as to avoid profit reduction compared to the previous period (50.8%).

An important correlation has been revealed between the size of an enterprise measured on the basis of the number of employees and:

- depreciation of acquired goodwill \( r=0.3818 \) \( p=0.0001 \),
- depreciation deductions on (consolidated) goodwill \( r=0.5024 \) \( p=0.0001 \),
- deductions due to (consolidated) goodwill impairment \( r=0.5380 \) \( p=0.0001 \),
- deductions on negative (consolidated) goodwill \( r=0.3281 \) \( p=0.0001 \),
- measurement methods and estimates applied in the (consolidated) goodwill impairment test \( r=0.5652 \) \( p=0.0001 \).
Another observed thing is an important relationship between the number of employees and the application of earnings management tools by the unit in order to avoid profit reduction compared to the previous period ($r=0.1972 \ p = 0.0273$) and to report a more stable profit ($r=0.1781 \ p=0.0391$). Both dependencies are positive, which means that as the number of employees rises, also the role of earnings management tools in the reporting of a more stable profit and reduction of profits in relation to the previous period increases.

The analysis has also revealed an important correlation between the size of an enterprise measured on the basis of its total assets and:

- depreciation of acquired goodwill ($r=0.2053 \ p=0.0078$),
- depreciation deductions on (consolidated) goodwill ($r=0.3020 \ p=0.0001$),
- deductions due to (consolidated) goodwill impairment ($r=0.3458 \ p=0.0001$),
- measurement methods and estimates applied in the (consolidated) goodwill impairment test ($r=0.3584 \ p=0.0001$).

It has been noted that there is a significant negative correlation between the total assets of an enterprise and its application of earnings management tools in order to increase the reported profit ($r=-0.1949 \ p=0.0239$). Therefore, the bigger the assets, the more seldom earnings management tools are used to increase the reported profit.

The research has revealed a significant correlation between total assets on basic operational activity and:

- depreciation deductions on (consolidated) goodwill ($r=0.2859 \ p=0.0002$),
- deductions due to (consolidated) goodwill impairment ($r=0.3695 \ p=0.0001$),
- measurement methods and estimates applied in the (consolidated) goodwill impairment test ($r=0.3857 \ p=0.0001$).
There is also a significant correlation between the total revenues on basic operational activity of an enterprise and its application of earnings management tools in order to increase the reported profit ($r=-0.2397 \ p=0.0055$). However, this correlation is negative, which means that a growth in total revenues entails a decrease in the application of earnings management tools in order to increase the reported profit.

The analysis of correlations has also revealed significant dependencies between depreciation of acquired goodwill and the entity’s application of earnings management tools in order to increase the reported loss ($r=-0.1796 \ p=0.0375$), as well as for improving the structure and value of assets ($r=0.3071 \ p=0.0003$) and reporting a more stable profit ($r=0.1901 \ p=0.0264$). It is worth noticing that the first of the correlations is negative, which indicates that an increase in depreciation of acquired goodwill encourages companies to apply earnings management tools in order to increase the reported loss less frequently; a different practice is observed in the case of the remaining two goals of using the tools of earnings management.

Calculations also reveal a significant correlation between depreciation deductions on (consolidated) goodwill and the unit’s application of earnings management tools in order to avoid the reported loss ($r=0.3178 \ p=0.0002$), to avoid profit reduction in comparison with the previous year ($r=0.2392 \ p=0.0069$), as well as for improving the structure and value of assets ($r=0.2441 \ p=0.0043$). Also, deductions due to (consolidated) goodwill impairment are correlated with the fact that the unit applies earnings management tools in order to avoid the reported loss ($r=0.3021 \ p=0.0005$), to avoid profit reduction in comparison with the previous year ($r=0.2155 \ p=0.0149$) and for improving the structure and value of assets ($r=0.2688 \ p=0.0017$). On the other hand, deductions on negative (consolidated) goodwill are correlated with the unit’s application of earnings management tools in order to report a more stable profit ($r=0.2411 \ p=0.0048$) as well as to improve the structure and value of assets ($r=0.2610 \ p=0.0023$). The application of measurement methods and estimates adopted to carry out the (consolidated) goodwill impairment test was significantly correlated with the unit’s use of earnings management tools in order to improve the structure and value of assets ($r=0.3063 \ p=0.0004$), as well as for avoiding the reduction of profits in comparison with the previous period ($r=0.2951 \ p=0.0008$).

5. CONCLUSIONS

The presented results confirm the formulated research hypotheses. The majority of the surveyed declared that their companies did not apply goodwill settlement. An increase in the size of an enterprise and a capital group is accompanied by a growth in awareness of the importance of earnings management instruments related to the company’s goodwill. It turned out that the use of goodwill and other related instruments concerned mainly capital groups. As the size of a group measured on the basis of total assets and the number of employees increases, the importance attached to the company’s goodwill and deductions due to the impairment of consolidated goodwill also increases. Another correlation has been revealed between the level of a capital group’s revenue and the estimates adopted when establishing the fair value in connection with the calculation of the consolidated goodwill.

The obtained results indicate a correlation between the importance attached to earnings management tools concerning the company’s goodwill and the earnings management strategy adopted by the management.

The strongest correlation was observed between goodwill depreciation as well as goodwill impairment deductions and the strategy to avoid the reporting of a loss and profit reduction. The surveyed accurately
evaluated the effects of applying particular earnings management instruments connected with goodwill on the specified goals of earnings management. However, some responses show that depreciation deductions are confused with goodwill impairment deductions.

Table 1

1.1. Background information: Business characteristics of a reporting entity or a respondent (BC)

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<td>OC code</td>
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### AUD_R

- a variable equal to 1 if financial statement is audited; 0 otherwise.

### CONS

- a variable equal to 1 if a reporting entity publishes consolidated financial statement; 0 otherwise.

### FUNC

- function/duty of respondent
1.2. **EMT:** Methods/techniques of earnings management; respondents assessed perceived intensity of each method/technique using ranks from 0 to 3

3 - used intensively, 2 - used with moderate intensity, 1 - unimportant, 0 - not applicable

- **DEPR\_G** = depreciation for goodwill
- **DEPR\_GL** = depreciation of goodwill arising on consolidation
- **IMP\_G** = impairment of goodwill arising on consolidation
- **IMP\_NG** = negative goodwill
1.3. EMO: objectives earnings management

- **LOSS_A**: variable equal to 1 if avoidance of accounting loss was expected; 0 otherwise.
- **BBATH**: variable equal to 1 if big bath was expected; 0 otherwise.
- **AG_ACC**: variable equal to 1 if aggrieve accounting was expected; 0 otherwise.
- **ER_A**: variable equal to 1 if avoidance of earnings reduction was expected; 0 otherwise.
- **SVA**: variable equal to 1 if improvement of structure of assets was expected; 0 otherwise.
- **INC_SM**: variable equal to 1 if income smoothing was expected; 0 otherwise.
- **RLOSS_A**: ranks for avoidance of accounting loss, from 1 to 6.
- **RBBATH**: ranks for big bath.
- **RAG_ACC**: ranks for aggressive accounting.
- **RER_A**: ranks for avoidance of earnings reduction.
- **RSVA**: ranks for improvement of structure of assets.
- **RINC_SM**: ranks for income smoothing.
Table 2

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REFERENCES


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TOWARD EFFECTIVE MANAGEMENT OF POST PRIMARY EDUCATION IN EDO STATE: THE APPLICATION OF GHISELLI PERSONALITY INVENTORY.

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Benson Idahosa University, Benin City
Susanna Ohiorenoya *
Zenith Bank PLC, Lagos

Abstract

The paper examined the post primary education in Edo State and determined if there is any significant difference between monogamous family and polygamous family, child – monogamous family and child-polygamous family, parent- monogamous and parent-polygamous families with respect to need for security, need for achievement, need for self-actualization and need for power and need for financial reward. The paper surveyed 27 public secondary schools in Edo state. The questionnaire was Ghiselli personality inventory. A paired sample t-test was used. Results showed: a significant difference between: monogamous families’ n/SAC and polygamous families’ n/SAC, n/ACH, n/PWR and n/FNR; child-monogamous and child-polygamous families’ n/SAC, n/ACH, n/PWR and n/FNR; parent-monogamous families and parent-polygamous families’ n/SAC; no significant difference between: monogamous families’ n/SCR and polygamous families’ n/SCR; child-monogamous and child-polygamous families’ n/SCR and parent-monogamous families and parent-polygamous families’ n/ACH, n/PWR and n/FNR and n/SCR. The paper recommends high need for achievement, high need for power and high need for financial reward for educational managers

Key words: management, education and personality inventory

1. INTRODUCTION

It has been generally observed that the quality and standard of education is on the decline. Various symposia, workshops and seminars have been held all aimed at redressing the sordid decline in education. The reasons adduced for this sordid state of affairs in education in Nigeria have included inadequate classrooms, lack of functional facilities, high pupil/teacher ratio, irresponsible behaviour of pupil, sexual harassment among others. Consequently emphasis has been placed on up-grading infrastructural facilities, provision of adequate classrooms, reading materials, reducing the number of pupils in a class, employment of more teachers and instilling discipline in schools, reorientation of pupils, changing the system of education. Unfortunately, no conscious attention has been given the proper and effective management of post primary education in Edo State. In fact, management of post primary education has been consistently ignored. Even where issues of management occur, they have been treated with half-hearted measures. Thus it is the case that the management of the post primary education in Edo State has been left to the whims and caprices of secondary school’s internal management. Internal management here refers to principals, the vice principals and heads of departments. Although the post primary education board is saddled with the responsibility of formulating policies in schools as well as formulating policies aimed at enforcing discipline, schools are the domain of the these active managers. The result of each post primary school could be directly linked
to the performance of the internal management. Thus the effectiveness and efficiency with which the internal management carries out its daily activities and implement strategic decisions could have pronounced and salutary effective on the performance of the schools.

Therefore efforts at revamping the ailing post primary education in Edo State would be misplaced if no attention is given to its management. Such efforts should therefore consider how to motivate and create a self-motivated management team in the post primary schools in Edo State. Such efforts should also start at rediscovering what factors could motivate the individual actors in the internal running of the secondary schools. Moreover, it should identify and understand the personality factors of post primary education managers (principals, vice principals and heads of department.)

Effective motivation is fundamental to effective leadership in the educational sub sector of the Nigerian economy. Since managers have needs which if and when satisfied could propel them to take rational and wise decisions and also ensure commitment to the implementation of such decisions, identification and measurement of these need factors become expedient.

Most managers of post primary education come from varying background and have differing characteristics. Their family background such as monogamy and polygamy are different and could influence the degree of motivation which they experience and the type of needs which they strive to satisfy. The question that must be asked is to what extent does family background influence the degree of motivation experienced by post primary education managers and what type of needs would propel them to work with zeal and enthusiasm?

In the past in Edo State, most families were polygamous but there is a growing trend towards monogamy apparently because of cultural shift- changes in beliefs, the problems of rivalry in polygamous families and other vices to which a polygamous family was subjected. Except in the predominantly Moslem families, the move is towards monogamous nuclear family occasioned by harsh economic realities and the fact that most females are educated. There appears therefore to be a cultural shift. It is therefore imperative to understand the relationship between family background and the different categories of needs.

Ghiselli personality inventory has been used to score managers on each of these five factors – achievement motivation, need for self actualization, need for power, need for financial reward and need for security – to find out their relative scores on each of the five categories of needs. The purpose of this paper is to apply the Ghiselli personality inventory to determine if:

(i) There is any significant difference between monogamous family and polygamous family with respect to the five factors.
(ii) There is any significant difference between child – monogamous family and child-polygamous family.
(iii) There is any significant difference between the parent- monogamous and parent-polygamous families

2. HYPOTHESES

The following hypotheses have been proposed.

1. There is no significant difference between monogamous family and polygamous family with regard to the five factors.

250 Published by Info Invest, Bulgaria, www.sciencebg.net
2. There is no significant difference between child –monogamous and child polygamous family for the five factors

3. There is no significant difference between parent- monogamous family and parent – polygamous family for the five factors.

3. THEORETICAL FRAMEWORK

The vexed issues of motivation have been over flogged in the academic halls. Many theories and models have been constructed by the different motivational speakers and authorities- all aimed at finding out the factors that motivate individuals to higher performance. No matter the strand of beliefs and how common and old the subject of motivation may be, the ever changing business environment, the globalization of businesses and the intense competition which it engenders as well as the fact that motivation is a dynamic process means that changes in motivational strategies must continuously and constantly be made for survival in this turbulent and dynamic environment. Therefore and since these models are the building blocks of motivation a look at some motivational theories will be instructive.

The issues of achievements, self-actualization, need for power, financial reward and security are motivational. This has been discussed by Maslow, Hertzberg, McClelland and Alderfer. Maslow believes that needs are arranged in hierarchy, starting from lower level needs, such as physiological and safety needs to higher order needs; such as social, esteem and self actualization needs. He believes that when lower order need has been satisfied, higher order needs become pre-potent. Schein (1980: 71) believes that “to settle for lower level needs is a potential waste of human resources, which most organization can ill-afford.”

McClelland identifies three basic needs: need for power, need for achievement and need for affiliation. Alderfer categorizes needs into three: existence needs, relatedness needs and growth needs; while Hertzberg identifies two types of needs: hygiene factors and motivators.

4. METHODOLOGY

The population consisted of secondary schools in Edo State. Edo State was divided into three Senatorial Districts of Edo North, Edo Central and Edo South. Three Local Government Areas (LGAs) were selected in Senatorial Districts based on random sampling. Consequently, Akoko- Edo, Etsako East, and Owan East represented Edo North. Edo Central consisted of Esan North, Esan Central and Esan East while in Edo South: the three LGAs were Ego LGA, Ikpoba- Okha LGA and Oredo LGA. Each selected LGA was further subdivided into Urban, Semi- urban and rural areas. A secondary school was chosen in each of these subdivisions. For instance, in Etsako East LGA, Our Lady of Fatima, Auchi, Girls Grammar School, Uzairue and Ayua Mixed Secondary School representing urban, semi- urban and rural were selected. In the case of Owan East LGA, Otugho Grammar School, Ake, St James Grammar School, Afuze and Warrake Mixed Secondary School, Warrake were selected to represent rural, semi urban and urban respectively. The essence is to make sure that the respondents were widely dispersed and are represented by different social economic background. Similar actions were taken for Edo Central and Edo South.

Altogether, a total of twenty-seven (27) secondary schools representing about 50% of the entire secondary schools were used. 64 questions involving two adjectives each were administered. A respondent was asked to choose from any alternative that he or she considered describing him or her
best. Or she was made to know that no choice was right or wrong. The sixty four questions were patterned according to the ones used by Ghiselli (1985). Each secondary school teachers who hold management positions were considered viz heads of departments, vice- principals, and principals. One interesting development is the fact that a secondary school is now divided into Senior Secondary School and Junior Secondary each being run by two different management teams. In other words, each has its own principal, vice-principal and different heads of department. Thus even in a small school there could be at least six management staff. This meant a minimum of six respondents was available to whom questionnaires were administered. In Our Lady of Fatima, Auchi and St James Secondary school, Afuze, there was not less than twelve (12) management staff each. Questionnaires were administered to this category of staff. For the twenty- seven secondary schools chosen, a total of 200 questionnaires were administered out of which 150 were returned representing 75%. Of the 150 returned 36 were not filled leaving 114 questionnaires which were filled and returned. This occurred because some of the management staff was busy conducting examinations and so could not pay attention to filling out the questionnaires. It should be noted that convenience sampling was used to administer questionnaires as only the staff that were available at the time of visit were used. Therefore, the researcher could not include all management staff in the sample. Attempts should have been made to revisit but constraint of time and finance made that alternative impossible.

5. METHOD OF ANALYSIS

A t–distribution was used to show if differences exist between monogamous families and polygamous families, Child –monogamous and child polygamous, parent monogamous and parent-polygamous families on the five attributes. Both one- way and two- way t-distribution was used to show if differences exist between them. The total weighted scores of each respondent was taken .114 by 5 matrix was formed (Wadpole1987).

6. DATA PRESENTATION AND ANALYSIS

114 questionnaires were sorted and arranged into Monogamous Family and Polygamous Family. Interestingly, 56 and 58 representing 49%and 51% monogamous and polygamous families respectively were recorded. The polygamous family was clustered around Child –Polygamous and Parent –polygamous while the monogamous family was also clustered around Child –Monogamous and Parent –Monogamous. This made a cluster of four.

Ghiselli Personality Inventory keys for determining the total scores of each respondent on the different attribute of Need for Power, Need for Self –Actualization, Need for Financial Reward, Achievement Motivation and Need for Security were used. Ghiselli provided two adjectives for each question. A respondent was asked to tick which one best describes him or her. Either top or bottom objective was correct. In each case he provided a rating scale which gave ordinal scores of 1, 2, 3 or 4. Where the top adjective appropriately describes the characteristics of the individual respondent, a score indicating the relevance of the adjective to the characteristics is given. The sum total of the scores for each attribute describes whether that respondent had a higher, medium or low Achievement Motivation, Need for Self –Actualization, Need for Power, Need for Financial Reward and Need for Security.
7. HYPOTHESES TESTING

Hypothesis 1

$H_0$: There is no difference between monogamous families and polygamous families when the five factors are compared paired-wise.

$H_1$: There is significant difference between monogamous family and polygamous family when the five factors are compared paired-wise.

Data analysis shows that $t$ stat (-2.791) < $t$ 0.05 (1.672) or (2.0032) for one tail and two tail respectively. We accept the null hypothesis $H_0$ and conclude that there is no significant difference between monogamous families’ n/ACH and polygamous families’ n/ACH. Monogamous families’ n/SAC is not significantly different from polygamous families’ n/SAC since $t$ stat(-2.000) < $t$ 0.05 (1.672) or 2.0032. There is also no significant difference between monogamous families’ n/PWR and polygamous families’ n/PWR. This is because $t$ stat (0.575) < $t$ 0.05 (1.672) or 2.0032. We accept the null hypothesis $H_0$ and conclude that there is no significant difference between monogamous families’ n/FNR and polygamous families’ n/FNR.

Hypothesis 2

$H_0$: There is no difference between child-monogamous families and child-polygamous families when the five factors are compared paired-wise.

$H_1$: There is significant difference between child-monogamous families and child-polygamous families when the five factors are compared paired-wise.

In the case of child monogamous and child polygamous families’ n/ACH, data analysis reveals that $t$ stat (2.462) > $t$ 0.05 (1.697) or (2.042) for one tail and two tail respectively. We reject the null hypothesis $H_0$ and conclude that there is significant difference between child-monogamous families’ n/ACH and child-polygamous families’ n/ACH. $t$ stat(5.371) > $t$ 0.05 (1.697) or (2.042) for child-monogamous families’ n/SAC and child-polygamous families’ n/SAC (one tail and two tail) respectively. We reject the null hypothesis $H_0$ and conclude that there is significant difference between child-monogamous families’ n/SAC and child-polygamous families’ n/SAC. $t$ stat(4.408) > $t$ 0.05 (1.697) or (2.042) for one tail and two tail respectively. We reject the null hypothesis $H_0$ and conclude that there is significant difference between child-monogamous families’ n/PWR and child-polygamous families’ n/PWR, since $t$ stat(2.143) > $t$ 0.05 (1.697) or (2.042) for one tail and two tail respectively. We reject the null hypothesis $H_0$ and conclude that there is significant difference between child-monogamous families’ n/FNR and child-polygamous families’ n/FNR.

Hypothesis 3

$H_0$: There is no difference between parent-monogamous families and parent-polygamous families when the five factors are compared paired-wise.

$H_1$: There is significant difference between parent-monogamous families and parent-polygamous families when the five factors are compared paired-wise.
Data analysis reveals that $t_{stat}(4.839) > t_{0.05}(1.683)$ or $(2.042)$ for one tail and two tail respectively. We reject the null hypothesis $H_0$ and conclude that there is significant difference between parent-monogamous families’ $n/ACH$ and parent-polygamous families’ $n/ACH$. $t_{stat}(1.637) < t_{0.05}(1.697)$ or $(2.042)$ for one tail and two tail respectively. We accept the null hypothesis $H_0$ and conclude that there is no significant difference between parent-monogamous families’ $n/SAC$ and parent-polygamous families’ $n/SAC$. $t_{stat}(-3.867) < t_{0.05}(1.697)$ or $(2.042)$ for one tail and two tail respectively. We reject the null hypothesis $H_0$ and conclude that there is significant difference between parent-monogamous families’ $n/PWR$ and parent-polygamous families’ $n/PWR$. $t_{stat}(2.143) > t_{0.05}(1.697)$ or $(2.042)$ for one tail and two tail respectively. We accept the null hypothesis $H_0$ and conclude that there is no significant difference between parent-monogamous families’ $n/FNR$ and parent-polygamous families’ $n/SCR$. $t_{stat}(-3.158) < t_{0.05}(1.697)$ or $(2.042)$ for one tail and two tail respectively.

8. SUMMARY OF FINDINGS

There is no significant difference between monogamous families’ $n/ACH$ and polygamous families’ $n/ACH$ and monogamous families’ $n/SAC$ is not significantly different from polygamous families’ $n/SAC$. The most plausible reasons for these phenomena is that because in a monogamous family, consensus toward a goal or target is easily reached and so there is commitment among family members which compels them to have desire for achievement motivation while in a polygamous family, rivalry and the desire to lift one’s branch to a higher position propels them to have positive achievement motivation. There may not necessarily be a significant difference between their need for achievement. But there is no significant difference between monogamous families’ $n/PWR$ and polygamous families’ $n/PWR$. This is expected because each family line in a polygamous family is likely to want to amass power in order to dominate the other but this is not possibly needed in a monogamous family. There is also no significant difference between monogamous families’ $n/FNR$ and polygamous families’ $n/FNR$ and monogamous families’ $n/SCR$ and polygamous families’ $n/SCR$. This could be explained by the fact monetary rewards are necessary to maintain the status quo in a wealthy monogamous family and to lift the poor monogamous family from poverty line just as in polygamous family. Also financial rewards would be necessary to meet the need for achievement and self actualization in both families. Every family needs to satisfy the need for security before seeking to satisfy higher level needs. There is therefore likely to be no significant difference between the two families with regard to the need for security.

1. The null hypothesis is rejected for all the five pair-wise comparisons indicating that there is significant difference between child-monogamous and child-polygamous families’ $n/ACH$, $n/SAC$, $n/PWR$, $n/FNR$ and $n/SCR$. Children from monogamous families who are themselves monogamous tend to be dependent, caring and desire stability and security above all. They are also likely to live a happy and social relationship just as parent-monogamous families. The tendency is toward cooperation and joint effort. Team spirit is thus developed which influences action toward a goal. They are therefore likely to be more achievement motivated than child polygamous families. Children from polygamous families who are monogamous should have noticed the evil effects of polygamy and are likely to behave in the same way as children from monogamous families. Children from polygamous families who are themselves polygamous are possibly satisfied with conditions present in a polygamous family set up and may just choose to behave like their parents.
2. While there is significant difference between parent-monogamous families and parent-polygamous families' n/ACH and n/FNR, no significant differences exist between parent-monogamous families and parent-polygamous families' n/SAC, n/PWR and n/SCR. A child from a polygamous family who has chosen to be polygamous ought to exhibit the same characteristics as a parent-polygamist. The only tangible reason one can adduce is that he would likely desire to improve on the short comings of his parent-polygamous family.

9. CONCLUSION

To revamp the educational system in Edo State, management should be driven by the high need for achievement, high need for power and moderate need for affiliation. The high need for power should not be used for personal aggrandizement but for stimulating people towards the achievement of the educational goals of post-primary education. In addition, managers of post-primary education in Nigeria must have entrepreneurial spirit. Principals, vice-principals and heads of departments who are motivated by challenging and competitive work situation are required. Where this situation does not exist it should be created. This is important because there is high degree of correlation between high performance and high need for achievement. Work in the schools should be made stimulating, challenging and satisfying. To be star performers, school managers should be emotionally intelligent.

Since workers like autonomy, variety and frequent feedback, employees with high need for achievement should be identified and given varied jobs and constant feedback on their performance. Those with low need for achievement should be given simple task.

Any meaningful and worthwhile strategy aimed at revamping the falling standard of post-primary education in Edo State must include identifying specific personality traits as well discovering the type and nature of family in terms of whether monogamous, polygamous, child monogamous, child polygamous, parent monogamous and parent polygamous in order to able to predict the likely personality traits of managers in the post-primary education system. Identifying the type of family can be made possible through specifying in an application form the type of family they belong, either as potential candidates or as existing managers vying for promotion.

In the final analysis it is the emotionally intelligent school leaders that would make a difference between failure and success in post-primary education in Edo State.

REFERENCES


AN EMPIRICAL VIEW AT THE DIFFERENCES BETWEEN ETFS AND INDEX FUNDS.

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Abstract

In this paper we conduct an empirical comparison of 12 ETFs and index funds performance that in pairs track the same indices, using data for the period from 01/01/2009 to 01/07/2013. We evaluated their average return, risk, and the ability to follow the index. A regression of ETFs and index funds returns on the benchmark, showed us that neither ETFs, nor index funds outperform their benchmark results. For both types of funds, we evaluated the average tracking error, finding that ETFs more accurately track the index. We also constructed a regression of the average return on the expense ratio, and found a significant positive relation for index funds, which is not true for the ETFs.

Key words: exchange-traded fund, index fund, performance, tracking error, benchmark, expense ratio.

1. INTRODUCTION

In this paper, we use a group of 12 ETFs and corresponding index mutual funds that track the same index, in order to compare their performance in the time interval 01/01/2009 – 01/07/2013 and to determine whether there are significant differences between them linked to the specificities of these funds. In the second part, we present a brief overview of researches related to ours. In the third section, we describe the main similarities and differences between ETFs and index mutual funds, trying to highlight the characteristics of each type, which can lead to a difference in performance. In the fourth section we describe the data for our analysis. In the following section we calculate and compare the basic performance characteristics – such as average daily return and volatility, as measured by the standard deviation. In the sixth section, we present the results of the regression analysis in which we construct dependency of daily ETFs and index funds returns on the underlying index returns. One of our goals is to determine – whether the funds outperform their benchmarks in profitability, despite the passive management nature of the funds, and another is to determine how accurately they track the underlying indices and compare the types of funds among themselves on this characteristic. We use several methods to calculate the tracking error – the deviation from the benchmark return. In the seventh part, we analyze the relationship between the yields of the funds and their management costs, trying to determine the impact of the cost expenses on the performance. In the final section, we summarize the results of our study.

2. LITERATURE REVIEW

There are many empirical studies of classical mutual funds considering its performance, factors that affect it. Due to the rapid increase in the supply of ETFs and its relative novelty there is less attention to
these financial instruments in scientific literature. However, we can mention some empirical studies of ETFs dedicated to characteristics closed to those studied in this article.

Elton, Gruber, Comer and Li (2002) found that the S&P 500 index, and the corresponding index funds outperform SPDR (ETF). They attributed this to the fact that ETF dividends received on the underlying assets are not reinvested, but held in the form of cash.

Poterba and Shoven (2002), comparing pre-tax and after-tax rate of return in 1994-2000 years of largest ETFs – SPDR and Vanguard Index 500 Fund (both are tied to S&P 500), came to the conclusion that these funds have almost the same performance.

Rompotis (2005) based on a sample of 16 pairs of ETFs and index funds tracking the same index, using data for 2001-2002 years, conducted an empirical comparison of these types of funds. It was found that both ETFs, and index funds have the same level of average risk and average return. Data on the last trading price for ETFs and the NAV at the end of trading day for index funds showed a statistically significant difference in funds absolute returns. Using regression analysis Rompotis concluded that neither ETFs nor index funds do not reach returns greater than the indexes they follow. As for the tracking error, it has been shown that these funds are also comparable. Expenses of these funds were also studied, and found a significant positive relationship between the average return and expense ratio for the ETFs, which was not observed for index funds.

Svetina and Wahal (2008) analyzed a sample of more than 500 U.S. and international stock and bond ETFs since their introduction until 2007, trying to examine the performance of ETFs and what kind of competitors they are to index funds. Based on the analysis, they concluded that, for individual investors, ETF performance based on gross returns is not statistically distinguishable from the corresponding performance of mutual funds.

Gallagher and Segara (2005) in the analysis of Australian ETFs found that classical ETFs reward investors with return (before expenses) proportionally to return of the index. Moreover, ETFs have lower tracking error than corresponding index funds. Deviations between the trading price and net asset value were rare and insignificant.

We conducted our own investigation, largely based on the work of Rompotis (2005), but using more actual data and another sample of funds.

3. COMPARISON OF ETFS AND INDEX MUTUAL FUNDS

An important similarity, inherent to both ETFs and index funds is their passive investment management. Both types of funds track a popular sector or broad market index and offer investors an easy access to specialized and diversified portfolio of shares, both types have high liquidity and transparency. Passive management is reflected in the relatively low cost of operation. However, ETFs are subject to transaction costs and commissions to brokers, while index funds – are not. On the other hand, mutual funds include payments on redemption and / or repurchasing of shares, unless the funds are no-load (do not charge any commission on the sale of their shares to investors, or at the exit of investors from the fund), latter are the most of Vanguard funds.

Another similarity of ETFs and index mutual funds (although they have to replicate the profitability of an underlying index) is that there is still a little difference between their returns and returns of indexes. Factors such as cost control, partial replication strategy – difference between the composition of the
fund and the composition of the fund benchmark, cause differences, called tracking error. In the proper part of this article we will reveal which of the types of funds has a lower tracking error.

Substantial differences between index funds and ETFs are next: ETF shares are traded throughout the day on the stock exchanges at prices determined by the market. Shares of index funds can be bought and sold only at the end of the day at the net asset value (NAV). Investors can buy and sell ETF shares through a broker, just as they do with stocks of public companies, ETF shares can be sold short or bought on margin, that is not an option for shares of index funds. Most often the market price of the shares is slightly different from the ETF net asset value of portfolio assets. Initial and secondary markets for ETFs are closely linked due to «in-kind» process of creation and redemption of ETF shares. Sale of shares is made not directly to the end investor, but with initial offering in large blocks (creation units, for example, 50 000 units) to authorized participants (creation agents). If the demand from investors for ETF shares increases, authorized participants transfer a portfolio securities defined by ETF investment strategy to the sponsor, and in return receive shares of the ETF, which they sell to private and institutional investors on the stock exchange. The process of redemption is similar but is done inversely. If the demand for ETF shares falls, the authorized participants return ETF shares to the fund, and receive a portfolio of securities. «In-kind» process opens arbitrage opportunities to authorized participants and help to avoid ETF shares trading at a significant discount or premium to net asset value. Arbitrage opportunities are absent for index funds. The process of creation and redemption of ETF shares has tax advantages comparing to traditional mutual funds. If redemption is made in cash, the fund has to sell assets from its portfolio and in the case of appreciation has to recognize capital gains and, therefore, the basis for taxation for all owners of shares of the fund. Because of this, cash redemption is not welcome in ETFs and is made less attractive by charging large commissions and using value of net assets calculated in a few days after the submission of claims for redemption. On the other side, «in-kind» redemption does not require the sale of fund shares, resulting in no tax liability for the remaining shareholders of ETF.

4. DATA

In our analysis, we use daily data for 12 pairs of ETFs and index funds that track the same indexes. Considering the passive character of management strategy, we choose ETFs and index funds in such way that they track the same indexes because the objective of the study is to compare these types of funds among themselves. G. Rompotis in the article «An Empirical Comparing Investigation on Exchange Traded Funds and Index Funds Performance» (2005), conducted similar research, but it was based on a shorter time period of 2001 – 2002 years. For the majority of the funds in our article the study period for returns and tracking error extends from 01/01/2009 to 01/07/2013, which is 1130 observations. In our sample U.S. broad indexes are present, including small- and large-cap stocks, growth stocks and value stocks. This research considers ETFs and index funds containing only stocks, and does not apply to fixed income, commodity ETFs or any other, similar to Rompotis’ research.

Half of our ETFs are issued by BlackRock Group, which in December 2009 acquired Barclays Global Investors Group, (6 of 12), two – by State Street Global Advisors, Vanguard Group has sponsored four, and one is referred to Fidelity investments. Index funds form our study mostly belong to Vanguard Group. Four of them are relatively new, and this data is only available from September 2010. One index fund refers to Blackrock Group, and another – to Fidelity investments. Historical price data for ETFs we got from the website Zecco Holdings and YAHOO! Finance: for indexes and index funds in the database YAHOO! Finance. Fee and commission expenses are available at Vanguard, iShares, Zecco holdings and YAHOO! Finance.
We did not use the bid-ask prices for ETFs returns estimation as we have difficulties in obtaining relevant data, and also Rompotis in his study mentioned that returns and tracking error for ETFs determined with bid-ask prices are not an appropriate way for comparing with returns and tracking error of index funds calculated using net asset value.

5. DESCRIPTIVE STATISTICS

In this section we present and compare the results of daily returns and volatility of ETFs, index funds and underlying indices. Opposed to Elton, Gruber, Comer and Li (2002) [5], who used net asset value (NAV) for calculation of SPDRs returns, we use data on daily closing prices for ETFs – the difference between the closing prices on two consecutive days divided on the closing price on the first of these days. We do not use the bid-ask prices to calculate returns, since, as already mentioned, we had difficulties with obtaining the data, and also because Rompotis in a similar study (2005) noted that returns and tracking errors for ETFs, determined with bid-ask prices are not an appropriate choice for comparing with returns and tracking errors of index funds computed using NAV. Return of index funds is measured by net asset value – the difference between the values in two consecutive days is divided by net asset value on the first of these days. Similarly to ETFs we evaluate the returns of the underlying indices. It should be noted that as in Malkiel research (1995) we measure ETFs and index funds returns, assuming that all dividends and capital gains are reinvested on the ”ex-dividend” date at a cost of ”ex-dividend” or NAV.

Table 1 contains the basic statistical characteristics of ETFs. The first column is a fund ticker according to its quoting on a stock exchange, next – index which return ETF replicates. The third column is the average return for the period as a percentage, calculated as the average of daily returns. In the fourth column – the average rate of return for the period, calculated as the geometric mean of the daily returns, then – the volatility measured by standard deviation of the average daily returns. The low level of volatility indicates good portfolio diversification, so that investors bear only market systematic risk. Table 1 also contains average median value of 0.11%, which is above the average value equal to 0.069% and indicates the presence of abnormally low values in the sample, the average maximum and minimum for the period of study, the number of days of observation.

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Index</th>
<th>Mean daily returns, %</th>
<th>Return for the period, %</th>
<th>Stand dev., %</th>
<th>Median, %</th>
<th>Max, %</th>
<th>Min, %</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWB</td>
<td>Russell 1000</td>
<td>0.057</td>
<td>42.95</td>
<td>1.08</td>
<td>0.08</td>
<td>4.49</td>
<td>-6.71</td>
<td>696</td>
</tr>
<tr>
<td>IWM</td>
<td>Russell 2000</td>
<td>0.066</td>
<td>47.33</td>
<td>1.47</td>
<td>0.12</td>
<td>6.66</td>
<td>-8.71</td>
<td>696</td>
</tr>
<tr>
<td>IWO</td>
<td>Russell 2000 Growth</td>
<td>0.083</td>
<td>119.25</td>
<td>1.65</td>
<td>0.09</td>
<td>7.43</td>
<td>-8.70</td>
<td>1130</td>
</tr>
<tr>
<td>IWN</td>
<td>Russell 2000 Value</td>
<td>0.060</td>
<td>41.61</td>
<td>1.44</td>
<td>0.14</td>
<td>6.72</td>
<td>-8.76</td>
<td>696</td>
</tr>
<tr>
<td>IWV</td>
<td>Russell 3000</td>
<td>0.058</td>
<td>43.60</td>
<td>1.12</td>
<td>0.10</td>
<td>4.85</td>
<td>-6.85</td>
<td>696</td>
</tr>
</tbody>
</table>
Total return for the period, is calculated on the basis of the geometric average return, which in turn is calculated using daily data, and shows how the initial investment in the fund would increase during the period of observation. The average return for the period, equal to 104.12 % calculated only for those funds, for which the observation period is 1130 days. It is necessary for conducting a comparative analysis between different types of funds in general, and a shorter observation period distorts the results for the entire group of funds in the sample.

Return and volatility of index funds is presented in Table 2. The average daily return of index funds is very close to ETFs return and larger only in 0.001%. With the help of t-test, we determined that the difference between the average returns of ETFs and index funds are statistically insignificant. During the study period ETFs showed more growth than index funds, as evidenced by comparing the average return for the period. Median is also greater than the average value.

### Table 2. Statistical characteristics of index funds.

<table>
<thead>
<tr>
<th>Ticker</th>
<th>Index</th>
<th>Mean daily returns, %</th>
<th>Return for the period, %</th>
<th>Stand dev., %</th>
<th>Median, %</th>
<th>Max, %</th>
<th>Min, %</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRNIX</td>
<td>Russell 1000</td>
<td>0.058</td>
<td>43.27</td>
<td>1.10</td>
<td>0.08</td>
<td>4.95</td>
<td>-6.85</td>
<td>696</td>
</tr>
<tr>
<td>VRTIX</td>
<td>Russell 2000</td>
<td>0.070</td>
<td>50.29</td>
<td>1.51</td>
<td>0.13</td>
<td>6.94</td>
<td>-8.90</td>
<td>696</td>
</tr>
<tr>
<td>MCSWX</td>
<td>Russell 2000 Growth</td>
<td>0.058</td>
<td>63.94</td>
<td>1.68</td>
<td>0.10</td>
<td>6.91</td>
<td>-9.68</td>
<td>1130</td>
</tr>
<tr>
<td>VRTVX</td>
<td>Russell 2000 Value</td>
<td>0.068</td>
<td>48.19</td>
<td>1.50</td>
<td>0.12</td>
<td>6.87</td>
<td>-8.80</td>
<td>696</td>
</tr>
<tr>
<td>VRTTX</td>
<td>Russell 3000</td>
<td>0.059</td>
<td>43.86</td>
<td>1.13</td>
<td>0.08</td>
<td>5.10</td>
<td>-7.02</td>
<td>696</td>
</tr>
<tr>
<td>VIMSX</td>
<td>S&amp;P 400 MidCap</td>
<td>0.081</td>
<td>119.92</td>
<td>1.51</td>
<td>0.12</td>
<td>7.25</td>
<td>-7.93</td>
<td>1130</td>
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<tr>
<td>VPMCX</td>
<td>S&amp;P 500</td>
<td>0.062</td>
<td>83.79</td>
<td>1.27</td>
<td>0.10</td>
<td>6.65</td>
<td>-6.27</td>
<td>1130</td>
</tr>
<tr>
<td>VFNX</td>
<td>S&amp;P 500</td>
<td>0.059</td>
<td>78.19</td>
<td>1.28</td>
<td>0.09</td>
<td>7.08</td>
<td>-6.65</td>
<td>1130</td>
</tr>
</tbody>
</table>
Return for the period for both types of funds is less than the return of the benchmark, which is consistent with the result of Rompotis about the hypothesis that funds on average don’t outperform their benchmarks.

It should be noted that ETFs and index funds showed close values of average daily returns as in Rompotis study. Volatility, measured by standard deviation, was also greater for indices than for ETFs and index funds. The maximum and minimum of index funds is almost equal and less respectively than of ETFs, which indicates a greater dispersion of values.

Results for indices themselves are presented in Table 3.

### Table 3. Statistical characteristics of indices.

<table>
<thead>
<tr>
<th>Index</th>
<th>Mean daily returns, %</th>
<th>Return for the period, %</th>
<th>Stand dev., %</th>
<th>Median, %</th>
<th>Max, %</th>
<th>Min, %</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell 1000</td>
<td>0.057</td>
<td>42.59</td>
<td>1.10</td>
<td>0.07</td>
<td>4.95</td>
<td>-6.87</td>
<td>696</td>
</tr>
<tr>
<td>Russell 2000</td>
<td>0.069</td>
<td>48.85</td>
<td>1.51</td>
<td>0.13</td>
<td>6.94</td>
<td>-8.91</td>
<td>696</td>
</tr>
<tr>
<td>Russell 2000 Growth</td>
<td>0.084</td>
<td>120.06</td>
<td>1.70</td>
<td>0.10</td>
<td>7.68</td>
<td>-8.97</td>
<td>1130</td>
</tr>
<tr>
<td>Russell 2000 Value</td>
<td>0.062</td>
<td>42.54</td>
<td>1.49</td>
<td>0.12</td>
<td>6.90</td>
<td>-8.85</td>
<td>696</td>
</tr>
<tr>
<td>Russell 3000</td>
<td>0.058</td>
<td>43.06</td>
<td>1.13</td>
<td>0.09</td>
<td>5.11</td>
<td>-7.04</td>
<td>696</td>
</tr>
<tr>
<td>S&amp;P 400 MidCap</td>
<td>0.059</td>
<td>77.83</td>
<td>1.28</td>
<td>0.09</td>
<td>7.08</td>
<td>-6.66</td>
<td>1130</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>0.080</td>
<td>115.65</td>
<td>1.53</td>
<td>0.12</td>
<td>7.37</td>
<td>-8.25</td>
<td>1130</td>
</tr>
<tr>
<td>MSCI Broad Market</td>
<td>0.063</td>
<td>84.88</td>
<td>1.32</td>
<td>0.09</td>
<td>7.10</td>
<td>-7.03</td>
<td>1130</td>
</tr>
<tr>
<td>MSCI MidCap 450</td>
<td>0.080</td>
<td>117.16</td>
<td>1.51</td>
<td>0.12</td>
<td>7.24</td>
<td>-7.92</td>
<td>1130</td>
</tr>
<tr>
<td>MSCI Small Cap 1750</td>
<td>0.083</td>
<td>118.02</td>
<td>1.68</td>
<td>0.13</td>
<td>8.17</td>
<td>-8.76</td>
<td>1130</td>
</tr>
<tr>
<td>Nasdaq Composite</td>
<td>0.078</td>
<td>115.80</td>
<td>1.37</td>
<td>0.10</td>
<td>7.07</td>
<td>-6.90</td>
<td>1130</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>0.070</strong></td>
<td><strong>107.06</strong></td>
<td><strong>1.42</strong></td>
<td><strong>0.11</strong></td>
<td><strong>6.87</strong></td>
<td><strong>-7.83</strong></td>
<td><strong>1130</strong></td>
</tr>
</tbody>
</table>
We should note that, in our sample the average daily return of ETFs is slightly smaller than of indices themselves, partly because of the presence of management expenses. Volatility of benchmarks is also slightly higher than of corresponding funds.

Despite the similar characteristics of these types of funds, they co-exist in the financial market. Agapova (2009, 2010) researched the competition between the traditional index mutual funds and ETFs. Her research has proved that these two types of financial instruments are substitutes, but they are not perfect substitutes. The coexistence of these similar types of funds she explains with clientele effect, which disseminates these two instruments in two different market niches.

6. REGRESSION ANALYSIS.

Our regression model for estimating tracking error of the fund with number $k$ is presented further:

$$\text{fund}_k = \alpha_k + \beta_k \cdot \text{benchmark}_k + \epsilon_k,$$

where $\text{fund}_k$ – daily return of a fund, $\text{benchmark}_k$ – daily return of a tracking index. $\alpha_k$ – reflects the value of return that a fund manager reaches regardless of the index performance, or the value of return that an investor can get if there is no relationship between the fund and the index. $\beta_k$ describes the degree of precision with which the return of the fund replicates the return of the index, or in other words the sensitivity of the fund return to index return. $\epsilon_k$ – residual differences of the regression. As these funds are created in order to replicate accurately the movements of the benchmark, it is expected that $\alpha_k$ will be statistically insignificant and $\beta_k$ – close to one.

Table 4 presents the results of our regression calculated for the corresponding ETFs and index funds. In constructed regressions we are faced with the presence of serial correlation. Serial correlation is found in the regressions, built for ETFs, and only in some cases for index funds. Since serial correlation does not distort the values of coefficients in the model, but only the standard deviation of the coefficients, we exclude the impact of serial correlation in the standard deviation, t-statistics and, respectively, p-value, using Hansen method, known also as Newey-West method. Thus we are relieved from distortions of significance arising from presence of serial correlation. It should be noted that our calculations are based on the gross daily returns, from which any expenses are not removed. The average value $\alpha_k$ for ETFs is 0.0013% and it is not statistically significant, as the average t-statistic is only 0.47, and the critical value is 4.6. The average value for the index funds $\overline{\alpha} = -0.0002%$. But this value is also statistically indistinguishable from zero, as the average t-statistic is equal to 0.355. Mean $\overline{\beta}_{ETF} = 0.976$ for ETFs is less than one for index funds, for which the average value $\overline{\beta}_{IF} = 0.991$, which indirectly indicates a more precise index tracking by index funds than by ETFs. After conducting a t-test, we found that the coefficients for both types of funds are different from one.

Table 4. This table presents the results of the regression $\text{fund}_k = \alpha_k + \beta_k \cdot \text{benchmark}_k + \epsilon_k$, calculated for the corresponding ETFs and index funds. $\text{fund}_k$ – fund return, $\text{benchmark}_k$ – index return.
<table>
<thead>
<tr>
<th>Index</th>
<th>ETF</th>
<th>IF</th>
<th>$\alpha_i$</th>
<th>$\beta_i$</th>
<th>$R^2$</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell 1000</td>
<td>IWB</td>
<td>VRNIX</td>
<td>0.002</td>
<td>0.001</td>
<td>0.974</td>
<td>0.996</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.53)</td>
<td>(0.38)</td>
<td>(126.52)</td>
<td>(199.51)</td>
</tr>
<tr>
<td>Russell 2000</td>
<td>IWM</td>
<td>VRTIX</td>
<td>0.000</td>
<td>0.001</td>
<td>0.969</td>
<td>0.999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.01)</td>
<td>(0.54)</td>
<td>(306.22)</td>
<td>(1103.29)</td>
</tr>
<tr>
<td>Russell 2000</td>
<td>IWO</td>
<td>MCSWX</td>
<td>0.002</td>
<td>-0.022</td>
<td>0.967</td>
<td>0.950</td>
</tr>
<tr>
<td>Growth</td>
<td></td>
<td></td>
<td>(0.33)</td>
<td>(-1.61)</td>
<td>(333.04)</td>
<td>(117.85)</td>
</tr>
<tr>
<td>Russell 2000</td>
<td>IWN</td>
<td>VRTVX</td>
<td>0.001</td>
<td>0.006</td>
<td>0.963</td>
<td>0.999</td>
</tr>
<tr>
<td>Value</td>
<td></td>
<td></td>
<td>(0.20)</td>
<td>(2.02)</td>
<td>(253.02)</td>
<td>(800.02)</td>
</tr>
<tr>
<td>Russell 3000</td>
<td>IWV</td>
<td>VRTTX</td>
<td>0.001</td>
<td>0.001</td>
<td>0.988</td>
<td>1.001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.45)</td>
<td>(0.36)</td>
<td>(295.72)</td>
<td>(467.26)</td>
</tr>
<tr>
<td>S&amp;P 400</td>
<td>MDY</td>
<td>VIMSX</td>
<td>0.001</td>
<td>0.003</td>
<td>0.987</td>
<td>0.980</td>
</tr>
<tr>
<td>MidCap</td>
<td></td>
<td></td>
<td>(0.55)</td>
<td>(0.51)</td>
<td>(313.11)</td>
<td>(246.33)</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>IVV</td>
<td>VPMCX</td>
<td>0.001</td>
<td>0.005</td>
<td>0.985</td>
<td>0.966</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.38)</td>
<td>(0.52)</td>
<td>(273.05)</td>
<td>(130.55)</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>SPY</td>
<td>VFINX</td>
<td>0.001</td>
<td>0.000</td>
<td>0.984</td>
<td>0.999</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.33)</td>
<td>(0.12)</td>
<td>(327.39)</td>
<td>(648.76)</td>
</tr>
<tr>
<td>MSCI Broad</td>
<td>VTI</td>
<td>VTSMX</td>
<td>0.001</td>
<td>0.000</td>
<td>0.976</td>
<td>1.001</td>
</tr>
<tr>
<td>Mkt</td>
<td></td>
<td></td>
<td>(0.49)</td>
<td>(-0.03)</td>
<td>(310.58)</td>
<td>(689.40)</td>
</tr>
<tr>
<td>MSCI MidCap</td>
<td>VO</td>
<td>VIMAX</td>
<td>0.002</td>
<td>0.001</td>
<td>0.990</td>
<td>0.999</td>
</tr>
<tr>
<td>450</td>
<td></td>
<td></td>
<td>(0.76)</td>
<td>(0.58)</td>
<td>(379.72)</td>
<td>(653.68)</td>
</tr>
<tr>
<td>MSCI Small</td>
<td>VB</td>
<td>NAESX</td>
<td>0.003</td>
<td>0.001</td>
<td>0.970</td>
<td>0.999</td>
</tr>
<tr>
<td>Cap 1750</td>
<td></td>
<td></td>
<td>(0.88)</td>
<td>(0.38)</td>
<td>(231.89)</td>
<td>(720.63)</td>
</tr>
<tr>
<td>Nasdaq</td>
<td>ONEQ</td>
<td>FNCMX</td>
<td>0.003</td>
<td>0.001</td>
<td>0.961</td>
<td>1.001</td>
</tr>
<tr>
<td>Composite</td>
<td></td>
<td></td>
<td>(0.78)</td>
<td>(0.50)</td>
<td>(147.49)</td>
<td>(884.86)</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td></td>
<td>0.001</td>
<td>0.000</td>
<td>0.976</td>
<td>0.991</td>
</tr>
</tbody>
</table>

To summarize constructed regression it should be noted that neither ETFs, nor index funds exceed underlying benchmarks in their results as regression coefficients $\alpha_i$ are not statistically different from
zero. According to its results, we can also note a bit more accurate tracking by index mutual funds, but confirmation also requires testing with other techniques presented below.

For a more accurate research of fund management abilities, in particular, the ability to choose stocks and time of the purchase, regression \( fund_k = \alpha_k + \beta_k \text{benchmark}_k + \delta_k \text{benchmark}_k^2 + \varepsilon_k \) can be constructed, according to Bollen and Busse (2001) model, as well as Korkie and Turtle (2002). This can be a direction for a more detailed research.

7. TRACKING ERROR

Although ETF is designed to reflect the return of an underlying index, deviations from the index return can still exists, such as those caused by costs of management or strategy chosen for replication of performance, and these deviations are called “tracking error”.

Studied funds can invest not in all securities from the underlying index they track according to the strategy of “partial replication”, but also use a combination of money market instruments, options, futures, index swaps, cash and forward exchange contracts.

According to Richard Roll (1992), the major problem portfolio managers face is minimization of the volatility of portfolio returns compared to the benchmark or index portfolio. Roll argues that fund managers are faced with the double-sided problem. On one hand it is necessary to "beat" the market, i.e. to get a positive tracking error, on the other – to reduce the variance of the difference between the returns of managed portfolio and the benchmark.

Frino and Gallagher (2001) describe the main factors that could cause a tracking error. As for index funds and for ETFs, they include management fees, transaction costs, cash flows associated with rebalancing a portfolio. Indexes themselves do not bear such costs. An important factor is handling the dividends. There is a time delay between when the index accrue the dividends, and when the index funds actually receive them. Elton, Gruber, Comer and Li (2002) found that S&P 500 index, and corresponding index funds outperform SPDR (ETF). They attributed this to the fact that dividends received by ETFs on the underlying assets are not reinvested, but hold in the form of cash. Changes in index composition and liquidity of portfolio may also affect the accuracy of tracking.

Gallagher and Segara (2005) in the analysis of the Australian ETFs found that classical ETFs reward an investor with performance (before deduction of expenses) in proportion to index return. Moreover, ETF have lower tracking error value than the same index funds.

We use the methodology proposed by Frino and Gallagher (2001) and used by Rompotis (2002). In his work Rompotis came to the conclusion that these funds are comparable in tracking the index. The first method to estimate the tracking error is to evaluate the residual standard error of the residuals in the regression (1). The second method is to estimate the standard deviation of the returns differences between the fund and the index.

\[
SE_2 = \sqrt{\frac{\sum_{k=1}^{n} (d_k - \bar{d})^2}{n-1}},
\]

where \( d \) is the difference between the daily return of the fund and the underlying index \( n \) – is the number of observations.
Another method is the arithmetic mean of the absolute differences between the fund return and the return on the index.

\[ SE_1 = \frac{\sum_{k=1}^{n} |d_k|}{n} \]

Table 5 shows the results of our calculations. In the first method the average tracking error for ETF is 0.134, which is slightly less than for the index funds. A similar relationship was observed for the second method of calculating the tracking error – for ETFs it is less than for index funds. Rompotis used a t-test to determine the significance of his findings. To determine the significance of the result, we use the F-test for the first two methods, since it is intended to compare the variances of two samples, and the t-test for the third method. Critical values of the F-statistic for the sample size of 696 and 1130 observations and the significance level \( \alpha = 0.01 \) for two-sided tests are respectively 1.216 and 1.166. In the table we present the value of the F-statistic, calculated as the square of the larger of two standard deviations divided by the square of the smaller one. By comparing these values with the critical, we see that for both methods, the value of the F-statistic is greater than the critical value, and the result is significant for all the funds. The third method gave us a controversial result, but for the two-sided t-test critical values for the significance level \( \alpha = 0.01 \) and the available number of observations are 2,584 and 2,579. t-statistics shows that the results of the mean values of the absolute differences are statistically indistinguishable.

Concluding this part, we should note that on the basis of the first two methods applied to our sample, we can conclude that ETFs more accurately follow the index than index funds do.

Table 5. Estimation of tracking error for ETFs and index funds.

<table>
<thead>
<tr>
<th>ETF</th>
<th>IF</th>
<th>Standard deviation of ( e_k )</th>
<th>Standard deviation of return differences, ( SE_2 )</th>
<th>Mean of absolute return differences, ( SE_1 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>IWB</td>
<td>VRNIX</td>
<td>0.122</td>
<td>0.099</td>
<td>1.51</td>
</tr>
<tr>
<td>IWM</td>
<td>VRTIX</td>
<td>0.115</td>
<td>0.082</td>
<td>1.98</td>
</tr>
<tr>
<td>IWO</td>
<td>MCSWX</td>
<td>0.166</td>
<td>0.461</td>
<td>7.71</td>
</tr>
<tr>
<td>IWN</td>
<td>VRTVX</td>
<td>0.134</td>
<td>0.088</td>
<td>2.30</td>
</tr>
<tr>
<td>IWV</td>
<td>VRTTX</td>
<td>0.089</td>
<td>0.062</td>
<td>2.06</td>
</tr>
<tr>
<td>MDY</td>
<td>VIMSX</td>
<td>0.121</td>
<td>0.204</td>
<td>2.85</td>
</tr>
<tr>
<td>IVV</td>
<td>VPMCX</td>
<td>0.113</td>
<td>0.318</td>
<td>7.97</td>
</tr>
<tr>
<td>SPY</td>
<td>VFNX</td>
<td>0.116</td>
<td>0.066</td>
<td>3.06</td>
</tr>
<tr>
<td>VTI</td>
<td>VTSMX</td>
<td>0.104</td>
<td>0.065</td>
<td>2.61</td>
</tr>
<tr>
<td>VO</td>
<td>VIMAX</td>
<td>0.111</td>
<td>0.077</td>
<td>2.05</td>
</tr>
<tr>
<td>VB</td>
<td>NAESX</td>
<td>0.180</td>
<td>0.078</td>
<td>5.29</td>
</tr>
<tr>
<td>ONEQ</td>
<td>FNCMX</td>
<td>0.242</td>
<td>0.052</td>
<td>21.46</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td><strong>0.134</strong></td>
<td><strong>0.138</strong></td>
<td><strong>5.07</strong></td>
</tr>
</tbody>
</table>
8. RETURNS AND EXPENSES.
In this section, we analyze the costs of ETFs and index funds comparing them with each other. We also conduct a cross-sectional analysis to determine the relationship between return of the funds and the cost of their management. As in Blake, Elton and Gruber (1993) research work, we construct a dependence of the free term of the regression (1) from the cost ratio. As in Rompotis article (2002), we construct a regression of average daily returns of each fund on an expense ratio. Moreover, we build a regression of average annual return, calculated as annualized average geometric return for the period, on an expense ratio. Table 6 presents data on the annual expense ratio, expressed as a percentage of the average daily net asset value. ETFs expense ratio includes the costs of managing, trustee’s fees, 12b-1 fees, but do not include transaction costs and commisions. Vanguard Index Funds bear some other costs like the costs of account maintenance fee, low balance fee and IRA custodial fees.

Table 6. Expense ratio for ETFs are obtained from iShares, and Research Zecco websites, for index funds on websites of Vanguard, ETF database.

<table>
<thead>
<tr>
<th>Index</th>
<th>ETF</th>
<th>Expense ratio, %</th>
<th>IF</th>
<th>Expense ratio, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Russell 1000</td>
<td>IWB</td>
<td>0.15</td>
<td>VRNIX</td>
<td>0.08</td>
</tr>
<tr>
<td>Russell 2000</td>
<td>IWM</td>
<td>0.23</td>
<td>VRTIX</td>
<td>0.14</td>
</tr>
<tr>
<td>Russell 2000 Growth</td>
<td>IWO</td>
<td>0.25</td>
<td>MCSWX</td>
<td>2.52</td>
</tr>
<tr>
<td>Russell 2000 Value</td>
<td>IWN</td>
<td>0.38</td>
<td>VRTVX</td>
<td>0.20</td>
</tr>
<tr>
<td>Russell 3000</td>
<td>IWV</td>
<td>0.20</td>
<td>VRTTX</td>
<td>0.08</td>
</tr>
<tr>
<td>S&amp;P 400 MidCap</td>
<td>MDY</td>
<td>0.25</td>
<td>VIMSX</td>
<td>0.24</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>IVV</td>
<td>0.07</td>
<td>VPMCX</td>
<td>0.45</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>SPY</td>
<td>0.09</td>
<td>VFINX</td>
<td>0.17</td>
</tr>
<tr>
<td>MSCI Broad Market</td>
<td>VTI</td>
<td>0.05</td>
<td>VTSMX</td>
<td>0.17</td>
</tr>
<tr>
<td>MSCI MidCap 450</td>
<td>VO</td>
<td>0.10</td>
<td>VIMAX</td>
<td>0.10</td>
</tr>
<tr>
<td>MSCI Small Cap 1750</td>
<td>VB</td>
<td>0.10</td>
<td>NAESX</td>
<td>0.24</td>
</tr>
<tr>
<td>Nasdaq Composite</td>
<td>ONEQ</td>
<td>0.31</td>
<td>FNCMX</td>
<td>0.35</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td></td>
<td><strong>0.18</strong></td>
<td></td>
<td><strong>0.40</strong></td>
</tr>
</tbody>
</table>

The average value of expense for ETFs is 0.18%, substantially lower than that of index funds, and confirms a popular thesis that management costs for ETFs are minimal compared to competitors. (It still
will be lower if we take out of the sample expenses of MCSWX – an obvious outlier.) The same relationship was observed by Rompotis (2002) on a sample of 2001-2002. But it should be noted that costs taken into account in the expense ratio are not the only costs carried by investor. For ETFs transaction costs, brokerage commissions on sale are also typical. Significant contribution to the costs is made by bid-ask spread but in this article we do not concern these costs.

In Table 7, we present the results of our regressions on expenditures. Part A of the table represents the relationship between the coefficient of regression (1) and expense ratio. The slope coefficient in this regression is negative for the ETFs: -0.0012 that, as in the Blake, Elton and Gruber (1993) work, suggests that the increase in costs affect a slight decrease in return, but this result is statistically insignificant (p-value 0.633). The statistically insignificant results are obtained for ETFs regressions of the average daily returns and average anual returns on expense ratio – parts A, B and C, table 7. This result differs from Rompotis result (2002). In his study the slope of the regression for ETFs of the average daily return on expense ratio is positive and statistically significant. Such dependence can be explained with explanation proposed by Rompotis, and before him by Malkiel (1995) – that increased management costs lead to a more intensive, valuable financial analysis, and as a result to the best rates of return. For index funds in his article the results of regressions are insignificant. It also differs from our result. For parts A, B and C index funds show a negative dependence between returns and expense ratio, statistically significant for A with a significance level of 0.1%, and for C – with 13%. Part B for index funds slope of the regression is insignificant.

<table>
<thead>
<tr>
<th>A</th>
<th>( \alpha_k ) on expense ratio</th>
<th>Intercept</th>
<th>p-value</th>
<th>Slope</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETF</td>
<td>0.0015</td>
<td></td>
<td>0.018</td>
<td></td>
<td>0.633</td>
</tr>
<tr>
<td>IF</td>
<td>0.0037</td>
<td></td>
<td>0.002</td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B</th>
<th>Average day return on expense ratio</th>
<th>Intercept</th>
<th>p-value</th>
<th>Slope</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETF</td>
<td>0.0663</td>
<td></td>
<td>0.000</td>
<td></td>
<td>0.666</td>
</tr>
<tr>
<td>IF</td>
<td>0.0702</td>
<td></td>
<td>0.000</td>
<td></td>
<td>0.365</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C</th>
<th>Average annual return on expense ratio</th>
<th>Intercept</th>
<th>p-value</th>
<th>Slope</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETF</td>
<td>0.2344</td>
<td></td>
<td>0.000</td>
<td></td>
<td>0.738</td>
</tr>
<tr>
<td>IF</td>
<td>0.2490</td>
<td></td>
<td>0.000</td>
<td></td>
<td>0.129</td>
</tr>
</tbody>
</table>

9. CONCLUSION

In this article, we conducted a variety of empirical studies to compare ETFs and index funds. Using data on daily closing prices for ETFs and NAV for index funds, we estimated that on an average daily return basis ETFs slightly outperform index funds, but this result is statistically insignificant, and ETFs
outperform in return for the whole period of investigation. Additionally, index funds are more volatile, which means that they load investors with additional risk.

We regressed daily funds gross return on return of a benchmark and confirmed that the funds do not outperform or underperform the underlying index, as $\alpha_i$ in regression (1) are not statistically different from zero.

With the help of regression we found that ETFs more accurately follow underlying index than index funds. To evaluate and compare tracking error, we used three methods two of them have led to the same results, and the last one was insignificant. Our research showed a small but statistically significant advantage of ETFs over their competitors in the ability to replicate index performance. Portfolio manager, and, to a lesser extent, private investor who purchase one of the studied passive management instruments to obtain the return of any index, should take into account this specificity of two similar instruments, especially if the performance of portfolio management is based on a comparison to performance of a benchmark.

In the last part, we have built dependencies of the fund performance on expenses ratios. For ETFs we didn’t observe significant dependence. For index funds, we found a negative relationship between performance and expenses of funds.

Finally, it should be noted that the amount of funds researched in our study is limited, and with such a small sample the results should not be generalized to other groups of comparable ETFs and index funds.

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CORPORATE GOVERNANCE CODES AND FIRM FINANCIAL PERFORMANCE IN NIGERIA: A STUDY QUOTED BANKS

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Abstract

This research examines Corporate Governance Codes and Firm Financial Performance in Nigeria: A Survey of Some Selected Quoted Banks. Return on equity and return on asset were used to proxy for firm financial performance variables. The researcher identified some key corporate governance variables which help in carrying out the research and these are; Board Size, Board of Director’s Independence and Audit Committee Independence. Data for the study were drawn using the published financial statement of the selected banks quoted in the Nigeria Stock Exchange. The data gathered were analyzed using the multiple regressions via the special package for social sciences (SPSS) version 16. Based on the findings, the results revealed that there is positive and significant relationship between the board size and firm financial performance as it concerns return on equity. The findings also revealed that there is positive relationship between board of director independence and firm financial performance with respect to return on equity but this relationship is not significant, while on the other hand, the result reveals that audit committee independence is negatively related to firm financial performance as it concerns return on equity and this relationship is equally not significant. Further revelations from the study shows that firm financial performance as it concerns return on asset are positively related to board size and board of director independence but these relationships are not significant. Based on the results above, the study recommended among others, that: Firm should adopt or design better corporate governance codes. Firm should implement corporate governance code in order to maintain and manage employees’ commitment in achieving the organisation objectives. The issues on what determines the board size should be based on the kind and type of industry the organisation belongs and the size of the firm. In spite of the mixed results or findings that have emanated from different studies about corporate governance and firm financial performance, organisation should not be deterred from adhering to better corporate governance codes that will enhance organisation’s performance. Management should see good corporate governance practice as major option in achieving organization’s objectives in the current global environment where the interests of all stakeholders are considered and protected.

Key words: Board Size, Board of Director Independence, Audit Committee Independence as proxies for Corporate Governance; Return on Equity, Return on Asset as proxies for Firm Financial Performance.

1. INTRODUCTION

Corporate governance mechanisms as a means of increasing organisation’s financial performance have been on the forefront as a result of the different challenges facing the dynamic and global corporate
business environment. It is no longer news that the global corporate business environment is constantly changing, and as such, organisations need to management these changes with respect to their immediate corporate environment and that of their external environment in order to meet up with their corporate objectives. The financial institutions such as the banks have not been left out on this rapid dynamism faced by all organisations in the global corporate business environments. It is true that different economies and their financial systems are facing serious challenges since after the recent global meltdown. Advancement in technology, mergers and acquisitions, and couple with the ‘globalization concept’ of the world becoming a small village for all, has made every aspect of the market to be more open to various products and services and the has also pose a challenge to many organisations. The financial market place is equally becoming more open to meet up with the present terms evolving from these challenges of new products and services, as well as meeting up with the demands of satisfying all stakeholders.

In the face of this dynamic corporate business environment, one fact remains unchanged and certain, the need for countries and the world to have sound and organized resilient banking systems embodies with good and strong corporate governance practice. According to James Wolfensohn former World Bank Group President, Corporate governance is about promoting corporate fairness, transparency and accountability (Financial Times, 1999). Therefore, good corporate governance practice is encouraged in all organisations, in order to foster the confidence of all stakeholders.

The financial scandals and money laundry issues around the world today, and also the collapse of major corporate institutions in developed and developing countries have be seen as a result of poor corporate governance or the lack of adequate/good corporate governance practice. The challenges of today’s corporate business environment, have however, brought to the fore, once more, the need good corporate governance practice, which is a system by which corporations are governed and controlled with a view to increasing shareholder value and meeting the expectations of the other stakeholders. Well, for the financial industry, the retention of public confidence through the enthronement of good corporate governance remains of utmost importance given the role of the industry in the mobilization of funds from the public, the allocation these funds as credit to the needy sectors of the economy for development, used of these funds for payment and settlement system and the implementation of monetary policy etc. The importance of the banking sector to nation building has been seen by Centre Bank of Nigeria (CBN) as necessary, hence, the CBN in her quest to achieve this, has continually advocate for sound and resilient corporate governance that would be of benefit to all stakeholders concern.

In Nigeria, a survey, by the Securities and Exchange Commission (SEC) reported in a publication in April 2003, showed that corporate governance was at a rudimentary stage, as only about 40% of quoted companies, including banks, had recognized codes of corporate governance in place. Specifically for the financial sector, poor corporate governance was identified as one of the major factors in virtually all known instances of a financial institution’s distress in the country. There is no doubt that the on-going industry consolidation, mergers and acquisition, and the global financial environment activities are likely to pose additional corporate governance challenges arising from integration of processes, information technology and culture. Research had shown that two-thirds of mergers, world-wide, fail due to inability to integrate personnel and systems as well as due to irreconcilable differences in corporate culture and management, resulting in Board and Management squabbles. In addition, the emergence of mega banks in the post-consolidation era is bound to task the skills and competencies of Boards and Managements in improving shareholder values and balance same against other stakeholder interests in a competitive corporate environment. However, a well-defined code of corporate governance practices should help organizations overcome these difficulties.
Corporate governance plays a critical role in monitoring and controlling the operations of a firm; yet there are different corporate governance models based on the type of relationship the organisation has with its various stakeholders. In their study on comparative corporate governance, Rubach and Sebora (1998) examined how the role of corporate governance varied significantly in the USA, Japan and Germany. In the USA the Anglo-Saxon model is used, which is based on the assumption that corporate governance is used to protect the interests of the individual stockholders and investment institutions that have a financial interest in the firm. They state that the role of corporate governance is different in Japan and Germany. In these two countries, the focus is not on the individual investors and investment institutions but on developing long-term relationships with various stakeholders. In Japan, the keiretsu is a system of interconnected relationships between firms, suppliers, banks and other financial institutions. This interdependence ensures long-term support from the organisations that are interconnected. In addition, it broadens the focus of the responsibilities of the firm and the board of directors by monitoring how the firm's activities impact these various relationships. In Germany, a long-term perspective of relationships is also considered invaluable for the long-term survival of the firm. However, a major difference between the Japanese and the German model is that the dominant focus in Germany is on the relationship firms have with banks and other financial institutions. In Germany, the firm is considered a combination of interests of various stakeholders that work toward for the common good of Germany.

Furthermore, the term ‘Corporate Governance’ has been identified to mean different thing to different people. The international standard and guidelines on corporate governance have been established by many multilateral organisations including the Organisation for Economic Co-operation and Development (OECD) and Basle Committee in effort to ensure improved legal, institutional and regulatory framework for enhancing corporate governance in institutions such as banks and financial markets (Kibirango, 2002). The OECD (1999) defines corporate governance as the system by which business corporations are directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among different participants in the corporation such as, the board, managers, shareholders and other stakeholders, and spells out the rules and procedures for making decisions on corporate affairs. Gabrielle O’Donovan, business author of A Board Culture of Corporate Governance defines corporate governance as ‘an internal system encompassing policies, processes and people, which serves the needs of shareholders and other stakeholders, by directing and controlling management activities with good business savvy, objectivity and integrity’. Al-Faki (2006), states that, the relationship of the board and management should be characterized by transparency to shareholders, fairness to other stakeholders. The purpose of the paper is to investigate whether corporate governance practices lead to better financial performance. Most previous surveys and empirical analyses have explored the issue from the perspective of developed economies (Sueyoshi et al., 2010; Aaboen et al., 2006; Bianco and Casavola 1999). And also, many studies have focused on corporate governance mechanism such as board size, board composition, ownership structure, audit committee, etc in relation to financial performance. This study tries to fill in a gap by focusing on an emerging economy-Nigeria. Therefore, in addressing this study, the researcher focused on some of the corporate governance mechanisms via board size, board of director’s independence, and audit committee independence in relation to some of the key financial performance variables such as return on equity and return on asset. The study seeks to contribute on how corporate governance influences firm financial performance in Nigerian banks.

1.2 RESEARCH HYPOTHESES

This research work is carried out under the following assumption:
**Ho1**: There is no significant relationship between Board Size and return on equity.

**Ho2**: There is no significant relationship between Board of Director’s Independence and return on equity.

**Ho3**: There is no significant relationship between Audit Committee Independence and return on equity.

**Ho4**: There is no significant relationship between Board Size and return on asset.

**Ho5**: There is no significant relationship between Board of Director’s Independence and return on asset.

The rest of the paper is organized as follows: Section 2 discusses and contains brief review of related literature on previous work done on the subject matter. In section 3, the methods and procedures used in the empirical study is considered. The result and discussion for the study are made in section 4, while section 5 accommodates the conclusions of the study.

**2. REVIEW OF RELATED LITERATURES**

**2.1 INTRODUCTION**

The existence of divergent and sometimes conflicting objectives between managers and shareholders has given rise to the design of many codes or mechanisms that forms various concepts in the corporate world in order to ensure that the cost associated with such divergent interest is minimal. One of the proposed arrangements is corporate governance and it is not surprising that agency theory has been the dominant paradigm in the corporate governance literature. However, several other theories like stakeholder theory, stewardship theory, resource dependency theory etc. have emerged in an attempt to highlight the objective of the companies and how it should respond to its different obligations. In achieving the objective of the section as it concerns the review of related literatures, the survey work of different researcher on corporate governance and firm financial performance were reviewed to help support the study.

In recent times, the structure of laws and accountability issues regarding corporate governance is changing worldwide and directors are being held responsible everyday for the success and failures of the companies they govern. Corporate boards are responsible for major decisions like changing corporation bylaws, issuing of shares, declaring of dividends, etc. This explains to some extent, the reason why discussions of corporate governance usually focus on boards. The board of directors is the “head or apex” of the controlling system in an organization and they are there to monitor the activities of top management or CEOs to ensure that the interests of shareholders are protected (Jensen, 1993). The board of directors acts as the fulcrum between the shareholders, that is, the owners and management that is, controllers of the corporation (Monks and Minow, 2001) and also regarded as the one of the most important corporate governance mechanism (Blair, 1995). “The board of directors is seen as the eyes, thought, the mind or thinking and the mouth of the shareholders in the quest for the organisation to achieve its objectives”. Apart from the duty of loyalty to the company’s shareholders, the board is also responsible for exercising due diligence in decision making. Specifically, it selects, evaluates and if necessary, replaces the CEO based on performance.

Studies have shown that boards of directors are effective mechanism for effective monitoring of managers (Byrd and Hickman, 1992); Fama and Jensen, 1983). Again, Fama and Jensen (1983) extend
2.2 CORPORATE GOVERNANCE AND FIRM PERFORMANCE

It is widely acclaimed that good corporate governance enhances a firm’s performance (Chung et al., 2003; Hossain et al., 2000; Lee et al., 1992;). In spite of the generally accepted notion that effective corporate governance enhances firm performance, other studies have reported negative relationship between corporate governance and firm performance (Bathala and Rao, 1995; Hutchinson, 2002) or have not found any relationship (Park and Shin, 2003; Prevost et al. 2002; Singh and Davidson, 2003; Young, 2003). Several explanations have been given to account for these apparent inconsistencies. Some have argued that the problem lies in the use of either publicly available data or survey data as these sources are generally restricted in scope. It has also been pointed out that the nature of performance measures (i.e. restrictive use of accounting based measures such as return on assets (ROA), return on equity (ROE), return on capital employed (ROCE) or restrictive use of market based measures (such as market value of equities) could also contribute to this inconsistency (Gani and Jermias, 2006). Furthermore, it has been argued that the “theoretical and empirical literature in corporate governance considers the relationship between corporate performance and ownership or structure of boards of directors mostly using only two of these variables at a time” (Krivogorsky, 2006). For instance, Hermalin and Weisbach (1991) and McAvoy et al. (1983) studied the correlation between board composition and performance, whiles Himmelberg et al. (1999), and Demsetz and Villalonga (2001) studied the relationship between managerial ownership and firm performance.

Issues on corporate governance have been well documented in the literature. For example many empirical studies have documented a positive and significant relationship between corporate governance and firm performance (Chalhoub 2009; Sueyoshi et al. 2010; Brown and Caylor 2009). Other then these empirical works, surveys have been conducted by various organisations to evaluate the relationship between the two issues corporate governance and financial performance. A study performed by Credit Lyonnais Securities Asia (CLSA) in 2002 indicates the existence of the positive link between good governance and indicators of financial performance on almost 500 developing economy companies. In a prior study conducted in 2001, CLSA generated an index for 495 firms from 25 emerging markets to find out their corporate governance rankings. This report demonstrated that firms that rank high in this index display better operating and market performance. Another striking and more recent research was performed by the Association of British Insurers (ABI) in 2008.

Furthermore, researches have been conducted to examine the effect of corporate governance mechanism (board composition, board size, audit committee independence and CEO ownership, CEO compensation, tenure etc.) on company performance. Coles et.al (2001) states that much of the academic work in the corporate governance field has focused on how to design corporate governance mechanisms that will motivate managers to make choices for the firm that will improve performance. However these researches will indicate otherwise. Coles classified governance mechanisms into two broad categories namely organizational monitoring mechanisms (including leadership structure and board structure) and CEO incentive alignment mechanisms (including CEO compensation and ownership structure). A number of studies have provided insights into the relationship between leadership structure and performance. The leadership structure of the company is the relationship between the CEO and the Chairman of the BOD. CEO duality is a situation where the CEO is also the Chairman of the BOD. CEO duality is said to increase agency problem because the chairman is suppose to monitor the performance of the CEO.
Abdullah (2004) analyzed all companies listed on the Main Board of Kuala Lumpur Stock Exchange (now known as Bursa Malaysia) between 1994 and 1996 to investigate the effect of board composition and CEO on company performance (ROA, ROE, EPS and profit margin). In contrast to Rechner and Dalton (1991), he found that board independence and CEO duality did not have any relation to firm performance. He also found that board independence is negatively associated with CEO duality. Thus, firms with CEO duality have lower percentage of outside director. However, he found that Malaysian companies had been dominated by outside director and majority firms practiced non-dual leadership structure. Other studies in corporate governance have focused on the composition of BOD and its effect on performance. Baysinger and Butler (1985) found weak evidence that firms with more outside directors in 1970 had higher industry adjusted ROE in 1980. They concluded that companies dominated by non-executive directors had a better performance than companies dominated by executive directors. Klein (1998) on the other hand divided boards into several committees and found that higher percentage of inside directors in finance and investment committees leads to a better accounting and stock-market performance. Thus her findings indicate that there is a positive relationship between inside director and firm performance.

Dehaene et.al (2001) analyzed 122 Belgian companies to verify whether a relationship exists between board composition (number of directors, percentage of outside director, CEO duality) and company performance (ROA and ROE). Their findings indicate a significant positive relationship between percentage of outside director and ROE i.e. the more external director a company has, the better is its performance. They also found a significant positive relationship between CEO duality and ROA i.e if the CEO is also the Chairman of BOD, the company would show higher ROA.

Haniffa and Hudaib (2006) investigated the relationship between six corporate governance variables (board size, board composition, CEO duality, multiple directorship, ownership concentration and managerial shareholding) and two performance measures (Tobin Q and ROA) in Malaysia. They studied 347 firms listed on the KLSE between 1996 and 2000. They found that board size and ownership concentration (measured by top 5 substantial shareholding) is significantly associated with both market and accounting performance measures. Board size had a negative correlation with the market performance providing evidence that the market views big board’s as ineffective but had a positive correlation with accounting performance. This means that big board’s help provide diversity and bring wealth and expertise into companies. Concentrated shareholding also had a negative correlation with the market performance suggesting that market performance is better for firms with diffused ownership. It had a positive correlation with accounting performance. This means that Malaysian firms produce better accounting results with concentrated ownership. In addition, they found a negative significant relationship between multiple directorship and market performance suggesting better market performance when directors do not hold additional directorship. They also found that CEO duality has a significant negative relationship with accounting performance i.e firms with a combined structure had a weaker accounting performance. Finally they found a significant negative relationship between managerial ownership and accounting performance and conclude that the insider model of corporate governance is unsuitable in the Malaysian business environment. This problem is also associated with high cross holding of ownership in Malaysian firms via pyramiding.

2.3 CORPORATE GOVERNANCE VARIABLES/MECHANISMS

There are many factors or variables that may constitute yardsticks by which corporate governance can be measured in an organization. Some of these mechanisms are briefly discussed below.
2.3.1 Board Size

It is argued that small board sizes should be encouraged to promote effective communication and quick decision-making. Well, limiting board size to a particular level is generally believed to improve the performance of a firm because the benefits by larger boards of increased monitoring are outweighed by the poorer communication and decision making of larger groups. Empirical studies on board size seem to provide the same conclusion: a fairly clear negative relationship appears to exist between board size and firm value. Too big a board is likely to be less effective in substantive discussion of major issues among directors in their supervision of management. However, that might not be the case if advanced and proper technology is employed.

Lipton and Lorsch (1992) argue that large boards are less effective and are easier for the CEO to control. When a board gets too big, it becomes difficult to coordinate and for it to process and tackle strategic problems of the organisation. Yermack (1996), using data from Finland and Liang and Li (1999), with Chinese data, also find negative correlation between board size and profitability. Eisenberg, Sundgren and Wells (1998) and Mak and Kusnadi (2005) also report that small size boards are positively related to high firm performance. In a Nigerian study, Sanda et al (2003) report that firm performance is positively correlated with small, as opposed to large boards.

According to Jensen (1993) “… As groups increase in size, they become less effective because the coordination and the process problem overwhelm the advantage from having more people to draw on.” Yermack in his analysis of 452 large US corporations for the period 1984 to 1994 finds that the negative relation between board size and corporation value attenuates as the board become large. Mintzberg (1983) as cited by Dalton et al (1999) suggests that board members’ assessments of top management are more easily manipulated when boards are large and diverse and it might be reasonably expected, that large boards would tend to be more diverse, more contentious, and more fragmented than small boards.

Board size may be a measure of an organization’s ability to form environmental links to secure critical resources (Goodstein et al 1994 as quoted by Dalton et al). Proven (1980) as cited by Dalton et al (1999) demonstrate that board size was associated with a firm’s ability to extract critical resources such as amount of budget, external funding and leverage from an environment. Resource dependence theory has been the primary foundation for the perspective that larger boards will be associated with higher levels of firm performance. (Alexender, Fennell & Halpern (1993) as cited by Dalton et al (1999). The Cadbury committee (Cadbury 1992) recommends that the ideal size of the board should be between eight and ten members.

2.3.2 Board Composition

The board of directors is expected to be made up of more non-executive directors (NEDs) for effective control. It is argued that this reduces conflict of interest and ensures a board’s independence in monitoring and passing fair and unbiased judgement on management. The involvement of non-executive directors (NEDs) is viewed as critical to enhance the effectiveness of the board’s activities with the combination of executive directors which is believed to have full knowledge of the firm’s operations. Thus, it is believed that the appointment of NEDs will enhance decision-making and ensure the sustainability of the business. Enhanced director independence, according to Young (2003) is intuitively appealing because a director with ties to a firm or its CEO would find it more difficult to turn down an excessive pay packet, challenge the rationale behind a proposed merger or bring to bear the skepticism necessary for effective monitoring.

The proponents of agency theory say that corporate governance should lead to higher stock prices or better long-term performance, because managers are better supervised and agency costs are decreased.
However, Gompers and Metrick (2003) submit that the evidence of a positive association between corporate governance and firm performance may have little to do with the agency explanation. Empirical studies of the effect of board membership and structure on firm value or performance generally show results either mixed or opposite to what would be expected from the agency cost argument. Some studies find better performances for firms with boards of directors dominated by outsiders (Resenstein and Wyatt 1990, and John and Senbet 1998), while Weir and Laing (2001) and Pinteris (2002) find no such relationship in terms of accounting profit or firm value. Also, Forsberg (1989) find no relationship between the proportion of outside directors and various performance measures.

In the same vein, Hermalin and Weisbach (1991) and Bhagat and Black (2002) find no correlation between the degree of board independence and four measures of firm performance, controlling for a variety of other governance variables, including ownership characteristics, firm and board size and industry. They find that poorly performing firms were more likely to increase the independence of their board. Baysinger and Butler (1985) and Klein (1998) find that firm performance is insignificantly related to a higher proportion of outsiders on the board. Thus, the relation between the proportion of outside directors and firm performance is mixed. Studies using financial statement data and Tobin’s Q find no link between board independence and firm performance, while those that used stock returns data find a positive relationship. In the case of a sample of 228 small, private firms in China Liang and Li (1999) report that the presence of outside directors is positively associated with higher returns on investment.

2.3.3 Audit Committee

Section 359(4) of the Company and Allied Matter Act (CAMA 1990) of Nigeria specifies that there should be maximum members in the audit committee with equal number of shareholders and directors, and at least one of them should be financial expert. The independence of the audit committee has also been strongly advocated. In his study, Klein (2002) reports a negative correlation between earnings management and audit committee independence. Anderson, Mansi and Reeb (2004) find that entirely independent audit committees have lower debt financing costs.

2.4 ECONOMIC IMPACT OF GOOD CORPORATE GOVERNANCE

Good governance has great and positive impact on the economy of a country. Good corporate governance has to do with proper management of the corporate resources by manager through effective and efficient board monitoring that would lead to better allocation of resources in order to achieve organisation performance for the benefit of all stakeholders. The impact on this in the economy is that Investors and lenders will be more willing to put their money in firms with good governance, and this will lead lower costs of capital, which might be another source of better firm performance. Other stakeholders, including employees and suppliers, will also want to be associated with and enter into business relationships with such firms, as the relationships are likely to be more prosperous, fairer, and long lasting than those with firms with less effective governance.

Implications for good corporate governance the economy as a whole are obvious. Hence, Economic growth will be more sustainable, because the economy is less vulnerable to a systemic risk. With better protection of investors at the firm level, the capital market will also be boosted and become more developed, which is essential for sustained economic growth. At the same time, good corporate governance is critical for building a just and corruption-free society. Poor corporate governance in businesses is fertile soil for corruption and corruptive relationship between firm and political environment. Less expropriation of minority shareholders and fewer corruptive links between big businesses and political power may result in a more favorable business environment for smaller enterprises and more equitable income distribution. According to a survey by McKinsey & Company
(2002), in 2002, 78% of professional investors in Asia said that they were willing to pay a premium for a well-governed company. The average premium these investors were willing to pay generally ranged from 20% to 25%. Many scholars have attempted to investigate the relationship between good governance and firm performance in a more rigorous way like board size, board composition, shareholders activism, etc.

2.5 RETURN ON EQUITY (ROE)

According to Pandy I.M 2004, common or ordinary shareholders are entitled to the residual profits. The rate of dividend is not fixed; the earnings may be distributed to shareholders or retained in the business. Nevertheless, the net profits after taxes represent their return. A return on shareholders’ equity is calculated to see the profitability of owners’ investment. The shareholders’ equity or net worth will include paid-up share capital, share premium and reserves and surplus less accumulated losses. Net worth can also be found by subtracting total liabilities from total assets.

The return on shareholder’s equity is net profit after taxes divided by shareholders’ equity.

\[
\text{ROE} = \frac{\text{profit after taxes}}{\text{Net worth}} = \frac{\text{PAT}}{\text{NW}}
\]

ROE indicates how well the firm has used the resources of owners. In fact, this ratio is one of the most important relationships in financial analysis. The earning of a satisfactory return is the most desirable objective of a business. The ratio of net profit to owners’ equity reflects the extent to which this objective has been accomplished. This ratio is, thus, of great interest to the present as well as the prospective or potential shareholders and also of great concern to management, which has the responsibility of maximizing the owners’ welfare or wealth.

According to Kennon (2011), Return on Equity is one of the most important profitability metrics. Return on equity reveals how much profit a company earned in comparison to the total amount of shareholder equity fund on the balance sheet. Shareholder equity is equal to total assets minus total liabilities. It's what the shareholders "own". Shareholder equity is a creation of accounting that represents the assets created by the retained earnings of the business and the paid-up capital of the owner.

2.6 RETURN ON ASSET (ROA)

According to Pandey (2004) the term investment may refer to total assets or net assets. The fund employed in net assets is known as capital employed. Net assets equal net fixed assets plus current assets minus current liabilities excluding back loans. Return on Asset is calculated using earnings before interest and tax minus tax divided by average of total assets.

\[
\text{ROA} = \frac{\text{EBIT} - \text{Tax}}{\text{Average Total Assets}}
\]

3. METHODOLOGY

3.1 RESEARCH DESIGN/SAMPLE

This research design uses the survey data method combined with cross-sectional survey and time series data. The method of analysis used is the multiple regressions and the method of estimation is Ordinary Least Squares (OLS). The research is design in such a way that meaningful results would be achieved. To conduct this research, the samples for this study were drawn from quoted banks listed in the Nigeria Stock Exchange (NSE).
Data for the study were collected mainly from secondary source. Financial data and corporate
governance data was extracted from the audited published corporate financial statements and annual
reports of the studied banks quoted in the Nigerian Stock Exchange and the relevant corporate website
of the banks were visited. The data for the study covers a period of 5 years from 2006 to 2010.

3.2 OPERATIONAL MEASURES OF VARIABLES

It is very important in statistics to know how a set of observation is measured because this will influence
the method of analysis. The main variable for the study are the corporate governance code/mechanism-
which is the independent/predictive/explanatory variables and this were measured via B.Size, BODI,
AuditCom, and the firm financial performance- which is the dependent/criterion variables were
measured via ROE and ROA.

3.3 MODEL SPECIFICATION AND DATA ANALYSIS

The economic model used in the study (which was in line with what is mostly found in the literature) is
given as:

\[ Y = \beta_0 + \beta_1 x_{it} + U_{it} \]

Where, Y is the dependent variable. \( \beta_0 \) is constant, \( \beta \) is the coefficient of the explanatory variable
(corporate governance mechanisms), \( x_{it} \) is the explanatory variable and \( U_{it} \) is the error term (assumed
to have zero mean and independent across time period). It is important to state that this study employed
two financial ratios which are return on equity and return on asset (i.e. ROE and ROA) to measure the
firm financial performance.

The models are specified as follows:

**Model I**

\[ \text{ROE} = f(\text{BSize, BODI, Auditcom}) \]

The econometric transformation of the model:

\[ \text{ROE} = \beta_o + \beta_1 \text{BSize} + \beta_2 \text{BODI} + \beta_3 \text{AuditCom} + U_1 \]

**Model II**

\[ \text{ROA} = f(\text{BSize, BODI}) \]

The econometric transformation of the model:

\[ \text{ROA} = \beta_o + \beta_1 \text{BSize} + \beta_2 \text{BODI} + U_2 \]

**Where:**

- \( \text{ROE} \) = Return on Equity as proxy for Financial Performance
- \( \text{ROA} \) = Return on Asset as proxy for Financial Performance
- \( \beta_0 \) = intercept coefficient
- \( \beta_i \) = coefficient for each of the independent variable
- \( \text{BSize} \) = Board Size
- \( \text{BODI} \) = Board of Director’s Independence (Proportion of outside directors sitting on the board)
Auditcom = Audit Committee (ie. Proportion of independent directors/shareholders in audit committee in a particular year)

$U_1$ & $U_2$ = Error term.

**Decision Rule:**
At 5%(0.05) level of significance, (for the purpose of the study), if the calculated t-value is greater than tabulated t-value, we reject the null hypothesis, if otherwise, we accept the null hypothesis.

**4.0 DATA PRESENTATION AND ANALYSIS**

**4.1 INTRODUCTION**
This section of the study lays emphasis on presentation, analysis and interpretation of the data obtained from the published annual financial statement of the studied banks in order to validate or reject the null hypotheses earlier formulated in section one. The relevant hypotheses were tested and interpreted to fulfill the purpose of which this study was carried out. The data presentation started by showing the figures, averages and percentages of five years summary of each of the twelve (12) studied banks as its concern their board size, board of directors independence, and audit committee independence. This also applies to return on equity, and return on asset of the various banks as shown below:

Table: 4.1.1. **Showing Figures, Averages and Percentages of Five Years Summary of Corporate Governance Mechanisms and Financial Performance Measures Obtained From the Selected Banks Listed on the Nigerian Stock Exchange.**

**Sources:** Computation from Published Annual Reports and Financial Statements

<table>
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<tr>
<th>S/N</th>
<th>BOARD SIZE (B.Size)</th>
<th>BOARD DIRECTOR’S INDEPENDENCE (BODI)</th>
<th>AUDIT COMMITTEE INDEPENDENCE (AuditCom)</th>
<th>RETURN ON EQUITY (ROE)</th>
<th>RETURN ON ASSET (ROA)</th>
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<td>0.50</td>
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<td>2</td>
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<td>7</td>
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<td>12</td>
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<td>0.66</td>
<td>0.50</td>
<td>3.14</td>
<td>0.12</td>
</tr>
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</table>
4.2 TESTING OF THE HYPOTHESES

In this section, the five hypotheses stated in chapter one were tested using the multiple regressions as the statistical tool at 95% confidence level via the Statistical Package for Social Sciences (SPSS) Version 16 to determine the extent to which the various independent variables contributed or influenced the dependent variable. This help to give scientific affirmation of the tentative statement (hypotheses) earlier made in section one. Consequently, in order to obtain reasonable result for this study, the hypotheses stated in section one, were collapsed to suit the model specified in section three. Hypotheses 1, 2 & 3 were collapsed and analyze base on model specification one, while hypotheses 4 & 5 were collapsed and analyzed using model specification two.

From appendix I, $R^2$ is 0.441. This implies that the explanatory/independent variables of B.Size, BODI and AuditCom explain changes in the return on equity to the extent of 44 percent, while the remaining 56 percent is accounted for by the error terms which are accommodated in the model specified. The regression result indicates that B.Size is positively and significantly related to return on equity. The result also revealed that BODI is positively related to return on equity (ROE), while AuditCom is negatively related to return on equity but these relationships are not significant.

The t-test was used to test the statistical significance of the explanatory variables. Therefore, based on the t-test, Board Size (B.Size) with calculated t-value of 2.138 which is greater than the tabulated t-value of 1.860 (i.e. $2.138 > 1.860$), is statistically significant at 5 percent or 0.05 level. On the other hand, Board of Directors’ Independence (BODI) with a calculated t-value of 1.705 which less than the tabulated t-value of 1.860 (i.e.$1.705 < 1.860$) and Audit Committee (AuditCom) with calculated t-value of 0.543 which is also less than the tabulated t-value of 1.860 (i.e. $0.543 < 1.860$) are not statistically significant at 5 percent or 0.05 level. Consequently, based on the decision rule in section three which states that at 5%($0.05$) level of significance, if the calculated t-value is greater than tabulated t-value, we should reject the null hypothesis and if otherwise accept it. Therefore, base on this rule, hypotheses one (Ho1) which states that there is no significant relationship between board size and return on equity was rejected having confirmed the regression calculated t-value of 2.138 which is greater than the tabulated t-value of 1.860. This implies that there is positive and significant relationship between Board Size and return on equity. The result of this study is in line with Dehaene et al. (2001) which find that board size is positively related to company performance. Also supporting the result is the study of Brown and Caylor (2004) which show that firms with board sizes between six and 15 have higher returns on equity

Furthermore, hypotheses two & three were accepted since their calculated t-value of 1.705 and 0.543 is less than the tabulated t-value of 1.860 respectively. That is, from the result of the analysis, Board of Directors Independence is positively related to return on equity but not significant, while Audit Committee Independence is negatively related to return on equity and equally not significant. The implication of this is that the changes in return on equity are not explained by Board of Director’s Independence and Audit Committee Independence. In line with the finding of this study, most empirical evidence suggests a positive association between board independence and firm financial performance but not significant (Rosenstein and Wyatt 1990; Coles et al. 2001; Chung et al. 2003). In his study by Klein (2002) reported negative correlation between earnings management and audit committee independence.

From appendix II, the $R^2$ is 0.004. This shows that the explanatory variables (B.Size and BODI) explain changes in the return on asset as low as 0.4 percent, while the remaining 99.6 percent is accounted for by stochastic/error terms which are accommodated in the model specified. This implies that the independent variables of B.Size and BODI explain a very low or almost no variations in the dependent variable - return on asset.
The t-test is used to test the statistical significance of the explanatory variables. Therefore, base on the t-test, Board Size (B.Size) is not statistically significant at 5 percent or 0.05 level, having seen that the calculated t-value of 0.159 which is less than the tabulated t-value of 1.833 (i.e. 0.159<1.833). Board of Directors’ Independence (BODI) is also not statistically significant considering the calculated t-value of 0.175 which is less than the tabulated t-value of 1.833 (i.e. 0.175<1.833).

The implication of the SPSS analysis from appendix II, mean that positive relationship between B-Size; BODI and return on asset cannot be used to explain changes in return on asset because they are not statistically significant according to the result of the analysis. Consequently, based on the decision rule in section three which states that at 5%(0.05) level of significance, if the calculated t-value is greater than tabulated t-value, the null hypothesis should be rejected, otherwise accept it. Therefore, based on this rule, hypotheses four and five were accepted in their null form since their calculated t-value of 0.159 and 0.175 were less than the tabulated t-value of 1.833 respectively. In their study, Sanda et al. (2005), report no significant relationship between the proportion of outside directors on the board and firm performance. And this reports support the result of our study which state that there is no significant relationship between Board of Director’s Independence and firm performance.

5.0 CONCLUSIONS

5.1 Introduction

This section is concerned with discussing the results and findings of this study, it tries to find out how corporate governance mechanism/codes influences firm financial performance. It utilized the banking sector.

Owing to the study which examined corporate governance codes and firm financial performance in Nigeria, using some selected quoted banks, the researcher had cause to come to certain conclusions. That they have been mixed or different results about corporate governance and firm financial performance and this could be as a result of the variables involved the various studies. This study indicated that board size has positive and significant relationship with firm financial performance with respect to return on equity. Therefore, since the board size have influence on return on equity; the board size of every organisation should be carefully selected to support firm’s financial performance, especially when there is argument in the extant literature on what determines the board size of a firm?

The study also indicates that there is no significant relationship between board of director’s independence and return on equity. This implies that firm financial performance with respect to return on equity might not be dependent on the board of director’s independence. That is, firm performance cannot be influenced by the involvement of of independent directors. However, the importance of the independence directors to a company’s board cannot be ruled out.

This study also revealed negative and insignificant relationship between audit committee independence and firm financial performance with respect to return on equity. It is however important to stress that this negative relationship is not significant. And since this relationship has no effect on the changes in the return on equity, the researcher concludes that audit committee should be properly constituted to carry out their lawful duties as demanded by statutes and laws, and this will help in checkmating the excesses of management and all stakeholders concerned. Consequently, the study indicates that there is positive relationship between board size and return on asset, but the relationship is not significant. The finding of this study also indicates positive relationship between board of director’s independence and firm performance with respect to return on asset, but also, the relationship is not significant.
5.2 RECOMMENDATIONS

Based on the above findings and conclusions, the following recommendations were made:

i. Firm should adopt or design better corporate governance codes that are globally acceptable to all stakeholders.

ii. Firm should implement corporate governance code in order to maintain management and employees commitment in achieving the organisational objectives.

iii. The issues on what determines the board size should be based on the kind and type of industry the organisation belongs and the size of the firm.

iv. In spite of the mixed results that have emanated from the different studies about corporate governance and firm financial performance, organisation should not be deterred from adhering to good and better governance code that will enhance organisation’s performance.

v. Management should see corporate governance practice as major option in achieving organization’s objectives in this dynamic and global business environment where the interests of all stakeholders are protected.

---

**APPENDIX I**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>Independent Variable B.SIZE</td>
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</tr>
<tr>
<td>Independent Variable BODI</td>
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<tr>
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a. Dependent Variable: Dependent Variable ROE

**Model Summary**

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<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
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a. Predictors: (Constant), Independent Variable AUDITCOM, Independent Variable BODI, Independent Variable B.SIZE

b. Dependent Variable: Dependent Variable ROE
APPENDIX II

Model Summary*

<table>
<thead>
<tr>
<th>Model</th>
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<th>R Square</th>
<th>Adjusted R Square</th>
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<th>Change Statistics</th>
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</thead>
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<td></td>
<td></td>
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</tbody>
</table>

a. Predictors: (Constant), Independent Variable AUDITCOM, Independent Variable BODI, Independent Variable B.SIZE

b. Dependent Variable: Dependent Variable ROE

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>-------</td>
<td>-----------</td>
<td>------</td>
</tr>
<tr>
<td>I (Constant)</td>
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<td>Independent Variable B.SIZE</td>
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<td>.004</td>
</tr>
<tr>
<td>Independent Variable BODI</td>
<td>.022</td>
<td>.124</td>
</tr>
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</table>

a. Dependent Variable: Dependent Variable ROA

REFERENCES


LIQUIDITY DEVELOPMENTS IN ROMANIAN BANKING SYSTEM

Horațiu Lovin

The Bucharest University of Economic Studies, Mihail Moxa 5 – 7, 010961 Bucharest, Romania

Abstract

Banks adjust their balance sheets according to liquidity conditions in the financial markets, as well as their aversion for liquidity risk. High liquid assets and stable funding protect banks from liquidity shocks, whereas investments in riskier assets with short term funding may increase banks profitability in short run. The global financial crisis triggered by Lehman Brothers failure in September 2008 put pressure on Romanian banking system. The external funding slumped, whilst the liquidity of financial assets contracted. This study aims to observe the structural changes in banks balance sheet in Romania after 2008 from the liquidity risk point of view. The empirical evidence suggests a higher liquidity risk aversion and a lower reliance on external funding after 2008 for Romanian banking system. Moreover, banks strengthen their liquidity position starting 2008 and increased the resilience to liquidity shocks.

Key words: liquidity, banking system, risk management, external funding, risk aversion

1. INTRODUCTION

Banks make investments in different types of assets (high liquid assets, loans, other assets) funded by resources as capital, deposits and debt (fixed income) instruments. In addition, banks carry out transactions with financial derivative instruments or receive and provide guarantees from other financial institutions that are recorded as off-balance sheet operations. The Romanian banking system is oriented to lending and deposits taking activities, while the off balance sheet transactions are low developed. Therefore, we analyze in this study the developments that occurred in the bank balance sheets before but mostly after the global financial crisis inception in September 2008.

The importance of liquidity risk significantly increased after 2008 as the global financial crisis emphasized the disruptive potential of investment strategies that use short term funding and are highly sensitive to small changes in financial markets. Banks in Romania were not engaged in such risky strategies from liquidity risk point of view. However, the strong reliance in external funding and low holdings of liquid assets determined stress in banking system and money markets since 2008.

This study offer a perspective on structural changes that occurred in the Romanian banking system during two liquidity regimes: easy access to liquidity (2007 – end of 2008) and scarce and expensive resources since end of 2008. The research focus on changes in assets and liabilities connected to banks capability to absorb liquidity shocks.

2. LITERATURE REVIEW

There is a broad literature on liquidity risk in banking sector and the research activity intensified after 2008. (Cornett, MM et al, 2011) analyzed the banking sector in United States and observed that banks that relied heavily on term deposits continued to lend to the real sector after 2008, whilst the banks with fragile liquidity positions halt credit activity and oriented to investments in high liquid assets.
Liquidity has systemic implications, following (Adrian and Brunnermeier, 2011). The authors determined the systemic importance of financial institutions by building a complex indicator that includes among others the institutions liquidity positions.

(Gatev et al, 2006) analyzed banks liquidity management during financial turmoil and concluded that banks which funded themselves in a large share with demand deposits do not experience liquidity risk in crisis period even if the debtors call the lending commitments. Investors transfer funds to those banks because their perception is that the banks are protected through deposit guarantee schemes and resolution mechanisms.

(Kashyap et al, 2002) consider that banks are liquidity providers for debtors that ask for loans and depositors that can recall at any moment their deposits. This structure of banking activities allows banks to manage liquidity risk efficiently due to the synergies between the two activities. Two financial institutions, one that take deposits and one that lend money have more difficulties in managing liquidity risk compare to a bank that provide both services.

(King, 2010) estimated the impact of new Basel III standards regarding banks liquidity management on lending costs (bank margin). The author determined that a 1 percentage point increase in capital requirements will cause an increase in lending costs with 0.15%. However, if the banks improve the liquidity position by enlarging the holdings of government securities, than the increase in lending costs will be only 0.12% or even less.

Other studies on liquidity management and the implications for bank activities had been elaborated by (Agenor and El Aynaoui, 2010), (Chang and Lin, 2005), (Drehmann and Nikolaou, 2010) and (Gatev and Strahan, 2006).

3. DATA

The database build for this study comprise balance sheet information for Romanian banking system (credit portfolio, government securities portfolio, term deposits, demand deposits, cash holdings and external funding) and financial markets (key interest rates on money market and exchange rate). Data source is National Bank of Romania website, while the data frequency is monthly. The indicators collected cover the period January 2007 – March 2013.

The impact of global financial crisis on Romanian financial system can be observed in Figure 1 and Figure 2. It was a spike on short term interest rates, whilst the exchange rate entered a depreciation path. Even if the interest rates on money market returned rapidly to a much lower level, the implications for banking system liquidity were severe and last longer. The central bank interventions improved liquidity conditions in the banking sector, but banks become reluctant to lend money each other and entered transactions with the central bank. The banks with excessive liquidity made deposits at central bank, whereas banks with liquidity deficits carried out repo transactions with the central bank to borrow money.
The exchange rate depreciation had negative implications for Romanian banking system because a large share of banks debt was denominated in euro. As parent institutions recall funds from their subsidiaries or braches in Romania, the local banks entered foreign exchange market to buy foreign currency against local currency. Hence, the local currency depreciation increased banks cost to acquire liquidity in euro in order to reimburse the loans to the parent institutions.
Bank liquid assets decreased before 2008 as banks expanded with high velocity the lending activity, but reversed the trend after the global crisis inception due to the need to enhance the liquidity position, as well as lower credit demand and increasing credit risk of debtors (Figure 3). The relative size of credit portfolio followed an opposite pattern, emphasizing the credit crunch between 2009 and 2010 (Figure 4).

Most of the banks active in Romania are subsidiaries or branches of international financial group. They count for over 80% of total domestic banking system assets. Consequently, banks had easy access to external funding prior to the financial crisis and used those resources to foster the domestic lending activity. External funding was the main driver of credit boom until 2008 in Romania. The evolution of external resources is similar with the credit portfolio one. After 2008, the parent banks faced liquidity shortage and almost stopped completely to finance their subsidiaries or branches abroad. Romanian banks responded by increasing the base of domestic resources to fund their assets (Figure 5).

The banks in Romania use deposits to fund most of their activities. The largest share is represented by term deposits, whilst the demand deposits count for about one quarter of total deposits (Figure 6). Term deposits are more stable compare to the demand deposits because their maturity is longer. The depositors can withdraw their term deposits at any moment, but they face penalties if recall the deposits before maturity.

4. METHODOLOGY AND RESULTS

We follow the methodology developed by Kashyap et al (2002) to measure liquidity risk in Romanian banking system and the developments before and after the global financial crisis inception in 2008. The
authors proposed a set of indicators consisting of the main assets and liabilities. The indicators are LIQRAT, SECRAT, DEPRAT and CREDRAT. In addition, based on the particularities of the Romanian banking system, we built a new indicator named NERRAT. The formulas for all 5 indicators are presented below:

<table>
<thead>
<tr>
<th>LIQRAT</th>
<th>SECRAT</th>
<th>DEPRAT</th>
<th>CREDRAT</th>
<th>EXTRAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Cash and reserves at central bank and government securities)/total assets</td>
<td>Government securities/total assets</td>
<td>Demand deposits/total deposits taken</td>
<td>Total loans/total assets</td>
<td>External funding/total liabilities</td>
</tr>
</tbody>
</table>

Table 1. The bank liquidity indicators

LIQRAT measures the banks’ ability to face a liquidity shock using their high liquid assets. When depositors withdraw funds in short period of time, banks may avoid default only by liquidating the liquid assets because there is not enough time to sell low liquid assets or take other resources. The high liquid assets holds by banks are government securities, cash and reserves at central bank. In Romania, the minimum reserve requirement ratio is high, compare to peer European countries, therefore the reserves are large and provide banks with a robust cushion against liquidity outflows. Nevertheless, the minimum reserve requirements are a monetary policy instruments and banks may rely on them for liquidity purposes only for short periods of time, bellow one month.

SECRAT is similar with LIQRAT, at least to some extent, and quantify the banks’ capacity to access collateralized financing, mainly from the central bank. During financial crisis the interest rates on the money market spike, while financial assets value slumps. Consequently, banks may experience difficulties in accessing interbank funding even if they pledge government securities. In that case, central bank can become the only liquidity provider to the banking system up to the amount of government securities holdings of the banks.

DEPRAT measures the stability of deposits taken and is based on the principle that term deposits are much stable than demand deposits. This rule is emphasized also by the Basel II accord that encourage banks to rely more on term deposits rather than demand deposits to increase their resilience to liquidity shocks.

CREDRAT is the complementary indicator to LIQRAT and determines the share of credit portfolio in total bank assets. Loans are low liquid and a bank with a large share of credit portfolio in total assets is more vulnerable to liquidity shocks because usually cannot access rapidly funds from financial markets.

EXTRAT underlines the banks reliance on external resources to found their activity. In Romania more than 80% of bank assets are owned by foreign banks. The advantages are easy access to external funding and robust expertise, while the main disadvantage consists of high vulnerability to external liquidity shocks. The global financial crisis that emerged in 2008 had negative implications for Romanian banking system because the parent institutions of the local banks suffered losses and decreased the resources available for the cross-border subsidiaries/branches.

The sample is split into three subsamples: pre-crisis (2007 – 2008), crisis (2009 – 2010) and post-crisis (2011 – 2013, March – the late data available). The cutting points had been determinate by analyzing the developments in main macroeconomic and financial indicators. Even if the global crisis started in September 2008, the liquidity shock impacted the Romanian banking system a few months later. This
methodology supports a detailed analysis of liquidity risk developments in the banking system. The structural changes that occurred in the last years can be observed only by considering independently the pre-crisis, crisis and post-crisis periods. Aggregated liquidity indicators for the entire period are not representative for any of the three sub-periods.

<table>
<thead>
<tr>
<th></th>
<th>25th percentile</th>
<th>Median</th>
<th>75th percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007 – 2008 (pre-crisis)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIQRAT</td>
<td>28.39104</td>
<td>31.51141</td>
<td>35.21083</td>
</tr>
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<td>SECRAT</td>
<td>2.33478</td>
<td>2.90857</td>
<td>3.911004</td>
</tr>
<tr>
<td>DEPRAT</td>
<td>31.20485</td>
<td>31.86963</td>
<td>32.78785</td>
</tr>
<tr>
<td>CREDRAT</td>
<td>86.85406</td>
<td>87.33889</td>
<td>87.81944</td>
</tr>
<tr>
<td>EXTRAT</td>
<td>24.79627</td>
<td>27.96498</td>
<td>28.51236</td>
</tr>
<tr>
<td>2009 – 2010 (crisis)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIQRAT</td>
<td>30.06621</td>
<td>31.08644</td>
<td>31.71214</td>
</tr>
<tr>
<td>SECRAT</td>
<td>8.976282</td>
<td>10.77022</td>
<td>11.9409</td>
</tr>
<tr>
<td>DEPRAT</td>
<td>24.32702</td>
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<td>28.91562</td>
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<tr>
<td>CREDRAT</td>
<td>77.07472</td>
<td>78.15128</td>
<td>80.66074</td>
</tr>
<tr>
<td>EXTRAT</td>
<td>26.35376</td>
<td>26.89572</td>
<td>27.69316</td>
</tr>
<tr>
<td>2011 – 2013, March (post-crisis)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LIQRAT</td>
<td>32.99973</td>
<td>34.90467</td>
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<td>SECRAT</td>
<td>15.11927</td>
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<td>17.23413</td>
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<td>24.23718</td>
<td>24.68005</td>
<td>25.62388</td>
</tr>
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<td>CREDRAT</td>
<td>73.55617</td>
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<tr>
<td>EXTRAT</td>
<td>24.45361</td>
<td>25.58517</td>
<td>26.30577</td>
</tr>
</tbody>
</table>

Table 2. Bank liquidity indicators (monthly frequency)

Source: NBR

The median values for the liquidity indicators for Romanian banking system, as well as the 25th and 75th percentiles of their distributions for all the three subsamples are presented in Table 2. Moreover, in Table 3 are posted the changes in indicator values during crisis and post-crisis periods compare to pre-crisis levels. The indicators are computed by using monthly data.
<table>
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<tr>
<th></th>
<th>25&lt;sup&gt;th&lt;/sup&gt; percentile</th>
<th>Median</th>
<th>75&lt;sup&gt;th&lt;/sup&gt; percentile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes between 2009 – 2010 (crisis) and 2007 – 2008 (pre-crisis)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>LIQRAT</td>
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<td>SECRAT</td>
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<td>CREDRAT</td>
<td>-9.77934</td>
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<td>EXTRAT</td>
<td>1.557488</td>
<td>-1.06926</td>
<td>-0.8192</td>
</tr>
<tr>
<td>Changes between 2011 – 2013, March (post-crisis) and 2007 – 2008 (pre-crisis)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIQRAT</td>
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<td>EXTRAT</td>
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<td>-2.37981</td>
<td>-2.20659</td>
</tr>
</tbody>
</table>

Table 3. Changes in bank liquidity indicators in crisis and post-crisis period compare to pre-crisis levels

Source: NBR

Bank holdings of liquid assets (LIQRAT) increased in post-crisis periods, in average, but also along the distribution. In crisis period, the decreasing trend reversed, consequently the values for pre-crisis and crisis periods are relatively similar. Among the high liquid assets, government securities were the main driver of the liquid assets expansion. There were two factors that generated this increased in banks holdings of liquid assets. First, the economic crisis triggered large fiscal deficits and determinate government to issue significant amount of securities to finance its expenditures, therefore government securities supply boosted after 2008. Second, the economic downturn caused non-performing loans to rise rapidly and banks become reluctant to borrow money to debtors with a negative credit risk outlook. The government securities offered to the banks a better risk versus return option compare to lending to companies and households.

SECRAT emphasizes the strong increase in banks holdings of government securities after global financial crisis inception in 2008. The government securities are eligible for open market transactions with the central bank and can be assimilated to cash. During financial crisis, when the access to funding slumps, owning large portfolio of government securities support banks to regain access to resources by avoiding capital markets. Based on SECRAT developments can be pointed out that Romanian banking system resilience to liquidity shocks is much higher in present compare to pre-crisis period.

The ratio of demand deposits in total deposits (DEPRAT) steadily declined in crisis and post-crisis periods, in line with the banks’ strategy to enhance their capacity to absorb liquidity shocks. Even if during a banks run the term deposits are as much as volatile as the demand ones, if the confidence in the
banking system is maintained during turmoil, term deposits can act as a stabilization mechanism for banks. As of first quarter of 2013, demand deposits count for only 25% of total deposits taken by banks. The new global standards in liquidity risk management, named Basel III standards, encourage banks to hold more term deposits and less demand deposits and wholesale funding, because during the financial crisis the banks that relied heavily on short term funding suffered the largest losses. Those banks lost rapidly the access to capital markets to rollover their debt and experienced also higher funding costs.

Lending activity in Romania slumped in the aftermath of the global liquidity shock triggered by Lehman Brothers failure in September 2008. The decline continued also in post-crisis, pointing out the strong severity of liquidity shock. The structural changes that occurred after 2008 in Romanian banking system consist of a more diversified portfolio between credit and liquid assets. As of first quarter of 2013, the share of credit portfolio in total assets (CREDRAT) is 74%, while the same indicator posted a value of 88% before the crisis. The change is even stronger if one takes into account that total assets in Romanian banking system almost stagnated between 2009 and 2013.

External funding was the main driver of credit expansion in Romania before 2008. As an emerging economy with high growth potential, the internal saving ratio was below the financing needs of real sector. Therefore, foreign owned banks accessed funds from parent institutions to fuel the lending activity and to close the gap between credit supply and demand. In addition, banks anticipated before 2008 higher growth rates at least in medium run for Romanian economy and entered a competition for market share. That competition accelerated even higher the growth in lending activity. The global financial crisis forced banks to switch from an intensive external funding reliance to a more domestic oriented one. Consequently, the ratio of external funding in total liabilities (EXTRAT) returned in the first quarter of 2013 to the level recorded at the beginning of 2007.

5. CONCLUSIONS

Romanian banking system experienced structural changes in the last years due to the EU ascension in 2007 that boosted foreign investments, as well as the global financial crisis in that emerged at the end of 2008 and triggered a liquidity shock wave. There were not toxic assets in banks balance-sheet similar to the ones that caused turmoil on developed financial markets. Nevertheless, the contagion materialized through the ownership structure of Romanian banking system and expectations regarding the magnitude of global financial crisis impact on emerging European countries.

During 2007 – 2008 the lending activity in Romania reached high levels and banks funded the credit portfolio in large extend with external resources from parent institutions located abroad. Banks underestimated liquidity risk because of the positive economic outlook and engaged in lending to companies and households. The stock of liquid assets was lower and diminishing in relative terms.

When the global financial crisis hit at the end of 2008, the Romanian banking system was vulnerable to liquidity shocks due to the low holdings of liquid assets, but also a strong reliance on external funding that slumped in the aftermath of Lehman Brothers failure. In order to enhance their resilience to liquidity risk, banks adopted a more prudent strategy and switched from lending activity to investments in government securities. The benefits were twofold: low liquidity risk and low credit risk in a period with increasing non-performing loans for companies and households. Moreover, the banks reduced the rollover risk for external debt by getting resourced from domestic markets. During the crisis, the domestic resources were more stable than the parent funding because the developed financial markets were hit first by the financial crisis.
In present, Romanian banking system is better prepared to absorb a liquidity shock compare to 2008. The large holdings of government securities, lower dependency of foreign funding and a more robust structure of deposit maturities increased the banking system resilience to liquidity risk. Consequently, Romanian banks become more averse to liquidity risk. A balance structure of banks assets and liabilities between risk and return/cost improves the banking system flexibility to adapt to changes in liquidity conditions.

ACKNOWLEDGMENTS
This work was co-financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013; project number POSDRU/107/1.5/S/77213 „Ph.D. for a career in interdisciplinary economic research at the European standards”.

REFERENCES
SUPPLY RISK MANAGEMENT: MITIGATION STRATEGY
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Abstract

The role of risk management is to analyse the measures aimed at protecting firms, specifically the Risk Management techniques.

Company protection is a field in which managerial innovations are urgently required. The need for the supply risk management is the result of social awareness for safety, law-makers desire to regulate dangerous activities and protect individuals exposed to risk, the evolution of technologies which are becoming increasingly complex and dangerous. Malicious and accidental events imply substantial costs that in the most severe cases can even exceed the company’s financial capability. An accurate management of these events and a mitigation strategy can then be a valuable source of saving.

A low level of propensity to manage and govern mere risks is also due to a specific firm-insurance company relationship characterised by both co-operation and conflicts: nowadays firms do not want “traditional” insurance policies only; they require a range of quality innovative insurance-financial products with consulting services.

Key words: Supply risk management, mitigation strategy, Insurance

TRADITIONAL RISK MANAGEMENT AND RELEVANT EVOLVED TYPOLOGIES

Innovation has always been the main development driver for individual firms and the production system as a whole. It does not exclusively involve technology and creation of new products and processes. Along with technological innovation we also have managerial innovations, namely identification of new techniques for resource management, labour organization, operation planning, decision-making.

Managerial and technological innovation may be aimed at cost saving, turn- over increase, quality improvement (also in the areas that can be hardly quantified), business management.

In its evolved typologies Risk Management is an example of managerial innovation aimed at managing wilful and accidental adverse events, also called business protection. These adverse events may include fire and computer crime, theft and brand counterfeiting, attacks and industrial injury, all of them causing damage to the organisation’s tangible and intangible assets and to its human capital. Business protection is a field urgently requiring managerial innovation due to the following reasons:

1)- management of wilful and accidental events likely is – both in the practice and in the corpus of business knowledge – the less advanced area amongst the different areas of the general business management. Compared to well-established functions such as marketing, finance, administration, many deficiencies can be found in decision-making methodologies, tool refinement, activity planning, evaluation of results and, in general, in the proper management of a business problem;

2)- wilful and accidental events increasingly tend to worsen. This phenomenon does not involve all typologies of risks but is particularly evident with respect to environmental risks and those associated with liability for product malfunctioning. This worsening is due to: a higher social awareness of safety
issues; the law-makers’ tendency to regulate hazardous activities; protection of individuals exposed to risk; evolution of technology towards forms characterised by a higher level of complexity and dangerousness;

3)- wilful and accidental events involve high costs that, in the most severe cases, cannot be afforded by the firm. A careful management of these events can then be a valuable source of saving.

There is an increasing need to rationalise and up-date business protection techniques. Amongst the innovations aimed at meeting this need Risk Management is the one that can be better applied to any typology of risk. Actually, while allowing for the management specificities of each class of wilful and accidental risks, Risk Management is based upon a more general approach.

To some extent Risk Management is a new managerial approach including each individual action aimed at protecting the organisation; it combines different approaches, risk management tools, expertises that, so far, have been characterised by fragmentation and lack of interconnection. It seems that risks can be systematically found at any level of the business functions (something that cannot be ascribed to the latest theoretical developments).

The traditional elements of Risk Management include:

- A) Structuring of risk management activities, according to a sequence-based model where final decisions are supported by a preliminary identification of the individual and potential risk. The model includes three fundamental phases:
  - 1) risk identification, aimed at implementing a regular and constant monitoring of the possible threats;
  - 2) risk evaluation, namely the translation of threats in quantitative terms, in particular by determining the likeliness of the event occurrence and the potential seriousness of the damage;
  - 3) risk treatment, within which the most suitable actions are decided and implemented in order to reduce risks and bring them at a level viewed as convenient vis-à-vis the firm’s targets;

  Linking risk treatment to a preliminary data gathering and processing means getting rid of empirical decision-making approaches based on approximations and intuition-based judgements that do not allow for the firm’s overall cost effectiveness. Additionally, the identification and evaluation phases enable to enhance prediction abilities as to possible adverse events, above all if they are new events or events that do not occur on a regular basis.

- B) high integration amongst the different risk management tools. Business protection is characterised by a high heterogeneity of the issues covered and by substantial differences amongst the action tools used. Insurance on the one hand, and technical solutions to prevent threats on the other hand, are two separate worlds with different counterparts, expertises and philosophies.

- C) Extension of the range of tools, trespassing into the field of flow management financial techniques. The basic principle is the attempt to reproduce a number of aspects typical of the risk portfolio of the insurance companies. The basic advantage is a higher flexibility and freedom when deciding which business protection traditional tools have to be used.

- D) Shifting decision-making methodologies toward a financial approach; in line with what is already done when assessing any business investment. A harmful event is basically viewed as the source of a negative monetary flow and Risk Management actions as tools to reduce these flows.
E) Searching for the maximum possible integration between the management of wilful and accidental events and the overall business management. Business protection suffers from a sort of a particularly harmful organisational isolation; the managers entrusted with this area should instead constantly interact with the managers from all functions. As each function is exposed to specific risks, managers should contribute to identifying and preventing potential threats.

Risk Management is based on the creation of links between firm protection and firm management, with a specific focus on the development of suitable communication tools and the assignment of a specific position to the person charged with risk management (a position equal to the one held by the various functional managers).

However presenting Risk Management as a managerial innovation is in conflict with the fact that the most advanced nations have adopted this technique many years ago (in particular Great Britain and U.S.A). Risk Management is one of the most common managerial techniques used in many no-profit organisations as well.

Traditionally Risk Management is confined to the so called pure risks, namely those risks that only take the possibility of loss into accounts. The general aim of the risk management sub-system is then to guarantee protection against unfavourable events and their effects.

Given for granted that Risk Management is closely linked to the firm’s size, what mostly differs real Risk Management from an insurance-type risk management is the assignment of competences both in the prevention and insurance fields.

In the case of risk insurance management, a distinction must be made between two different situations: 1) the relationship with the insurances is managed accurately, following modern procedures and with suitable resources; 2) the firm confines itself to a mere operational management of policies and accidents.

RESOURCES AVAILABLE AND RELATIONSHIP WITH THE INSURANCE COMPANY

It is worth highlighting the low level of dissemination of the Risk Management function in Italy. The typology and quality of the operations carried out, the tasks and objectives assigned and the resources available depend on the deficiency of human and financial resources. Additionally, objectives and Risk Management concept evolve more rapidly than resources, thus generating a deeper discrepancy just in the most developed firms where risk managers perform their function.

It is worth mentioning another crucial element of analysis: the variability of resources in the event of a crisis. Actually when a firm experiences a period of sales reduction, some of the measures required to maintain management cost effectiveness are: rationalisation of the activities and reduction of unproductive expenses. Expense reductions usually involve those related to Risk Management, although this function is allocated a lower level of resources than other areas equally subject to expense cuts. The objection might be raised that Risk Management is a function that might generate revenues or non-losses (e.g. the economic damages avoided by the firm thanks to accident prevention). However the business practice is resolutely in favour of the Expense Centre approach.

It is usually maintained that the development of Risk Management is closely linked to the evolution of the firm-insurance company relationship. In the United States the acceleration in Risk Management growth coincided –as from the 80’s – with a particularly unfavourable economic trend of the insurance market, also characterised by difficulties in obtaining risk coverage for a number of risk categories.
According to many authors, the practice of the Italian insurance market unfortunately reflects this model that does not favour the dissemination of Risk Management and justifying the firms’ management deficiencies with the behaviour of the insurance companies is not sufficient.

In general it can be maintained that Risk Management tends to develop above all because insurance companies are quite demanding as to safety measures, are unwilling to cover any typology of risk and extremely accurate in searching a cost-effective technical management. The characteristics of the relationship with the insurance company have to be analysed regardless of the coverage problem. The insurance policy can be supplemented with a number of ancillary services that the firm might require from the insurance company (considering its competence in this field).

The risk analysis is the whole set of operations and methodologies used to identify and assess mere risks. The threats the company assets are exposed to cannot be easily identified as they are usually “hidden” behind apparently normal and safe situations. The risk analysis includes collection and processing of data to improve risk knowledge, increase the level of accuracy of the measures and refine the quality of the decision-making processes; identification is instead aimed at analysing which are the potential threats the firm is exposed to, describing their source and potential effects; assessment defines, whenever possible, the extent of the risk through a quantitative measure (maximum possible loss, mean possible loss, etc.)

Both stages of the risk analysis are necessary, although the former is more widespread and the latter is sometimes viewed as a scarcely useful additional analysis. Risk assessment usually referred to the insurance company that, on its turn, often does not carry out detailed analyses but just applies a number of standard parameters to quantify the threat.

There are different effects resulting from an insufficient risk analysis:

- Lack of preparation of the firm in front of concrete threats that were not identified or underestimated;
- Misallocation of the resources to various insurance policies and other items, related to different typologies of threat, with excess expenditures for not severe risks and lack of expenditures for really dangerous risks;
- impossibility, due to the lack of reliable data, to use cost-effective decision-making methodologies.

In general, the dissemination of rigorous approaches to risk analysis has to be viewed as a crucial component to assess the practice of mere risk management. Modern firms consider the quantity and quality of data as a key for efficiency and competitive success. Risk Management cannot be included in the crucial management areas without having a reliable information system basically including news and data on risks.

It is difficult to make empirical and theoretical generalisations with respect to risk prevention. The physical protection of the firm’s resources against malicious or accidental threats is an idea that - under unitary concepts – actually hides a large fragmentation of the problems. For example, protection of information systems and repression of brand counterfeiting have very little in common (different expertise required, different operational tools, management principles, reference actors). Such a heterogeneity requires independent organisational solutions that prevent from identifying within the firm an area responsible for managing risk prevention as a whole.
INTEGRATION BETWEEN INSURANCE AND PREVENTION

One of the Risk Management key principles provides for a unitary management of physical safety and insurance.

These two tools can be either complementary or replaceable. While the complementarity relationship between prevention and insurance is quite obvious (provided the company has accurately analysed the quality of the risk covered and adjusted the premiums consistently), the replaceability relationship is not always fully understood.

Risk retention is a solution that can be adopted when the risk can be taken on using the firm’s regular financial resources. It is well-known that, if we consider the resulting positive and negative financial flows, in the long term insurance is never convenient from the economic point of view. Actually if the premium paid by the clients is higher (wrong assessment made by the insurer excepted) than the expected average loss linked to the risk taken on without adversely affecting the firm’s financial balance, retention might be an interesting and favourable solution.

Without dwelling on a “financial-term” of Risk Management, there is no doubt that retention – vis-à-vis prevention and insurance – constitutes a third element the management of mere risks has to pay the due attention to. An advanced and modern Risk Management implies that risk managers have to devote part of their time to the financial planning of the interventions to be implemented in close co-operation with the Financial Managers.

DECISION-MAKING METHODOLOGIES.

Decision-making methodologies are the whole set of approaches, techniques and rules used to choose the most suitable option allowing for the objectives to be pursued.

All problems admit at least two options as we have to decide whether we want to do something or not.

Within a firm decision-making methodologies must have an economic feature, as the objectives to be achieved are economic objectives. This means that, in principle, any decision problem must be addressed by comparing the costs and revenues associated with the options available. Of course this approach does not include the cases in which a behaviour is compulsory or justified by strategic considerations that do not allow for an economic quantification.

In the Risk Management field decision-making methodologies are affected by the high level of uncertainty of mere risks. To make proper decisions from the economic point of view, we should know in detail which is the loss that a given risk would generate in a given period; however, clearly enough, this information might be acquired only if the risk would be certain, i.e. if the risk would not be a risk any longer.

Consequently in Risk Management less rigorous decision-making methods must be adopted, resorting to personal experience and empirical rules. This does not mean that we have to exclude the economic calculation that can be made based on uncertain although quite reliable data, provided that an accurate identification and assessment work is carried out so as to get reliable data on many risks, above all on those the occurrence of which is not very infrequent.

Brokers and insurers are a crucial reference parameter in the decisions to be made; sometimes law provisions, broker’s or insurer’s opinions are accepted in a passive way. In highly decentralised firms with long hierarchical scales, top management directly intervenes only on crucial matters; therefore its
involvement in Risk Management has to be interpreted as a sign of interest in the mere risk problems. Vice-versa, in centralised firms with short hierarchical scales, top management, that often coincides with ownership, tends to participate in any decisions and the not infrequent direct management of mere risks, meant as a mere purchase of insurance polices, has to be viewed as an indicator of a lack of Risk Management.

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SUPPLY AND DEMAND OF COMPETENCES FOR HIGHLY QUALIFIED LABOUR IN LATGALE REGION

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Abstract

The article deals with the theoretical aspects of competences, especially emphasizing the significance of the professional higher education in forming competences. When carried out the surveying among three target groups: students, lecturers and employers, the authors have researched what competences are offered and required in the labour market as regards highly skilled labour – people who have acquired higher education in one of the 5 planning regions of Latvia - in Latgale region. Consequently the most important competences were determined and their improvement opportunities in the conditions of based on knowledge economic. To facilitate the employment of higher education establishments graduates, it is significant for higher education establishments to cooperate with employers, thereby forming competences of graduates according to the labour market requirements.

Key words: professional higher education, knowledge, skills, abilities, competences, labour market.

INTRODUCTION

People – quality of their education, experience in work within the swiftly changing socially-political and economic conditions, knowledge, skills and capacity to believe in the put forward aims, as well as in the possibility of their implementation - are the main values within the circumstances of economic based on knowledge (Pārskats par tautas attīstību, 2007).

In the basis of professional labour lies high quality education and profession in demand, as well as they facilitate the development of the state and national economy growth, since economic competitiveness to a great extent is determined by the quality of human capital. The principles describing the competence of an employee, his/her professionalism or qualification have significantly changed. As the authors I.Lapiņa, D.Aramina (2011) suggest, earlier they were determined by taking into account only a certain level of education and qualification including almost only technological knowledge and skills in a particular sphere, however, nowadays competences are viewed as abilities to solve any problems occurred within production or selling process.

Although unemployment in Latvia is still a topical problem, another tendency becomes more and more urgent – the lack of qualified labour. The results of a local governments’ self-evaluation inspection carried out in 2011 confirm that, since in average 78,2 % of local government heads in Latvia indicated that in their territory is in need of qualified labour, in Latgale region such fact admitted 71,4 % of the surveyed local governments’ leaders (Regionu attīstība Latvijā, 2012). Therefore more and more important becomes the role of professional education in formation of human capital and its efficient use in Latvia and its regions so that during the acquisition of education the students would develop the competences according to the of labour market requirements.
The aim of the research is to examine the real and the desired level of competences of the highly qualified specialists, to compare the relative significance of separate competence groups in the labour market in one of Latvia’s regions – in Latgale, as well as to determine the most important competences and their improvement possibilities.

Tasks of the research:

- describe the theoretical aspects of competences;
- to view the higher professional education in the context of competences development;
- to describe the methodology of the research;
- to perform the analysis of the data acquired within the inquiry and their interpretation;
- to draw conclusions.

Methods of the research – monographic method, sociological research method (survey), statistical and economic analysis, graphical method.

THEORETICAL ASPECTS OF COMPETENCES

In the literature there are differences of the concept competence interpretation. Competence in the dictionary of economic terms is explained as a range of issues where a human has wide knowledge, experience (Ekonomikas skaidrojošā vārdnīca, 2000). The researcher R.Garleja (2004) views competences as an integrative category describing interactions among the skills, experience and result. A.Rauhvargers (2007) defines the term competence as a body of knowledge, skills and attitudes qualifying for the performance of a work at a certain level. I.Lapiņa, D.Aramina (2011) note that competences are not only taught, acquired and accumulated knowledge, but also the abilities to apply and develop them. Competence is related to the abilities of an individual to study, communicate and cooperate within the changing environment. Thus in reality a competence has become one of the main features of a person and thereby is closely related to the development of human capital.

The researcher R.Arnold (1997) believes that a competence embodies indicators integrating boundlessly many actions and it has the following features:

- competence is related to an action subject;
- competence is viewable from the approach of personality’s entirety;
- competence is related to the subject’s capacity of self organization;
- competence is acquired by studying.

The authors define competences as a capacity of a person to apply the knowledge and skills to perform professional tasks in particular spheres.

The concept of competences has several levels: 1) individual level, often related to the professional growth of individuals and career development strategies and their significance in formation of a person’s life; 2) level of public institutions and social partners, which is a tool of employers for effective human resource management and development; 3) national level; 4) international level, when competences are viewed within the national policy, globalization and labour market internationalization context; 5)
scientific research level, defining competences in the context of various branches of sciences (Laužackas, Tūtlys & Spūdytė, 2009).

In the researches 2 types of competences can be found: 1) behavioural competences (*soft skills*) is a viewpoint regarding the acting in such a way to perform the work well; 2) technical or functional competences (*hard skills*) include the things an individual must know and do, to perform his/her work well.

Competences also are formed by:

- motives of a personality– needs, interests, attitudes (behavioural competences);
- character traits of a personality (communication skills, self control, and ability to control stress, ability to make decisions and solve problems (behavioural competences);
- appearance and behaviour (behavioural competences);
- professional knowledge and education (functional competences);
- professional (work) experience, skills and acquirements (functional competences), (Armstrong, 2006)

D.T.Hall (2002) marks out special competences – „metacompetences”, influencing the abilities of a person to acquire other competences:

- identity (self-assessment; outward assessment of a personality; investigation; communication and active action, by assessing personal values; being opened with other people, to search actively the cooperation with people, who are different and from whom it is possible to learn; being able to change self-comprehension regarding the abilities, roles and other personal capacities and changes);
- adaptation abilities (flexibility, investigation and receptiveness to new ideas and people, abilities of dialog and a wish to accept changes, to acquire new things and feeling of comfort during continual changes un).

To identify competences and skills in the scientific and business researches are used such terms as general skills (*generic, key transferable, core*) and employment skills (*employability*) or specialized skills. (Yorke 2006; Hind & Moss 2011). I.Jaunzeme (2010) concludes that due to the changes of labour market demand on general and career management competences will increase. The researcher emphasizes that these groups of competences are especially significant in Latvia, when formation of small and medium size companies, employment at a status of self-employed person are facilitated at a national level, and when a decision regarding employment must be made by each individual him/herself more often than before. Changes in the labour market influence also professional employment and a career of a person. It means that more and more often people will need to involve in the formal education process, as well as to look for a new job. Thus topical becomes acquisition of career management skills, which would elucidate the opportunities to involve in the process of searching work, make decisions concerning own employment and education more productively, and what would create the comprehension about the labour market, professions and personal prospective in the professional field.

In the literature there is no unified opinion regarding the classification of competences. The authors in the Table 1 have summarized the classification of competences available in several information sources.
Table 1

<table>
<thead>
<tr>
<th>Basic competences set up by the European Commission (Proposal for a recommendation …, 2005)</th>
<th>Competences to be acquired as a result of higher education according to Tuning project (Adam, 2004)</th>
<th>Competences (Lapiņa, 2010)</th>
<th>Competences (Spensers &amp; Spensere, 2011)</th>
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<tbody>
<tr>
<td>• Communication in native language</td>
<td>• Instrumental</td>
<td>• Personal</td>
<td>• Achievements and behaviour</td>
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<tr>
<td>• Communication in foreign language</td>
<td>• Interpersonal</td>
<td>• Professional</td>
<td>• Social</td>
</tr>
<tr>
<td>• Mathematical competence and basic competences in science and technology</td>
<td>• Systemic</td>
<td>• Social and communicative</td>
<td>• Influence</td>
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<tr>
<td>• IT using competence</td>
<td></td>
<td>• Innovative and management (leader) competences</td>
<td>• Leadership</td>
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<tr>
<td>• Learning to learn</td>
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<td></td>
<td>• Cognitive</td>
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<tr>
<td>• Initiative</td>
<td></td>
<td></td>
<td>• Personal efficiency competences</td>
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<tr>
<td>• Interpersonal, intercultural and social and civic competences</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Cultural disclosures</td>
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The authors will view general competences in the practical research, since they consider that in the condition when human resources diminish and in the often changeable social and economic conditions professional education institutions in Latvia can not afford to prepare specialists with narrow specialization.

HIGHER PROFESSIONAL EDUCATION IN LATVIA IN THE CONTEXT OF COMPETENCES’ FORMATION

Investments into the higher education facilitate the training of higher quality specialists and the work of highly qualified professionals is the most important factor for the economic growth (Aghios 2008). Formation of human capital mostly depends on the state education development and facilitation of all its systems efficient operation. I. Lapiņa, D. Aramina (2011) note that education can be considered to be:

- an important factor in the process of labour force formation;
- an accumulator of intellectual potential, forming favourable conditions for scientific and technical progress, improvements of work productivity;
- a facilitator of culture as an economic factor by developing cognition and coordination of activities which in their turn ensure cooperation of scientific organizations and society;
- a factor creating conditions for society interests harmonization;
- the decisive factor of the labour quality characteristics – all that forms a person as a personality and is reached through educating and as a result of work process.
The significant role of education in training highly qualified specialists is emphasized in the long term and medium term planning documents of the European Union and Latvia. For instance, in the announcement of the European Commission “Europe 2020: strategy for smart, sustainable and inclusive growth” in the issue of employment promotion are mentioned the following main activities: to raise the productivity of education system and facilitate integration of the youth in the labour market and create conditions for labour market modernisation to enhance the level of employment. Thus people are given the opportunities by acquiring new skills to adapt to the new circumstances and possible change of career the unemployment is diminished and efficiency of work is increased (Europe 2020, 2013).

In the sustainable development strategy of Latvia until year 2030 (2013) it is stated that innovative economic requires constantly new skills and competences, creates the need repeatedly and regularly supplement our knowledge and skills, returning to school desk in order to adapt to the changeable labour market requirements. Greater and greater significance gains technological competence, capacity to integrate abilities and competences of various spheres, creative skills, human and risks management abilities, as well as openness to international and intercultural cooperation. It means that competitive capacity of Latvia more and more will depend on the link of education system with the labour market changes and the capability to prepare a person for work in variable conditions life-long. Education establishments in cooperation with the regional entrepreneurs should follow the tendencies in the local and global national economy, to be able to predict and offer such content and format of studies which enabled the both the regional development and competitiveness of individuals and organizations in the tomorrow economy. Simultaneously in “Latvia 2030” a need to avoid narrowed training in professional programs is suggested, mentioning that “in professional programs in professional higher education and vocational secondary education, along with the chosen speciality as a priority must be provided good enough knowledge regarding the related professions, in order to be able in case of necessity to acquire another profession required in the labour market. Development of human capital include actions enhancing the abilities of an individual to work efficiently and improve his/her own competences and abilities thereby increasing productivity of their work, opportunities of a career and employment potential. Skills and competences must continuously be developed and improved both in order to facilitate human resources’ productivity and competitive capacity, and in order to allow the workers with lower grade qualification to break from the circle of low income or even poverty.

Also in the medium-term planning document – Latvian National Development Plan 2007 – for year 2013 (2013) as the main resource of growth is mentioned knowledge. It is emphasized in the plan that neither the riches of Latvian nature, nor the cheap labour will be able in long term to serve as the basic resource of the state growth. Knowledge and intelligence of the population, their skilful and purposeful application promotes the quality of labour force, capital use and the development of technologies. Knowledge management, integrated and advanced their creation, accumulation, distribution and application as a complex process regarding basis of economic and social life, including all the country and society.

According the description of Latvian education system (Izglītības sistēmas raksturojums, 2013) level 5 of the higher education complies with the International Standard Classification of Education (ISCED). Qualification acquired in the second level professional higher education programs complies with the 5th professional qualification level. The fifth level means the highest qualification of a particular sphere specialist providing an opportunity to analyze, make decisions, project and/or plan, organize, manage control, and/or perform scientific research work in the corresponding sphere independently. Usually in such programs simultaneously with the qualification one acquires also the professional Bachelor degree in a certain sphere of national economy.
According to the Rules of the Cabinet of Ministers No.990 “Rules on Latvian Education Classification” 2nd level professional higher education (acquirement of the 5th level professional qualification and professional Bachelor degree in the sphere of professional qualification) or 2nd level professional higher education (acquirement of the 5th level professional qualification), the length of full time studies – at least 4 years, complies with the 6th level of the European Qualification Frameworks (EQF). 2nd level professional higher education which ensures the acquirement of the 5th level professional qualification and professional Master’s degree or professional Master’s degree in the sphere of professional activity, the length of full time studies – at least one year, total length of full time studies – 5 years, complies with the 7th level of EQF.

In the Table 2 the profile of competences is summarized which is acquired by a graduate of Bachelor or Master’s level as a result of professional higher education.

### Table 2

**Descriptions of final requirements of the higher education cycles**

*(Latvijas izglītības sistēmas piesaiste...*, 2013)

<table>
<thead>
<tr>
<th>Description</th>
<th>Bachelor (6th level of Latvian Qualification Framework)</th>
<th>Master (7th level of Latvian Qualification Framework)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bachelor competences include secondary education school-leaver competences and are acquired in science or theoretical basics of professional sphere in integrated studies</strong></td>
<td>Master’s competences include Bachelor competences and are acquired in science in integrated studies, where a significant component is a research work, continually drawing insights and conclusions</td>
<td></td>
</tr>
<tr>
<td><strong>In addition to secondary school graduate competences, a person having a Bachelor degree IS ABLE:</strong></td>
<td><strong>In addition to Bachelor competences a person having a Master’s degree IS ABLE:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Knowledge and comprehension</strong></td>
<td><strong>To show basic or specialized knowledge typical of corresponding science or profession and critical comprehension of their knowledge, including the part of knowledge running deep into the highest achievements of the corresponding science or profession</strong></td>
<td><strong>To show deep or broadened knowledge and comprehension, part of which is in forefront in the corresponding science or professional sphere and which ensure the foundation for creative thinking or research, including acting in contact of various spheres</strong></td>
</tr>
<tr>
<td><strong>Ability to apply knowledge</strong></td>
<td><strong>Using the acquired theoretical basics and skills, to perform professional, artistic, innovative or research work</strong></td>
<td><strong>Independently apply theory, methods and problem solving skills, to carry out a research or artistic activity or high qualified professional functions</strong></td>
</tr>
<tr>
<td>Analysis, synthesis, evaluation</td>
<td>General skills</td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>• Independently obtain, select and analyze information and use it</td>
<td>• To structure own learning independently, to advance further education and professional development of oneself and the inferior workers</td>
<td></td>
</tr>
<tr>
<td>• Make decisions and solve problems in a corresponding science or profession</td>
<td>• To show scientific approach to problem solving</td>
<td></td>
</tr>
<tr>
<td>• Show that understands the professional ethics</td>
<td>• To bear responsibility and initiative performing work individually, in a team or managing work of other people</td>
<td></td>
</tr>
<tr>
<td>• Assess the impact of own professional activity on environment and society and participate in the work of corresponding professional sphere</td>
<td>• Make decisions and find creative solutions in changeable or unclear circumstances</td>
<td></td>
</tr>
<tr>
<td>• Independently formulate and critically analyze complicated scientific and professional problems</td>
<td>• To advance independently the development of own competences and specialization</td>
<td></td>
</tr>
<tr>
<td>• To substantiate decisions and, if necessary, perform additional analysis</td>
<td>• To bear responsibility for work results of personnel groups and analysis of the results</td>
<td></td>
</tr>
<tr>
<td>• Integrate knowledge of various spheres</td>
<td>• To carry out business activities, innovations in the corresponding science or profession</td>
<td></td>
</tr>
<tr>
<td>• Contribute to creation of new knowledge, development of research or professional activity methods</td>
<td>• To carry out work, research or further learning in complicated, unpredictable conditions and, if necessary, transform them using new approaches</td>
<td></td>
</tr>
<tr>
<td>• Show comprehension and ethical responsibility for the scientific result or possible impact of professional activity on the environment or society</td>
<td>using arguments to comment and discuss on complicated or systemic aspects of one’s science or professional sphere both with specialists and non-specialists</td>
<td></td>
</tr>
</tbody>
</table>

In Europe in the higher education, within the framework of the project *Tuning*, which started its action in 2000 (*Tuning Educational Structures…, 2013*), it was provided for to determine the set of competences which are general for all stages. In the beginning there was compiled a list of 85 competences which were marked by higher education establishments as the most essential. In the higher education in the framework of the project *Tuning* there was created a typology based on three kinds of competences: instrumental, interpersonal and systematic. Similarly developing the European Qualification Framework up to the framework of eight levels, based on statements about knowledge, skills and competences. In the *Tuning* project own classification of general learning results is developed which is expressed in the instrumental competences, interpersonal competences and systemic competences. Classification can be depicted in a table (Table 3).
The main function of *Tuning project* learning outcomes was to popularize the significance of generic competences which are not based on subjects but are general and transferable. One of critical issues is that graduates, employers and education establishment staff often use different skills’ classifications basing on the importance of skills.

In higher education learning outcomes are interpreted as “statements regarding the things a student should know, understand and/or be able to demonstrate after s/he has finished the studies” (Wagenaar, 2004). Learning outcomes are defined as competences denoting dynamic combination of qualities, capacities and attitudes (Pāreja uz mācīšanās rezultātiem, 2008).

### Table 3

<table>
<thead>
<tr>
<th>Instrumental competences</th>
<th>Interpersonal competences</th>
<th>Systemic competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity for analysis and synthesis</td>
<td>Critical and self-critical abilities</td>
<td>Capacity for knowledge application in practice</td>
</tr>
<tr>
<td>• Capacity for organizing and planning</td>
<td>• Team work</td>
<td>• Research skills</td>
</tr>
<tr>
<td>• Basic general knowledge</td>
<td>• Interpersonal skills</td>
<td>• Capacity to learn</td>
</tr>
<tr>
<td>• Basic knowledge of the field of the profession</td>
<td>• Ability to work in an interdisciplinary team</td>
<td>• Capacity to adapt to new situations</td>
</tr>
<tr>
<td>• Oral and written communication</td>
<td>• Ability to communicate with other fields’ experts</td>
<td>• Creativity</td>
</tr>
<tr>
<td>• Knowledge of a second language</td>
<td>• Appreciation of diversity and multiculturality</td>
<td>• Management</td>
</tr>
<tr>
<td>• Capacity for computing</td>
<td>• Ability to work in an international context</td>
<td>• Comprehension of other cultures</td>
</tr>
<tr>
<td>• Information management skills</td>
<td>• Ethical commitment</td>
<td>• Ability to work autonomously</td>
</tr>
<tr>
<td>• Problem solving</td>
<td></td>
<td>• development and management of projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Spirit of initiative and enterprise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Concern regarding quality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A wish to succeed</td>
</tr>
</tbody>
</table>

**DESCRIPTION OF RESEARCH METHODOLOGY**

In order to carry out practical research with aim to evaluate the real and desired level of competences, as well as to compare the relative significance of separate groups of competences, the authors developed inquiry forms and carried out surveying among three target groups: students, education staff, and employers.

Authors divided the generic competences in 7 groups:

- **Personal competences** – a desire and ability of a person to work, to form him/herself as a personality, to develop own talent, capacity to put forward more and more complicated personal aims.
- **Professional competences** - self-organization of a person for intellectual or physical work by using professional knowledge and practical skills.
Innovative competences - self-organization of a person to create new ideas, disclosure of creativity and capacity to apply innovations and innovative technologies in practices.

Social and communication competences – self-organization of a person to cooperate and communicate with other people, people groups in order to reach common aims.

Management competences - self-organization of a person for a purposeful action using own initiative, enterprise, capacity to assess the surrounding environment by objective considerations and to determine the directions of development opportunities.

Self-presentation competences – self-organization of a person to find work, capability to develop CV, covering letter, ability to present him/herself at work interviews, capacity to reach an agreement with an employer regarding the job responsibilities and remuneration, self-proving at a working place.

Intercultural competences - self-organization of a person to work in an international environment, acceptance of intercultural differences and their application to achieve common goals.

Respondents were offered to compare groups of competences in pairs thus determining relatively the most important group of competences in each pair. For evaluation of coefficients of relative importance of criteria pair comparison method was used, where the evaluations were set in accordance with the verbally numeric scale. Application of verbally numeric scale increase objectivity and ensures the comparability. Coefficients of relative importance of criteria satisfy the following rules (Formula 1).

\[ 0 \leq F_i \leq 1, \quad (1) \]

where \( n \) is a number of criteria

Respondents, using verbally – numeric scale, filled in a matrix of pairs’ comparison (Table 4).

Table 4

<table>
<thead>
<tr>
<th>Competence</th>
<th>Personal competences</th>
<th>Professional competences</th>
<th>Innovative competences</th>
<th>Social uncommunicative competences</th>
<th>Management competences</th>
<th>Self-presentation competences</th>
<th>Intercultural competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal competences</td>
<td>a11</td>
<td>a12</td>
<td>a13</td>
<td>a14</td>
<td>a15</td>
<td>a16</td>
<td>a17</td>
</tr>
<tr>
<td>Professional competences</td>
<td>a21</td>
<td>a22</td>
<td>a23</td>
<td>a24</td>
<td>a25</td>
<td>a26</td>
<td>a27</td>
</tr>
<tr>
<td>Innovative competences</td>
<td>a31</td>
<td>a31</td>
<td>a33</td>
<td>a34</td>
<td>a35</td>
<td>a36</td>
<td>a37</td>
</tr>
<tr>
<td>Social uncommunicative competences</td>
<td>a41</td>
<td>a42</td>
<td>a43</td>
<td>a44</td>
<td>a45</td>
<td>a46</td>
<td>a47</td>
</tr>
<tr>
<td>Management competences</td>
<td>a51</td>
<td>a52</td>
<td>a53</td>
<td>a54</td>
<td>a55</td>
<td>a56</td>
<td>a57</td>
</tr>
<tr>
<td>Self-presentation competences</td>
<td>a61</td>
<td>a62</td>
<td>a63</td>
<td>a64</td>
<td>a65</td>
<td>a66</td>
<td>a67</td>
</tr>
<tr>
<td>Intercultural competences</td>
<td>a71</td>
<td>a72</td>
<td>a73</td>
<td>a74</td>
<td>a75</td>
<td>a76</td>
<td>a77</td>
</tr>
</tbody>
</table>
Where $a_{ij}$ is the result of comparison of ‘i’ and ‘j’ criteria. Evaluations were performed in accordance with verbally numeric scale:

$$a_{ij} = \begin{cases} 0 & \text{criterion } j \text{ is more important than } i \\ 1 & \text{criteria } i \text{ and } j \text{ are equally important} \\ 2 & \text{criterion } i \text{ is more important than } j \end{cases}$$

Assessment of relative importance of criteria is calculated according to formula (Formula 2). For convenience of interpretation relative importance of criteria is given in percents.

$$V_i = \sum_{j=1}^{n} \frac{1}{a_{ij}} \quad (2)$$

Aimed at evaluation of real and the necessary level of competences respondents were offered to assess the defined competences in each group of competences in details in a system of 5 evaluations (1- very poor; 2-poor; 3-medium; 4-good; 5-very good), as a foundation for their determination were used descriptions of final requirements of higher education cycles (Table 2) and Table 3 in subgroups were marked out competences, supplementing them in total up to 40 competences (Table 5).

### Competences and Their Division in Groups (developed by the authors)

<table>
<thead>
<tr>
<th><strong>Personal competences</strong></th>
<th><strong>Professional competences</strong></th>
<th><strong>Innovative competences</strong></th>
<th><strong>Social and communicative competences</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to analyze, summarize and evaluate information</td>
<td>Basic knowledge in professional field</td>
<td>Ability to use in practice innovations and innovative technologies</td>
<td>Written and oral communication in native language</td>
</tr>
<tr>
<td>Ability to use knowledge in practice</td>
<td>Deepened knowledge in professional field</td>
<td>Explorative skills</td>
<td>Written and oral communication in state language</td>
</tr>
<tr>
<td>Time planning and management</td>
<td>Ability to independently solve professional problems</td>
<td>Skills of information processing using information technologies</td>
<td>Ability to work in team</td>
</tr>
<tr>
<td>Ability to self-educate</td>
<td></td>
<td>Ability to adapt oneself to new circumstances</td>
<td>Ability to make relations with other persons</td>
</tr>
<tr>
<td>Critical approach and self-criticism</td>
<td></td>
<td>Ability to create new ideas (to be creative)</td>
<td>Ability to collaborate with representatives of different professional fields</td>
</tr>
<tr>
<td>Ability to comprehend criticism by objective considerations and to analyze it</td>
<td></td>
<td>Overtness for changes</td>
<td>Ability to communicate with representatives of other professions</td>
</tr>
<tr>
<td>Ability to work independently (individually)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aspiration for success</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills of self-restraint</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Management competences</strong></th>
<th><strong>Self-presentation competences</strong></th>
<th><strong>Intercultural competences</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ability to take responsibility for made decisions</td>
<td>Ability to plan and create own professional growth (career)</td>
<td>Knowledge of foreign languages</td>
</tr>
<tr>
<td>Ability to show synthesis of new, strategic ideas and making of strategic decisions</td>
<td></td>
<td>Acceptance of variety and intercultural fact</td>
</tr>
<tr>
<td>Leading skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to work out and to manage projects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spirit of initiative and enterprise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As a result the following indicators were acquired: the real level of competences (R) and the necessary level (V).

The significance of competences (S) was calculated by multiplying the assessment of the real competence level (R) with the evaluation of a necessary competence level (V). The necessary level of competence acts as a weighting factor in the real level of competence (Formula 3).

\[ S = R \times V, \]

where \( S \) – significance of a competence, \( R \) – real level of a competence, \( V \) – necessary level of a competence.

251 respondents were questioned - 182 (72,5%) students of two Latgale region leading higher education establishments Rezekne Higher Education Institution and Daugavpils University, including 132 (72,5%) students of professional Bachelor programs and 50 (27,5%) students of professional Master programs; 25 (10%) university lecturers, who simultaneously ware the directors of study programs (selected experts); 44 (17,5%) employers (selected experts).

RESULTS AND DISCUSSION

For statistical analysis and presentation of the results in the work the version 19.0 for Windows of program Statistical Package for the Social Sciences was used.

Figure 1. Average values of relative significance of competence groups (data summarized by the authors)
As we can see in Figure 1, if we do not mark out the relative significance of competence groups according to groups of respondents, in general the highest evaluation received professional competences, management competences, social and communicative competences take the second place. The authors interpret the move forward of competences by the fact that the respondents of all three target groups are oriented at professional activity – students by choosing a study program for professional Bachelor or professional Master’s studies, university lecturers by preparing the specialists for professional activity and employers by offering working places in their companies.

Figure 2. Average values of relative significance of competence groups among respondents of various groups (data summarized by the authors)

By viewing the acquired data according to the groups of respondents, following conclusions can be drawn - the evaluation according to the relative significance of competences differ – the higher is evaluated the group of competences, the relatively lower value is given to another group of competences. Students give comparatively higher evaluation to the groups of competences – self-presentation competences, intercultural competences. Authors explain it as a wish of students to self-actualise and prove themselves in the potential labour market, as well as many studying in the professional study programs choose to have practice abroad already during the studies, therefore the development of such competences allowing to work in the international environment seems to students to be relatively important. Lecturers evaluate higher such groups of competences as – innovative competences, social and communicative competences. The authors interpret it as a conviction of lecturers that in Latvia products with high added value there must be offered, development and implementation of which require creative and innovative solutions. University lecturers also admit the significance of social and communicative competences. Employers in their turn comparatively higher evaluate social and communicative competences and professional competences. Social and communicative competences are required by the environment in Latvia, where mostly dominate companies providing services. Well prepared professionals of their field are highly appraised in any company.
As we can see in Figure 3, respondents with Bachelor level education or respondents studying at a Bachelor level program comparatively higher evaluate management competences and intercultural competences. The authors explain it by the fact that respondents who are acquiring professional Bachelor degree have comparatively greater aspiration to be leaders than students of professional Master’s programs where the biggest part is already employed. Respondents of Bachelor level assess intercultural competences higher since they expect those to be useful in further life, working in an international company in Latvia or abroad, what in the conditions of globalization is unavoidable tendency. In their turn, respondents with Master’s degree or the students of Master’s level programs relatively higher evaluate personal competences and self-presentation competences. It is related to the development of own personality what allows putting forward higher and higher personal goals and achieve them.

The analysis of two stages’ cluster in the expansion of indicators of the relative significance of competence groups allowed marking out three homogenous clusters of respondents (Figures 4, 5).
Figure 5. Division of various groups’ respondents into clusters, which are marked out in the expansion of relative significance of competence (data summarized by the authors)

- Respondents of the first cluster (85, 35%) in general evaluate higher than average innovative competences, self-presentation competences, intercultural competences, but considerably lower than other respondents they evaluate personal competences and professional competences.
- In the second of the marked out clusters the respondents (102, 42%) in general evaluate higher than average personal competences and professional competences, but lower – self-presentation competences.
- Respondents of the third cluster (56, 23%) are characterised by high evaluation of communicative competences and low evaluation of innovative competence, intercultural competence.

Table 6
Descriptive statistics and results of comparison (ANOVA) for evaluation of real level of competences by students, lecturers and employers (data summarized by the authors)

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R) Personal competences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>3,70</td>
<td>0,479</td>
<td>2,44</td>
<td>4,78</td>
<td>0,006</td>
</tr>
<tr>
<td>Lecturers</td>
<td>4,03</td>
<td>0,558</td>
<td>2,89</td>
<td>5,00</td>
<td></td>
</tr>
<tr>
<td>Employers</td>
<td>3,81</td>
<td>0,592</td>
<td>2,67</td>
<td>4,78</td>
<td></td>
</tr>
<tr>
<td>(R) Professional competences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>3,32</td>
<td>0,720</td>
<td>1,33</td>
<td>5,33</td>
<td>0,001</td>
</tr>
<tr>
<td>Lecturers</td>
<td>3,83</td>
<td>0,528</td>
<td>2,33</td>
<td>4,67</td>
<td></td>
</tr>
<tr>
<td>Employers</td>
<td>3,96</td>
<td>0,679</td>
<td>2,33</td>
<td>5,00</td>
<td></td>
</tr>
<tr>
<td>(R) Innovative competences</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td>3,53</td>
<td>0,569</td>
<td>2,17</td>
<td>4,83</td>
<td>0,001</td>
</tr>
<tr>
<td>Lecturers</td>
<td>4,03</td>
<td>0,573</td>
<td>2,83</td>
<td>5,00</td>
<td></td>
</tr>
<tr>
<td>Employers</td>
<td>3,55</td>
<td>0,633</td>
<td>2,17</td>
<td>5,00</td>
<td>0,062</td>
</tr>
</tbody>
</table>
Comparative analysis of the real level of competences evaluations show (Table 6) that assessment does not change importantly only in respect of management competences, where it was offered to evaluate such competences as capacity to bear the responsibility for made decisions, capacity to demonstrate new, strategic idea synthesis and making strategic decisions, leading, ability to develop and manage projects, spirit of initiative and enterprise, capacity to motivate others in order to achieve a common goal, capacity to solve conflicts and diminish the differences ability to determine the values regarding the put forward goal, ability to evaluate the surrounding environment by objective considerations, by determining the directions of resource use and development opportunities, concern about quality, in the evaluations of other groups of competences there are differences.

Lecturers evaluate comparatively lower than students the real level in the group of social and communicative competences for such competences as ability to work in team and ability to communicate with a representative of other professions, but in the group of innovative competences lecturers to students evaluate comparatively higher the real level of competences for such competences as research skills, information processing skills using information technologies.

Employers in their turn higher than average evaluation give to professional competences including such competences as – basic knowledge in the professional sphere, deepened (specific) knowledge in one’s professional sphere, ability to solve problems independently and self-presentation competences involving such competences as ability to expound own ideas, to substantiate and convince, ability to maintain emotional stability in complicated situations. It speaks for the fact that employers all-in-all are satisfied with the current professional activity of their employees.

In the evaluation of the necessary level of competences according to groups of competences (Table 7) the opinion of students, lecturers and employers considerably differ only evaluating social and communicative competences. Students this group of competences assess as medium important. Employers in this group of competences in their employees want to see better developed such competences as ability to build up relationships with other people and capacity to work in a team with representatives of various spheres. Regarding the group of competences – innovative competences, their necessity is given the highest evaluation exactly by the employers. Respondents of this group note that in their employees they would like to see higher level of such competences as ability to use innovations...
and innovative technologies in practice, capacity to adapt to new conditions, openness to changes. The
lecturers note that the level which is acquired by students in the group of innovative competences for
such competence as research skills is higher than students actually need for effective work in
professional sphere.

Table 7

Descriptive statistics and results of comparison (ANOVA) for evaluation of the necessary level of
competences by students, lecturers and employers (data summarized by the authors)

<table>
<thead>
<tr>
<th>Competence Group</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
<th>p</th>
</tr>
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<tr>
<td>(V) Personal competences</td>
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<td></td>
<td></td>
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<td></td>
</tr>
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<td></td>
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<td>------</td>
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</table>

Students, lecturers and employers (Table 8) evaluate in the group of innovative competences as equally significant such competences as – capacity to use innovations and innovative technologies in practice, ability to create new ideas (to be creative), in the group of management competences – ability to bear responsibility for made decisions, capacity to evaluate the surrounding environment by objective considerations by determining the directions of resource use and development opportunities, concerns about quality, in the group of intercultural competences – knowledge of foreign languages, ability to work in an international environment. For students typical is average evaluation of competence groups’ significance. It can be due to the fact that a great part of students has not faced a professional activity.
yet, therefore they cannot decide which of the competences shall prove to be the most significant in the professional activity.

CONCLUSIONS

Nowadays a company structure has changed significantly, a persons’ work functions have improved – hence also the attitude towards a human, his/her development, orientation of values. A competent person is brought to the front as the most important condition of competitiveness. In the society of knowledge as a driving force of state development, creator of national wealth and the determinant factor of competitive capacity becomes a person as a creator and bearer, his/her competence, creativity, initiative and ability to create something new, to use knowledge efficiently in a continually changeable conditions, experience and access to the latest information, as well as innovations, especially in the spheres of highly advanced technologies.

An important aspect in the promotion of competitive capacity of graduates is defining the skills necessary in the labour market and improvement of education process for these skills acquisition. Since labour market demand develops and changes swiftly competences of employees were evaluated at the level of general competences. It is necessary to perform flexible transition from one stage into another to change spheres of employment and posts.

Comparing opinions of students, lecturers and employers there are considerable differences in the evaluations of competences. Students evaluate comparatively higher the following groups of competences – self-presentation competences, intercultural competences, whereas lecturers assess higher such groups of competences as innovative competences, social and communicative competences, and employers in their turn give higher evaluation to social and communicative competences and professional competences.

Employers want to see in their employees speaking of the group of social and communicative competences better developed such competences as ability to build up relationships with other people and capacity to work in a team with representatives of various spheres, in the group of innovative competences ability to use innovations and innovative technologies in practice, ability to adapt to new conditions, openness to changes. Lecturers note that the level which is acquired by students in the group of innovative competences for such competence as research skills is higher than students actually need for effective work in professional sphere. For students typical is average evaluation of competence groups’ significance. Thereby the results of survey and the analysis of the acquired data confirm the assumption of the authors that between the real and desired demand and supply in the sphere of competences the concerned groups have different opinions.

One of the activity directions how to achieve the training of students to comply with the requirements of labour market is improvement of study programs’ content and organization of the process pursuant to the results to be achieved, namely, study results planned within the qualification framework, in accordance with the established level of qualification. Previous experience indicates that the state regulation determining the involvement of employees in the evaluation of study process outcomes, for instance, in the process of higher education programs accreditation, is not sufficient. Employers should involve already in the education process planning, for example, in determining learning outcomes and harmonization with labour market requirements, as well as in study program improvement. Significant can be contribution of entrepreneurs by their participating in the study process with guest lectures, by consulting students in the final papers’ development process, as well as organizing practice or working places during summer period.
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PROFESSIONAL HIGHER EDUCATION IN THE REGION OF LATGALE: THE VIEW OF STUDENTS, UNIVERSITY LECTURERS AND EMPLOYERS
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Abstract

The paper deals with the theoretical aspects of the professional higher education and the situation of the professional higher education in Latvia. The authors, through a survey, in three target groups: students, university lecturers, employers have researched attitudes toward the professional higher education in one of the 5 regions of Latvia - in the region of Latgale. In the course of study, there is designed for the young professionals who acquire the professional higher education, their competency profile. It covers the combinations of the general professional competencies, self-efficient management competencies and specialized professional competencies.

Key words: professional higher education, students, university lecturers, employers, competencies, labour market, region of Latgale.

INTRODUCTION

Knowledge of economic theory shows that investment in human capital is efficient and return from it is beneficial for employees and employers, the region and the State (society) as a whole, regardless of the source of this investment. As the primary direction of investments, which increase capacity of human resources is an investment in education. In this context, it is important to ensure compliance of qualification of human resources and quality of education with a sustainable economic development.

Describing human resources in a given area, they are considered in quantitative and qualitative terms. Latvia has a relatively high proportion of students - the number of students in Latvia - 56.3 students per 1 000 inhabitants exceeds the average index in the EU - 27 (Latvijas regionu ekonomikas, 2013), which contributes to the formation of educated human resources at the quantitative level. However, in order to implement a growth model for Latvia: people first, one should evaluate quality of higher professional education and the quality of the human resources, and how to use it to increase the economic competitiveness of the regions of Latvia.

The aim of the study is to research attitude toward the professional higher education in one of the regions of Latvia – Latgale in the view of three target groups: students, university lecturers, employers, and, according to the current requirements of the labour market, to design a new competency profile for the young professional.

Assignments of the study:

- describe the theoretical aspects of the professional higher education and the situation in this sector in Latvia;
describe the methodology of the study;
- carry out analysis and interpretation of the data obtained through the survey;
- draw conclusions and make proposals.

Research methods – the monographic method, sociological research method (survey), statistically economic analysis, graphical method.

THE THEORETICAL ASPECTS OF THE PROFESSIONAL HIGHER EDUCATION AND DESCRIPTION OF THE SITUATION IN LATVIA

As already mentioned by the authors, education is the foundation for the development of the human capital. N. Bontis (2004) notes that educated people are not only specific to learn skills - their life becomes abundant. Education contributes to education: the most educated employees are looking for new ways to learn and reinvest their education (Barron, Berger & Black, 1999). At the individual level, the time spent in the educational activity, takes a significant portion of the total individual’s daily availability. The decision to invest in education means to connect the individual with society's values, rules of the social behaviour. In the long term, it has a positive effect on the economy, culture and personal benefits (Mayer & Harbison, 1965; Mingat & Tan, 1986). Investment in higher education promotes the preparation of professionals of a higher quality and an efficient work of highly qualified professionals is the most important factor in the economic growth (Aghios, 2008). The higher is the education level of the human resources, the easier it is for the human resources, in case of need, to train and retrain. This is due not only to the individual characteristics of the profession, such as persistence (it is necessary to obtain higher education as well), but, as noted by A. Rubanovskis (2008), it also provides a general qualification features, such as higher education gives the ability to analyse which in the job market is highly necessary.

I. Lapina, D. Aramina (2011) believe that a permanent improvement of the educational process is one of the main ways to develop science at maxim as, on the one hand, education prepares people to science (new scientists) who, in developing the science, encourage the development of new technologies, tools and equipment, which, in turn, improves productivity of certain economic sectors, and, on the other hand, the education system prepares professional people who know how to use these new achievements. V. Bikse (2011) notes that the role of the education system is growing in preparing go-ahead people, who are willing to risk, make effective decisions and taking the job, become self-employed, creating micro-businesses and favouring working in-house jobs.

In the sustainable development strategy of Latvia until the year 2030, there is indicated the need to avoid narrowed professional training programs stating that in the professional programmes in higher and vocational secondary education, in addition to the speciality chosen as priority should be given a reasonably good knowledge of the related professions, to be able to learn, if needed, another profession that is required by the labour market. In the section "Vision about Latvia for 2020 " Economic breakthrough – for the prosperity of each country’s inhabitant and the country, of the Latvian National Development Plan for 2014 -2020, the vision is set out that "Latvia has internationally competitive higher schools where work and qualified academic staff are evaluated at the international level. Higher education has become a hit in Latvian export service. The programs of training are provided in accordance with Latvian as the State language policy - mainly in Latvian and in one of the official languages of the European Union. Latvian higher school graduates are competitive for both the local market and abroad. Also, the number of graduates has significantly increased who continue their career.
in science in Latvia" ((Latvijas Nacionālais attīstības plāns..., 2013). In the action plan of implementation of higher education and science reform for 2013-2014, which aims to provide high-quality, internationally competitive and science-based higher education implemented by effectively managed institutions with consolidated resources, as one of the measures to achieve the aim is set forth-to increase compliance of programs of training with the needs of the national economy, increasing the role and motivation of the employers in the study process, including the provision of good practice. As the expected direct results and indicators of work, there is intended to: 1) develop proposals to increase the motivation of employers in the provision of quality practices (including personal income tax reductions for managers of practices, the inclusion of practice site provision expenses in the eligible expenses, not applying the personal income tax to trainees' pay, etc.), 2) ensure high-quality practices, resulting in improved compliance of the new professional to the labour market requirements. The Ministry of Education and Science and the Higher Education Council, in cooperation with the Employers' Confederation of Latvia, the Latvian Chamber of Commerce and Industry and sector associations are responsible for it (Augstākās izglītības un zinātnes reformu..., 2013).

Looking at the public employees by types of economic activities in Latvia and its regions in 2012 (Table 1), it can be seen that in terms of the provision of places of employment in the regions of Riga, Riga Suburbs and Zemgale, the most important industry is trade together with accommodation and food services (G, I), but in the regions of Vidzeme, Kurzeme and Latgale, the most jobs are provided in industry and energy industry (B-E). These industries also require prepared human resources of the relevant qualifications.

<table>
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<th>Planning region</th>
<th>(A) Agriculture forestry and fish farming</th>
<th>(B-E) Industry and Energy</th>
<th>(F) Construction</th>
<th>(G, I) Trade, accommodation and catering services</th>
<th>(H, J) Transport, storage, communication and postal services</th>
<th>(K-N) Financial, insurance, scientific, administrative services, operations with real estate</th>
<th>(O) Public administration and defence, compulsory social security</th>
<th>(P) Education</th>
<th>(Q) Health and social care</th>
<th>(R-U) Other types of economic activity</th>
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Table 1
The employed population by types of economic activities (NACE, Rev. 2) in the statistical regions in 2012 as % of total number of the employed people

(Authors, created by CSB data)
Higher schools and their branches in Latvia are concentrated in the major cities: Riga, Daugavpils, Liepaja, Rezekne, Valmiera and Ventspils. Kurzeme and Latgale regions, each has 2 higher education institutions, Zemgale and Vidzeme regions have one higher school each.

As it is presented in Figure 1, in the study year 2012/2013, the most part or 43% students study in the programs of the basic professional training or according to the International Standard Classification of Education (ISCED) acquire level 5 professional qualifications (Izglītības sistēmas raksturojums…, 2013), which means a certain industry professional’s highest qualification, which enables to independently analyse, decide, design and/or to plan, organise, manage, control, and/or carry out scientific research work in the specific sector. Usually, those with qualifications can also acquire the bachelor's professional degree in the specific field of the national economy. 8% of students take the programs of training for the professional master’s degree to acquire level 6 qualification. The master's degree entitles to take the doctoral programme, which lasts 3-4 years.
Figure 2. The students are awarded with the academic (scientific) degree or qualification in the academic year 2012/2013, %

(Compiled by the authors on the basis of the Report on the higher education in Latvia in 2012)

As it is presented in Figure 2, in the academic year 2012/2013, most of the graduates or 59% are awarded with the professional bachelor’s degree or qualification, with the professional master's degree - 12% of graduates.

The main results of the labour market study “The compliance of the programs of the professional and higher education to the requirements of the labour market” (2007) describe the Latvian professional and higher education as a break away from the labour market. As one of the key issues noted by employers is insufficient practical skills learned in the speciality; the practical skills of the employees with the higher education do not satisfy the employees in about 53% of the cases, with the vocational education or the vocational secondary education - in 65% of the cases. Objections of employers against the theoretical readiness of the graduates of the program of higher education are made in 11% of the cases, against the theoretical readiness of the employees with the vocational secondary education in – 21% of cases, against readiness of employees with the vocational education in – 37% of cases. This confirms that the Latvian educational establishments provide inadequate professional, especially practical skills. Also, if the educational program provides good practical skills in a certain speciality, currently, in the rapidly changing circumstances, skills quickly become obsolete and it is required to learn more practical skills. Often, it is noted that an academic degree graduates have insufficient practical skills, but the graduates with the professional education have better practical skills, but they have insufficient theoretical knowledge of the ongoing processes.

In 2009 and 2010, with worsening of solvency for the population, the number of students has decreased in cost studies. Currently, the number of students on the national budget has not changed in practice and in 2010 there was even a small increase, thanks to the possibility of using the EU structural funds to finance the studies of private higher education institutions. As it is indicated in the national conception of the Latvian higher education and higher school development for 2013-2020, which is prepared by the Council of Higher Education (2013), taking into account the solvency of the population and birth rate curves from the lowest point, in the closest 4-5 years, the total number of students will reduce. The student growth could resume by 2020, reaching 85-90 thousand students, when there will be a better demographic situation and increase in the solvency of the population. For implementation of the strategy
of the Latvian national reform programme “EU 2020”, the key challenges (barriers) are noted to increase
the proportion of the population in higher education in Latvia:

- as a result of the crisis, the solvency of people has lowered, reducing the number of students in
cost studies;
- programmes of training are fragmented and by decreasing the number of students, and the
resources available (reduced national budget funding, reduced academic staff salaries, own
revenue reduction), there is reason to believe that there is a threat to the quality of the studies
and the provision of critical mass;
- the programs of training in higher education establishments located in regions offer study
programmes little related to regional specifics and needs in the labour market in the specific
areas (Latvijas nacionālā reformu programma…, 2013).

The shortage of highly competent and motivated staff will limit innovation opportunities for
merchants – the merchants are missing educated, involved in business employees who could not only
perform certain tasks, but also devote time to productivity, learning and new technologies, new product
and service development.

DESCRIPTION OF THE METHODOLOGY OF THE STUDY

In the practical study, the authors prepared a survey, which consisted of two parts. In the first part, the
authors wanted to find out what is the attitude to the professional higher education in one of the regions
of Latvia – the region of Latgale. For the evaluation of the attitude, 3 target groups were selected:
students, university lecturers and employers. In order to measure the attitude to the professional higher
education, a survey was prepared, which offered to evaluate 17 indicators according to the bipolar scales
by highlighting view A and view B within the framework of the semantic differential from -3 to 3, where
-3- fully agree, 2- agree, 1- rather agree, 0- no view. The developed survey allows to measure the
attitude to education as a social setting. The second part of the survey was intended to construct a profile
of competencies of graduates, according to the current demand in the labour market.

The practical research of the author was carried out by interviewing students and university lecturers of
2 regional higher educational establishments: Daugavpils University and Rezekne University, and
employers in the region of Latgale.

Daugavpils University is the second largest classical state university in Latvia and the most important
educational and scientific centre of Latgale. Daugavpils University offers studies in 5 faculties: Science
and Mathematics, the Humanities, Education and Management, Music and Arts and Social Sciences.
3.1 thousand students are studying at the University in 61 programs of training with 210 members of
the academic staff (having their position through basic election), including 62% with doctoral degrees.
The students acquire knowledge through academic and professional higher education programmes of
training at the bachelor's and master's levels. The popularity of the University is growing through 8
doctoral programmes of training, for the development of the regions the major being - "Biology",
"Economy", "Education", "Solid State Physics" and "Mathematics". Studies are organized in full-time
and part-time distance form, in the stage of development is the e-learning course proposal. For the
purpose to more flexibly respond to changes in the labour market demand in the region of Latgale, the
University continually enhances the curricular content and forms of education, and extends the study
opportunities in different employment areas. It improves the existing and develops new interdisciplinary
graduate programs that will prepare professionals for a wider profile who will be capable to more
flexibly adapt to the changing socioeconomic environment and the labour market not only in Latvia but also in the world (Latvijas regionu ekonomikas ..., 2013).

**Rezekne University** is founded on the basis of the University of Latvia and Riga Technical University, but from the 1993 it is running as an independent public institution of higher education. It has four faculties: Faculty of Education and Design, Faculty of the Humanities and Legal Science, Faculty of Engineering, Faculty of Economics and Management. 2,3 thousand students take 43 programs of training. The studies take place at three levels: basic studies, highest level and doctoral programmes. For the provision of doctoral studies there it has established cooperation with other Latvian and foreign higher schools. The University implements studies in the full-time and part-time distance form, the e-learning form of courses is being developed. The lifelong learning centre promotes the principle of lifelong learning performance in society, ensuring the continuation of previously acquired education and continuation of education, according to the requirements of the labour market and the private interest. The interested persons are provided with continuing education opportunities each year, offering an average of 20 to 30 professional development and continuing education courses and programs (Latvijas regionu ekonomikas ..., 2013).

As a result, 251 respondents were interviewed -182 (72; 5%) Daugavpils and Rezekne University graduate students, including 132 (72, 5%) professional bachelor program students and 50 (27.5%) professional master program students (10%); 25 university lecturers, who are also directors of the programs of training (selected experts); 44 (17.5%) employers (selected experts).

**RESULTS AND DISCUSSION**

For the statistical analysis of the research data and presentation of the results, the programme “Statistical Package for the Social Sciences”, version 19.0 for Windows, is used in the study. Having studied the square diagrams that reflect the respondent indicator vision, that express the attitude to the professional higher education in the region of Latgale (Figure 3), it is evident that the lowest evaluation of the respondents get such indicators as the prestige of higher professional education, the material welfare guarantees and compliance with financial contributions of the individual. A quarter of the respondents evaluate them negatively. The authors explain it by the high number of students enrolled in the professional higher education programs, so this education is considered as a necessity of life, not a prestigious thing. In itself, higher education is not a guarantee of material welfare as the material well-being of people depends on both the individual's desires and capability to implement themselves in the professional activity to increase the level of personal well-being also from the socioeconomic situation in the country. The highest evaluation get such indicators as increasing individual competitiveness, social relevance and usefulness in life. The higher education opens up more opportunities in the labour market, it also helps to pick up new skills more quickly if the need arises, and the competitiveness of individuals in the labour market is growing. The respondents value the professional higher education as a social benefit, because the resulting higher education reduces social inequality, the society will raise the level of competence. The respondents evaluate life as useful, because the return on education the individual gets in the long term, and it is an important contribution to the development of the human personality. The greatest variation has indicators on education and costs. 50% views on these matters vary in the range from -1 to 2. The authors explain it by the subjective judgments of the individuals, as they perceive the process of training as coming easy or with great effort. Similarly, in evaluating the indicator, whether the professional higher education is cheap or expensive, the evaluation is subjective and can be affected by two factors: those respondents, whose have acquired budgeted education, can
evaluate it as cheap, while for the respondents that have acquired education not for free, the evaluation may vary depending on the personal financial solvency.

Figure 3. **Square diagrams that reflect the respondent indicator vision that express the attitude to the professional higher education in the region of Latgale** (Data collected by the authors)

A comparison of the aggregated indices, which is obtained as a result of summing of indicators (Figure 4), leads to the conclusion that students have the most positive attitude towards the professional higher education. So, the group of respondents, which is located in the education process, the university
lecturers and employers have a more reserved attitude. However, the observed differences are not statistically significant.

Figure 4. The mean value of the aggregated index, which represents the student, university lecturer and employer attitudes to the professional higher education (Data collected by the authors)

Most of the indicators are not sensitive to the status of the respondents. The exceptions are only indicators: prestige of the professional higher education, usefulness in life and guarantees of the material well-being (Figure 5).

Figure 5. Indicators that describe the attitude to the professional higher education through groups of the respondents and the indicator sensitivity evaluation (Data collected by the authors)

All the three indicators are the highest evaluated by the students. The university lecturers tend to agree that the professional higher education is prestigious and agree that it is useful in life. In the evaluation of higher education as a guarantee of the material welfare, the views coincide with the views of employers, in which both groups of the respondents disagree. The employers agree with the view that the professional higher education is prestigious. This suggests that the employers highly value the level of education of their staff.
Figure 6. Square diagrams that reflect the bachelor and master program student attitudes to the professional higher education (Data collected by the authors)

Virtually, all the indicators that describe the attitudes to the professional higher education, are sensitive to the level of the program, which the students acquire (Figure 6). The master students evaluate the indicators lower than the bachelor programme students. Such indicator as a match to the individual financial contributions is evaluated as the lowest by the master students. The highest are estimated the indicators for social efficiency and increasing the competitiveness of the individual.

The students, who take the basic programs of training, at lower evaluate indicators at the level of easiness of acquiring an education, claiming that rather it is not easy and the costs of acquiring education, the students evaluate as high. At higher, like the master students, the students, taking the basic program of training, evaluate the social usefulness, increasing the individual's competitiveness and usefulness in life.
The structure of the indicator factor and the factor loads, which describes the attitude to the professional higher education (Data collected by the authors)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does not meet the requirements of the labour market/Comply with the requirements of the labour market</td>
<td>0.776</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not give adequate investment in the development of the necessary skills/Sufficient investment in the development of the necessary skills</td>
<td>0.762</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obsolete/Modern</td>
<td>0.741</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low quality/High quality</td>
<td>0.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not comply with the individual's personal investment /Complies with the individual's investment</td>
<td>0.730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not correspond to the individual financial investment/Corresponds the individual's financial investment</td>
<td>0.642</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not guarantee the material well-being/Guarantees the material well-being</td>
<td>0.662</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not increase the opportunities in the labour market/Increases the opportunities in the labour market</td>
<td>0.653</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No prestige/Prestige</td>
<td>0.564</td>
<td>0.595</td>
<td></td>
</tr>
<tr>
<td>Not Interesting/Interesting</td>
<td>0.610</td>
<td>0.550</td>
<td></td>
</tr>
<tr>
<td>Does not increase the competitiveness of the individual/Increases the competitiveness of the individual</td>
<td>0.602</td>
<td>0.506</td>
<td></td>
</tr>
<tr>
<td>Not useful in life/Useful in life</td>
<td></td>
<td></td>
<td>0.804</td>
</tr>
<tr>
<td>Socially not useful/Socially useful</td>
<td></td>
<td></td>
<td>0.733</td>
</tr>
<tr>
<td>Not up to date/Up to date</td>
<td></td>
<td></td>
<td>0.718</td>
</tr>
<tr>
<td>Difficult to obtain/Easily obtainable</td>
<td></td>
<td></td>
<td>0.763</td>
</tr>
<tr>
<td>Cheap/Expensive</td>
<td></td>
<td></td>
<td>0.733</td>
</tr>
<tr>
<td>Complicates life/Makes your life easier</td>
<td>0.440</td>
<td>0.535</td>
<td></td>
</tr>
</tbody>
</table>

The analysis of the factors in the indicator space, which describe attitudes towards education, allowed to find the three factor structure of this phenomenon (Table 2). Kaiser - Mayer - Olkin Measure of Sampling Adequacy-KMO selection adequacy criterion is equal to 0.904, which points to the application of factor analysis efficiency for the analysis of the structure of the phenomenon. The highlighted factors can be interpreted as the quality of education, its topicality and price, that one must pay for education, evaluation. The total percentage of the variance, which is explained by the highlighted factors, is 59.6%.
The greatest variance percentage (31.4%) is explained by the quality factor. The topicality factor is explained by the total percentage of the variance 18.8%, but the price factor - 9.4%.

The two-phased cluster analysis on the quality and topicality factors plane allowed to distinguish three homogeneous clusters of the respondents (Figure 7):

The KA + - cluster contains 37 (15%) respondents who are below the average, in general, evaluate the topicality of education;

The KA - + cluster contains 52 (21%) respondents, who below the average, in general, evaluate the quality of education;

KA ++ this cluster respondents evaluate both the quality of education, and topicality not lower of the average, 158 (64%).

Figure 7. The average values of the factors of the cluster respondents which vary with a different professional higher education system’s vision (Data collected by the authors)

In the course of the study, the respondents were asked to design a new professional competency profile, evaluating separate competencies within the bipolar scale, which are two different viewpoints to the profile of the professional higher education for the graduate: View A: a well-prepared professional; View B: widely educated people who aspire to a career growth (Figure 8).

<table>
<thead>
<tr>
<th>View A</th>
<th>View B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional education is requested</td>
<td>General education is requested</td>
</tr>
<tr>
<td>The ability to practically apply the acquired knowledge and skills is requested</td>
<td>The ability to practically apply the acquired theoretical knowledge and skills is requested</td>
</tr>
<tr>
<td>Full training is required to perform a specific job in the acquired profession</td>
<td>Willingness to learn new skills in the profession is requested</td>
</tr>
<tr>
<td>The skill to work within standard technological processes is requested</td>
<td>The skill to work within innovative technological processes is requested</td>
</tr>
<tr>
<td>The ability to execute the decisions taken is requested</td>
<td>The ability to make decisions is requested</td>
</tr>
<tr>
<td>The ability to evaluate risks and avoid them is requested</td>
<td>Willingness to take risks and to justify the risk is requested</td>
</tr>
</tbody>
</table>
As it is presented in Figure 8, according to the answers given by the respondents, the new specialist competency profile consists of a combination of the A and B views. So, in general, the respondents are of the view that the new professionals would need to be with a professional education being able to apply the acquired professional knowledge and skills in practice and willing to learn new skills in their profession. They must be able to work within the framework of innovative technological processes, make decisions, evaluate risks, and avoid them. The new professional must be able to work in a team and take responsibility for teamwork, and be able to adapt to different situations and find new solutions to situations in their professional activities. The new professional is expected to have a desire to be an employer. The tendency to improve within the rank and occupy the new, higher posts is welcomed. The skills are required to work under stress and lack of time, the ability to self-determine the work task priorities are requested. The ability to work in a professional team and choose a conscious interpersonal
interaction strategy, and the ability to make independent professional activity based on normative and legal norms are requested.

### Table 3

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>The skill to work within standard technological processes is requested/</td>
<td>0.703</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The skill to work within innovative technological processes is</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The skill to work standard hours (working time, discipline) is requested/</td>
<td>0.694</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The skill to work in stress and lack of time conditions (the skill to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>determine for yourself the work task priorities) is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to work in a professional team is requested/ The ability to</td>
<td>0.621</td>
<td></td>
<td></td>
</tr>
<tr>
<td>work in an interdisciplinary professional team is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to execute the decisions taken is requested/ The ability to</td>
<td>0.621</td>
<td></td>
<td></td>
</tr>
<tr>
<td>make decisions is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to evaluate risks and avoid them is requested/ Willingness</td>
<td>0.570</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to take risks and to justify the risk is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to use interpersonal interaction strategy is requested/ The</td>
<td>0.527</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ability to choose a conscious interpersonal interaction strategy is</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full training is required to perform a specific job in the acquired</td>
<td>0.495</td>
<td>0.429</td>
<td></td>
</tr>
<tr>
<td>profession / Willingness to learn new skills in the profession is</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to work independently and take responsibility for yourself is</td>
<td>0.411</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requested/ The ability to work in a team and take responsibility for</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>teamwork is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The desire to work as an employee is requested/ The desire to be an</td>
<td>0.769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employer is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A tendency to improve within the position is requested/ A tendency to</td>
<td>0.749</td>
<td></td>
<td></td>
</tr>
<tr>
<td>take new, top positions is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to adapt to different situations in the professional activity</td>
<td>0.541</td>
<td></td>
<td></td>
</tr>
<tr>
<td>is requested/ The ability to find new solutions to different situations in</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the professional activity is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to use normative and legal documents in the professional</td>
<td>0.448</td>
<td></td>
<td></td>
</tr>
<tr>
<td>activity is requested/ The ability to make independent professional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>activity based on norms and legal norms is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The ability to practically apply the acquired knowledge and skills is</td>
<td>0.777</td>
<td></td>
<td></td>
</tr>
<tr>
<td>requested/ The ability to practically apply the acquired theoretical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>knowledge and skills is requested.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional education is requested/ General education is requested.</td>
<td>0.744</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of the factors in space, which describe the new professional, has made it possible to clarify the three factor structure of this phenomenon (Table 3). Kaiser-Meyer-Olkin Measure of Sampling
Adequacy – KMO selection adequacy criterion is equal to 0.847, which points to the application of factor analysis efficiency for the analysis of the structure of the phenomenon. The highlighted factors can be interpreted as:

- General professional competencies;
- Effective self-management competencies;
- Specialized professional competencies.

The total percentage of the variance, which is explained by the factors highlighted, is 49.9%. The greatest variance percent (22.2%) is explained by the first of the highlighted factors standing out. The second factor explains the total variances 14.5%, but the third factor 13.2%. Two-phase cluster analysis in the space of the highlighted factors made it possible to divide the respondents with the professional competencies of the new professional in four clusters (Figure 9).

The first cluster respondents (78 respondents, accounting for 31.5% of the totality being studied) - higher than the mean totality, and positively evaluate self–efficient management competencies. This means that in the evaluation of competencies for this group, their view is closer to view B than for the rest of the respondents and they believe that with the new professional, the desire to be an employer is requested; a tendency to take new, higher positions is requested; the ability to find new solutions to different situations in his professional activity is requested; the ability to make independent professional activity based on normative and legal norms is requested. However, in the case of specialized professional competence, these respondents are of view А, so they believe that the professional education of the new professional and the ability to practically apply the knowledge gained are requested.

The respondents of the second cluster (37, 14.9 %), according to all the factors, adhere to the profile of view B. The respondents of the third cluster (69, 27.8%), according to all the highlighted factors, in evaluating the new professional adhere to view A. The respondents of the fourth cluster (64, 25.8 %), closer than the others, according to the factor of the specialized professional competences adhere to view A, but according to two other factors, take a position that is closer to the neutral one.
CONCLUSIONS

Higher schools play an important role in reducing disproportion of the regional development. They are the higher educational institutions in the regions which ensure the availability of higher education there, create the proposal of the education programs according to the structure of employment, resulting in a reduction of the territorial socioeconomic differences among the regions.

Educational institutions, in cooperation with the region's entrepreneurs, should follow the local and global trends in the national economy, in order to be able to anticipate and provide such the content and format of studies which promotes both individual and organization competitiveness and sustainable development of the region. Only the continuous cooperation between the educational system and the labour market can ensure the relevance of education to the labour market. The compliance cannot be provided by only one qualification for the graduate of the education program once in life. The compliance can be provided by a system which, in addition to the education program, includes the provision of updating related to it and exchange opportunities throughout their lives.

In the content of the professional higher education, not only knowledge and skills are essential, but also attitudes toward their education, attitudes toward work and attitudes to their career. The motivation to get the higher education, constantly improving competences necessary for life and work, becomes an important factor that enables a successful acquisition of knowledge and skills, attitudes, and continuous renewal of them in the study process.

It is vital for the students to promote responsibility for the invested means and motivation to set higher requirements for themselves and the study process, which will improve the quality of education, increase the efficiency of the use of resources. In the development of the higher education, account should be taken of the new dynamic development of societal factors, when from the new specialist is expected both the ability to be a professional in his/her field and also be a widely educated personality who aspires to careers. The mission of the higher schools is to widen the level of the general knowledge and understanding, but for employers, specific skills and competencies are important. In the process of the professional higher education, it is important to strike a balance between the knowledge and skills in building competencies of the new professional.

REFERENCES


THE BALTIC STATES COMPANIES WORKING EFFICIENCY BEFORE AND AFTER THE ECONOMIC CRISIS
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Abstract
Goal of this article is to analyse the working efficiency, or labour productivity of Baltic States companies, and to compare them on the European Union (EU) level. Industry, construction, trade and transport in Baltic States have been viewed separately. On labour productivity the company and its relationship to labour costs is directly dependent on the country's competitiveness. Wages make up the main part of labour costs.

Labour market problems in Baltic and Eastern European countries have become more and more important. When the EU labour markets opened, some EU countries were forced to face the problem of partial workforce drain to richer countries with higher wages. In addition, on the one hand, Central and East European countries have quite high unemployment rates, and on the other, many vacant jobs – there is a lack of qualified workforce. Low salaries, among other reasons, force many people to go to work in rich countries, where wages are several times higher.

A number of proposals to increase labour productivity for both workers and entrepreneurs have been listed in the summary.

Key words: Baltic States, workforce, working efficiency, labour productivity, suggestions.

INTRODUCTION
Working efficiency in Baltic countries (Estonia, Latvia, and Lithuania) has been analysed. The main branches of the Baltic States national economy in connection to the economic crisis have been analysed. Four major sectors of the economy with the greatest gross domestic product and largest number of employees will be observed: industry, construction, trade and transportation. The situations before the crisis, during the crisis and after the crisis will be viewed.

The growth of the entire economy, measured using gross domestic product (GDP), will be viewed as background. The main emphasis is still on the three Baltic States, and on Estonian business in more detail.

1. METHODOLOGY
The techniques and labour market survey definitions used by the authors have been specified in Eurostat (Methodological Notes. EU-LFS) [Methodological Notes].
Productivity is measured by output per worker or per hour. Labour productivity is defined as GDP per hour worked. The measures of labour productivity are presented as indices and as rates of change.

Labour productivity per hour worked is calculated as real output per unit of labour input (measured by the total number of hours worked). Measuring labour productivity per hour worked provides a better picture of productivity developments in the economy than labour productivity per person employed, as it eliminates differences in the full time/part time composition of the workforce across countries and years. [Code: tsdec310]

Labour productivity per person employed (on the basis of value added) – indicates how much value added is generated on average per person employed (is calculated as value added divided by the number of persons employed). [Formulas]

ULC (unit labour cost) is defined as a relation between labour costs and labour productivity. If the productivity is growing faster than wages, the ULC decreases, which means that competitiveness of the state costs increases and vice versa. [Economic (2011)]

**Formulas of productivity measures** [Formulas]

<table>
<thead>
<tr>
<th>Productivity measures by net sales</th>
<th>Productivity measures by value added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity of labour (thousand euro)</td>
<td>( \frac{\text{net sales} + \text{subsidies}}{\text{number of persons employed}} )</td>
</tr>
<tr>
<td>Productivity per hour (euro)</td>
<td>( \frac{\text{net sales} + \text{subsidies}}{\text{number of hours worked by employees}} )</td>
</tr>
</tbody>
</table>

Workforce productivity measurement in more detail the theoretical basis are given of the authors’ earliest publications. [Tanning b, d, e]

2. **ANALYSIS**

**GDP** is an indicator for a national economic situation and a measure of the economic activity. It reflects the total value of all goods and services produced. Expressing GDP in PPS (purchasing power standards) eliminates differences in price levels between countries, and calculations on a per head basis allows for the comparison of economies significantly different in absolute size. [Methodology]

2. 1 **Gross domestic product growth rate**

**Economic growth** is defined as a production increase of an output of a production process. In order to calculate GDP growth rate in constant prices, GDP in current prices is converted to the prices of the previous year and changes in volume are determined based on the level of the reference year. The calculation of the annual growth rate of GDP volume is intended to allow comparisons of the dynamics of economic development both over time and between economies of different sizes. For measuring the growth rate of GDP in terms of volumes, the GDP at current prices are valued in the prices of the previous year and the thus computed volume changes are imposed on the level of a reference year. Price
changes therefore do not affect the growth rate of GDP. Accordingly, price movements will not inflate the growth rate. [Code: tec00115]

Real GDP growth rate, percentage change during the previous year in 2011: EU 27 = 1.5%; USA = 1.8%; Germany = 3.0%, and Sweden = 3.9%. [Code: tec00115]

Note: f - forecast

Figure 1. Real GDP growth rate – volume. Percentage change during the previous year. [Code: tec00115]

Source: authors illustration

The trend line shows the cyclical development of the Estonian economy (GDP). In addition to the economic decline during the years 2008 – 2009, there was also a decline in 1999. If an annual real GDP increment of more than 10% can be considered excellent, then the result in 2009 (14.1%) was one of the largest in the world.

The development of the Estonian economy before and after the crisis was one of the fastest in the EC. Yet, the crisis led to a very deep recession, which was one of the greatest in the world, as well as in the EC, and lasted for nine quarters. Thus, the country covered two extremes. On the other hand, it also shows that the reforms carried out in the past were successful and established a base that enabled exiting the crisis successfully. In particular, this meant creating favourable conditions for business. Again, GDP growth in 2011 and also 2012 are highest in the EC.
Figure 2. Changes of Gross Domestic Product in the Baltic States, at constant prices, % of the corresponding period of the previous year [Press news 07.12.2012]

Source: Central Statistical Bureau of Latvia and authors illustration

The source data of Latvia is attached Lithuania IVQ 2012 data. Their raw data the authors have made a summary figure. The figure shows that the Baltic countries are from 2010th end successfully outgoing from economic crisis. Quarterly analysis provides a more accurate picture. In 2011th was Estonia and in 2012th Latvian economy (GDP) fastest development in the Baltic countries as well as among all EU-27 countries. Below we analyze the main causes.

2. 2 Gross domestic product per capita and per person employed

**GDP per capita** in constant prices constant prices GDP is found and the ratio of the average population. Often used in constant prices GDP as an indicator of the wealth of nations, as it reflects the average real income in this country. However, the tool does not provide a complete overview of economic well-being. For example, GDP does not reflect much of the unpaid work in households, nor does it take into account negative effects of economic activities, such as damage to the environment. GDP per capita in constant prices is based on rounded figures. [Code: tsdec100]

GDP per capita (PPP) is an important indicator of a state’s standard of living, which takes into account price level differences. The figure shows that the economy was the highest during the years 2007 - 2008. A larger or smaller recession took place in 2009, which is called the crisis year. In the following years economy grew.
Between 1995 and 2007, GDP per capita in constant prices in Estonia increased by 2.48 times, by 2.31 times in Lithuania and 2.67 in Latvia. The economic crisis significantly brought down the levels and in 2011, Lithuania was the only country that managed to exceed pre-crisis levels, in fact, Estonia and Latvia were also short of the level of the year 2006.

As a rule, an increase of over 6%, in 2003 and 2007 = 11.2%. In 1999 was outage (-0.3%) and in 2009 a large decline (-14.0%). 2012th GDP per capita grew by 4.85%, it is, more than the total GDP (3.6%). GDP of Lithuania per capita rose from 1995 to 2012 in euro 7.6 and in U.S. dollars 7.5 times. In 1995 was GDP per capita 1434 EUR or 1854 USD; in 2008 was the dollar record level: 14 888 and in 2012 the euro 10 875 and LTL 37 551 record level.
GDP per person employed is intended to give an overall impression of the productivity of national economies expressed in relation to the EU-27 average. The volume index of GDP per capita in PPS is expressed in relation to the EU-27 average set to equal 100. If the index of a country is higher than 100, this country's level of GDP per head is higher than the EU average and vice versa. Basic figures are expressed in PPS, i.e. a common currency that eliminates the differences in price levels between countries allowing meaningful volume comparisons of GDP between countries. The index, calculated from PPS figures and expressed with respect to EU27 = 100, is intended for cross-country comparisons rather than for temporal comparisons.” [Code: tec00114]

Table 1. Labour productivity per employed person. Index EU-27 = 100. [Code: tec00116]

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>1997</th>
<th>1999</th>
<th>2001</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
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<td>43.5</td>
<td>48.4</td>
<td>55.0</td>
<td>57.7</td>
<td>60.8</td>
<td>62.4</td>
<td>66.7</td>
<td>65.8</td>
<td>65.5</td>
<td>69.3</td>
<td>67.6</td>
</tr>
<tr>
<td>Latvia</td>
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<td>35.7</td>
<td>38.3</td>
<td>41.6</td>
<td>44.2</td>
<td>45.9</td>
<td>47.8</td>
<td>48.9</td>
<td>51.4</td>
<td>51.6</td>
<td>52.8</td>
<td>54.8</td>
<td>62.7</td>
</tr>
<tr>
<td>Lithuania</td>
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<td>38.6</td>
<td>40.6</td>
<td>47.4</td>
<td>52.6</td>
<td>53.9</td>
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<td>59.6</td>
<td>62.1</td>
<td>57.6</td>
<td>62.5</td>
<td>64.9</td>
</tr>
</tbody>
</table>

Figure 5. Productivity growth in Estonia (EU=100), 1995-2011 [Code: tec00116; Code: tec00117]

Source: authors illustration

In Estonia yield per worker, i.e. productivity grew 2.0 times during the period under examination; however, it came to a pause during the economic crisis.

In contrast, in 2010 in Latvia, yield per one worker was 54.6% and 62.3% in Lithuania, similar to the EU-27 average. The indicator was highest among EU member states in Luxembourg (169.9), Ireland (136.9) and France (115.8) and lowest in Bulgaria (41.3) and Romania (48.8). Productivity was 1.5 times higher than the EU average in Norway (150.7) and the USA (143.5).

One working hour productivity displays a similar trend, having been highest in Luxembourg 187.1. Productivity in Estonia only amounts to 61.0%.
However, the prevailing trend is that regardless of growth in productivity elsewhere, the indicator rises noticeably quicker in Estonia and also other new EU accessions, than in veteran and wealthy EU-15 countries.

When analysing productivity in EU-27 (added value produced by one worker) by sectors of the economy and the size of companies, one cannot draw an equipollent (equal in force or effect) conclusion regarding productivity and the number of workers engaged in the company. It is conditioned by the particular sector of the economy. For instance, productivity among energy and water management companies is highest in small firms with up to 9 persons on payroll. On the other hand, for companies active in the lease of movable property, accommodation (housing) companies, and among all the sectors of the economy taken together as an entity, productivity is highest in big firms that employ 250 or more workers. Highest productivity among textile and habiliment (articles of clothing) firms can be noted in companies with 10 - 49 workers; the same can be said for timber companies with 50 – 249 workers [Code: tin00054].

A more detailed analysis of the productivity indicators of Estonian companies and the labour expenses in current prices, i.e. the predominant share constituted by salaries, is brought below.

In Estonia, productivity differs little for companies in the size of up to 249 workers. In 2003 and 2007 firms with 50 –99 workers boasted the largest productivity; in 2005 it was companies with up to 9 workers and for the rest of the surveyed period, companies with 100 – 249 workers dominated. Invariably, large companies with smaller productivity had 250 and more workers. This can be accounted for by the fact that smaller companies have larger flexibility in management, a smaller number of ancillary personnel and also because the workers of small companies are more likely to be “jacks of all trades” than in big companies. In big firms productivity is sapped, as a general rule, by large overheads.

Estonian labour productivity growth in 2010 was 4.6% and -1.7% in 2011.

Table 2. Labour productivity. Euro per hour worked. [Code: tsdec310]

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</tr>
</thead>
<tbody>
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<td>:</td>
<td>:</td>
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<td>8.7</td>
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<td>10.3</td>
<td>10.0</td>
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<td>10.9</td>
<td>10.8</td>
</tr>
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<td>:</td>
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<td>4.7</td>
<td>5.5</td>
<td>5.9</td>
<td>6.3</td>
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<td>6.7</td>
<td>6.6</td>
<td>6.9</td>
<td>7.8</td>
</tr>
<tr>
<td>Lithuania</td>
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<td>5.3</td>
<td>5.6</td>
<td>6.5</td>
<td>7.5</td>
<td>7.7</td>
<td>8.2</td>
<td>8.7</td>
<td>8.8</td>
<td>8.3</td>
<td>8.7</td>
<td>9.2</td>
</tr>
</tbody>
</table>

In Norway, the indicator for euro per hour worked has grown from 49.3 thousand to 68.9 thousand during the years 1990 – 2011, from 29.8 to 44.4 in Sweden, from 25.7 to 40.0 in Finland, from 37.4 to 48.9 in Denmark, from 33.4 to 45.4 in France, from 31.2 to 42.3 in Germany, from 29.5 to 41.5 in the United States; and during the period from 1995 – 2011 from 25.3 to 31.9 in the EU (27 countries).

In 2011 Norway (68 900 EUR) and Luxembourg (60 000 EUR) have highest productivity, euro per hour worked, in Europe and also globally. EU 27 was 31 900 EUR. [Code: tsdec310]
Figure 6. States with lower productivity, euro per hour worked, < EL=100, 2011 [Code: tsdec310]

Source: authors illustration

Table 3. Labour productivity per hour worked. Index, 2005=100 [Code: tec00117]

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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</thead>
<tbody>
<tr>
<td>EU (27 countries)</td>
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<td>103.6</td>
<td>103.1</td>
<td>101.7</td>
<td>103.9</td>
<td>105.3</td>
</tr>
<tr>
<td>Estonia</td>
<td>105.0</td>
<td>112.1</td>
<td>108.9</td>
<td>111.7</td>
<td>118.2</td>
<td>116.9</td>
</tr>
<tr>
<td>Latvia</td>
<td>106.9</td>
<td>114.6</td>
<td>114.7</td>
<td>111.9</td>
<td>117.3</td>
<td>133.6</td>
</tr>
<tr>
<td>Lithuania</td>
<td>106.7</td>
<td>112.8</td>
<td>115.0</td>
<td>107.5</td>
<td>113.9</td>
<td>119.8</td>
</tr>
</tbody>
</table>

Compared to 2005, labour productivity per hour in all 10 of the new post-socialist EU countries has increased at a more rapid pace than the EU 27 average. Ireland had the greatest increase of the old EU member states (117.3) and Latvia among the new members (133.6). Hungary had the smallest growth (104.6) among new members, which was even lower than the EU 27 average. The level of Estonia among the new member states was average.

Table 4. Labour productivity per hour worked. Percentage change over previous year [Code: tsdec310]

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</tr>
</thead>
<tbody>
<tr>
<td>EU (27 countries)</td>
<td>1.8</td>
<td>1.7</td>
<td>1.5</td>
<td>1.7</td>
<td>1.2</td>
<td>2.1</td>
<td>1.4</td>
<td>-0.5</td>
<td>-1.4</td>
<td>2.1</td>
<td>1.4</td>
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<tr>
<td>Estonia</td>
<td>5.9</td>
<td>5.0</td>
<td>6.1</td>
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<td>6.0</td>
<td>5.0</td>
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<td>-2.8</td>
<td>2.5</td>
<td>5.8</td>
<td>-1.1</td>
</tr>
<tr>
<td>Latvia</td>
<td>6.5</td>
<td>6.3</td>
<td>6.2</td>
<td>9.3</td>
<td>6.6</td>
<td>6.9</td>
<td>7.2</td>
<td>0.1</td>
<td>-2.4</td>
<td>4.8</td>
<td>13.8</td>
</tr>
<tr>
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<td>4.8</td>
<td>8.9</td>
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<td>1.7</td>
<td>6.7</td>
<td>5.7</td>
<td>1.9</td>
<td>-6.5</td>
<td>5.9</td>
<td>5.2</td>
</tr>
</tbody>
</table>
Labour productivity grew for all countries until 2008. In 2008 some countries, including Estonia (-2.8), experienced a decline. In 2009, all countries, except Estonia and Poland were experiencing a decline. In 2011 hourly labour productivity only decreased in Estonia compared to the previous year. The greatest productivity growth in 2011\textsuperscript{th} was of Latvia (+13.8%).

Labour productivity in Lithuania by major industries will be considered in more detail below.

- **Total** All branches
- **(C) Manufacturing**
- **(F) Construction**
- **(G) Wholesale and retail trade; repair of motor vehicles and motorcycles**
- **(H) Transportation and storage**

### Table 5. Gross value added per actual hour worked, at current prices of Lithuania, LTL [Code: M2010301]

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</thead>
<tbody>
<tr>
<td>Total</td>
<td>15.8</td>
<td>17.6</td>
<td>18.5</td>
<td>20.1</td>
<td>22.1</td>
<td>24.0</td>
<td>27.2</td>
<td>31.0</td>
<td>34.7</td>
<td>31.5</td>
<td>33.9</td>
<td>37.6</td>
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<tr>
<td>C</td>
<td>16.8</td>
<td>18.6</td>
<td>18.1</td>
<td>20.3</td>
<td>24.3</td>
<td>26.7</td>
<td>28.7</td>
<td>30.6</td>
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<td>33.0</td>
<td>40.7</td>
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<td>F</td>
<td>14.8</td>
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<td>16.5</td>
<td>17.4</td>
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<td>G</td>
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<td>53.3</td>
<td>49.0</td>
<td>55.9</td>
<td>55.8</td>
</tr>
</tbody>
</table>

Note: 1 LTL = 0.2896 EUR = 0.4029 USD (2011)

![Figure 7. Gross value added per actual hour worked of Lithuania, LTL. [Code: M2010301]](source: authors illustration)
Table 6. Gross value added per one employed person, at current prices, LTL thousand [Code: M2010301]

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Total</td>
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<td>69.8</td>
</tr>
<tr>
<td>C</td>
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<td>34.5</td>
<td>37.9</td>
<td>46.7</td>
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</table>

Figure 8. Gross value added per one employed person of Lithuania, LTL thousand [Code: M2010301]

Source: authors illustration

Figure 9. Indicator per capita and per person employed of Latvia, lats [Code: IKG01]

Source: authors illustration
Table 7. Gross domestic product per capita and per employed person from production approach by quarters, seasonally unadjusted (in lats). Chain-linked reference year 2000 [Code: IK02]

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<td>804</td>
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<td>903</td>
</tr>
<tr>
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<td>594</td>
<td>648</td>
<td>707</td>
<td>807</td>
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<td>1074</td>
<td>979</td>
<td>838</td>
<td>880</td>
<td>947</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>I Q</td>
<td>1,121</td>
<td>1,233</td>
<td>1,298</td>
<td>1,410</td>
<td>1,464</td>
<td>1,593</td>
<td>1,711</td>
<td>1,679</td>
<td>1,493</td>
<td>1,609</td>
<td>1,823</td>
<td>1,915</td>
</tr>
<tr>
<td>II Q</td>
<td>1,242</td>
<td>1,401</td>
<td>1,473</td>
<td>1,574</td>
<td>1,682</td>
<td>1,805</td>
<td>1,922</td>
<td>1,848</td>
<td>1,734</td>
<td>1,784</td>
<td>2,048</td>
<td>2,109</td>
</tr>
<tr>
<td>III Q</td>
<td>1,266</td>
<td>1,363</td>
<td>1,452</td>
<td>1,562</td>
<td>1,738</td>
<td>1,790</td>
<td>1,941</td>
<td>1,846</td>
<td>1,814</td>
<td>1,869</td>
<td>2,177</td>
<td>2,214</td>
</tr>
<tr>
<td>IV Q</td>
<td>1,382</td>
<td>1,530</td>
<td>1,617</td>
<td>1,734</td>
<td>1,919</td>
<td>2,018</td>
<td>2,049</td>
<td>1,949</td>
<td>1,919</td>
<td>1,942</td>
<td>2,221</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: 1 lat (LVL) = 1.4225 EUR = 0.5449 USD (4th quarter, 2011)

Source: authors illustration
Figure 11. Per employed person 3rd quarter [Code: IK02]

Source: authors illustration

Table 8. Gross domestic product by kind of activity (NACE Rev.2), thousand lats

<table>
<thead>
<tr>
<th></th>
<th>(A..S) Gross value added</th>
<th>(C) Manufacturing</th>
<th>(F) Construction</th>
<th>(G) Wholesale and retail trade</th>
<th>(H) Transportation and storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>3,203,615</td>
<td>471,760</td>
<td>185,017</td>
<td>443,598</td>
<td>359,176</td>
</tr>
<tr>
<td>1996</td>
<td>3,340,692</td>
<td>487,434</td>
<td>193,754</td>
<td>444,110</td>
<td>410,265</td>
</tr>
<tr>
<td>1997</td>
<td>3,655,376</td>
<td>568,059</td>
<td>212,229</td>
<td>509,591</td>
<td>446,418</td>
</tr>
<tr>
<td>1998</td>
<td>3,862,905</td>
<td>596,232</td>
<td>247,520</td>
<td>608,066</td>
<td>442,659</td>
</tr>
<tr>
<td>1999</td>
<td>3,993,533</td>
<td>571,718</td>
<td>268,919</td>
<td>670,371</td>
<td>444,087</td>
</tr>
<tr>
<td>2000</td>
<td>4,217,859</td>
<td>609,039</td>
<td>286,236</td>
<td>735,751</td>
<td>399,179</td>
</tr>
<tr>
<td>2001</td>
<td>4,537,843</td>
<td>661,016</td>
<td>309,338</td>
<td>793,976</td>
<td>449,685</td>
</tr>
<tr>
<td>2002</td>
<td>4,874,900</td>
<td>730,085</td>
<td>333,767</td>
<td>894,371</td>
<td>476,407</td>
</tr>
<tr>
<td>2003</td>
<td>5,240,255</td>
<td>764,802</td>
<td>383,694</td>
<td>994,222</td>
<td>538,752</td>
</tr>
<tr>
<td>2004</td>
<td>5,708,925</td>
<td>809,879</td>
<td>437,259</td>
<td>1,099,601</td>
<td>615,194</td>
</tr>
<tr>
<td>2005</td>
<td>6,294,639</td>
<td>850,641</td>
<td>504,798</td>
<td>1,280,931</td>
<td>709,327</td>
</tr>
<tr>
<td>2006</td>
<td>6,965,774</td>
<td>904,888</td>
<td>639,457</td>
<td>1,526,921</td>
<td>737,333</td>
</tr>
<tr>
<td>2007</td>
<td>7,580,966</td>
<td>912,415</td>
<td>761,726</td>
<td>1,697,637</td>
<td>821,073</td>
</tr>
<tr>
<td>2008</td>
<td>7,457,215</td>
<td>834,167</td>
<td>735,072</td>
<td>1,580,616</td>
<td>818,620</td>
</tr>
<tr>
<td>2009</td>
<td>6,294,107</td>
<td>685,727</td>
<td>499,588</td>
<td>1,177,679</td>
<td>827,872</td>
</tr>
<tr>
<td>2010</td>
<td>6,219,430</td>
<td>816,804</td>
<td>344,231</td>
<td>1,183,560</td>
<td>813,302</td>
</tr>
<tr>
<td>2011</td>
<td>6,562,864</td>
<td>912,590</td>
<td>385,228</td>
<td>1,286,935</td>
<td>878,798</td>
</tr>
</tbody>
</table>

Unit: thousand lats
(A..S) Gross value added
(C) Manufacturing
(F) Construction
(G) Wholesale and retail trade; repair of motor vehicles and motorcycles
(H) Transportation and storage

Table 9. Real unit labour cost - annual data. Index, 2005=100 [Code: nama_aux_ulc]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>EU (27)</td>
<td>104.9</td>
<td>102.6</td>
<td>102.5</td>
<td>98.8</td>
<td>98.0</td>
<td>99.0</td>
<td>102.2</td>
<td>100.5</td>
<td>101.0</td>
<td>100.3</td>
<td>99.6</td>
</tr>
<tr>
<td>Estonia</td>
<td>116.7</td>
<td>105.3</td>
<td>100.2</td>
<td>100.3</td>
<td>105.4</td>
<td>114.6</td>
<td>117.8</td>
<td>109.7</td>
<td>105.2</td>
<td>106.2</td>
<td>106.0</td>
</tr>
<tr>
<td>Latvia</td>
<td>107.9</td>
<td>109.0</td>
<td>94.7</td>
<td>104.6</td>
<td>110.7</td>
<td>118.3</td>
<td>110.3</td>
<td>100.2</td>
<td>99.6</td>
<td>96.8</td>
<td>95.2</td>
</tr>
<tr>
<td>Lithuania</td>
<td>93.5</td>
<td>109.5</td>
<td>98.0</td>
<td>103.3</td>
<td>101.4</td>
<td>104.2</td>
<td>95.1</td>
<td>90.1</td>
<td>88.4</td>
<td>86.0</td>
<td></td>
</tr>
</tbody>
</table>

Note: f – forecast

Figure 12. Real unit labour cost - annual data. Index, 2005=100 [Code: nama_aux_ulc]

Source: authors illustration

Having a base of 1995 = 100, the 1995th ratio had the highest labour costs in Estonia (116.7), and Lithuania was lowest (93.5), Latvia was between them (107.9). Estonian labour cost declined steadily until 2002 years (100.2), and were stable and the years 2007 - 2009 (117.8) saw a sudden increase. Latvian labour costs declined steadily from 1997 (114.5) to 2002. (94.7), had two years of steady, and growth the 2008th year (118.3), but was followed by a gradual decrease to a level below 2005th level. Labour costs of Lithuania was the most stable and declined sharply after the economic crisis of the 2011th was 90.1. Lithuanian Labour cost has been the most stable and after recession declined sharply, reaching the 2011th was 90.1. According to the forecast, Latvian and Lithuanian labour cost decline will continue in the years 2012 and 2013, but Estonia is a small increment.
The ULC is one of the indicators characterising competitiveness (the country in general and individual sectors).

In 2010, compared to 2008, the real ULC in the EU countries has increased on average by 1.2%. Yet, it decreased in the Baltic States, thus reflecting the improving competitiveness. In 2010, the real ULC in Estonia and Lithuania was respectively by 4.3% and 7% lower than in 2008. But it decreased by 14.4% in Latvia. Unlike the years of rapid growth, when changes (growth) in the ULC were mainly determined by structural factors, the ULC dynamics since 2008 to a great extent are related to the cyclical factors or crisis consequences. The real ULC still continued to grow in 2008 but not as rapidly and it was by almost 7% higher than in the previous year. [Economic (2011)]

The significant adjustments in the labour market of Latvia (Figure 14) in 2009 affected the dynamics of both productivity and labour costs. If compared with 2008, productivity has decreased by 5.5% as GDP decreased faster than the number of the employed. However, the labour costs in 2009, if compared with 2008, decreased by 12.7% as the number of the employed decreased faster than the payroll. As a result, the real ULC decreased by 6.2 per cent. The ULC dynamics in 2010 and in the three quarters of 2011 mainly depended on relative changes in the wages and on the number of employed. Yet, considering the low competitiveness of Latvia in the common EU labour market, the changes were already rather moderate. Therefore, the decrease in the unit labour costs, as well as the increase in productivity was to great extent based on changes in the number of employed. The real ULC in 2010 was by 8.2% lower if compared with the previous year, but in the 3rd quarter of 2011 this indicator was by 3.6% lower than a year before. The dynamics of unit labour costs and productivity in 2010 and at the beginning of 2011 show that the rapid adjustment period is over and opportunities to improve competitiveness at the expense of labour cost cuts have been exhausted.
The increase in competitiveness of Latvia no longer can be based on this factor, moreover, taking into account that it will not be possible to keep low wages under circumstances of free labour movement. [Economic (2011)]

2. 3. Labour productivity per person and per hours

Labour productivity in Estonia will be viewed in more detail below.

**Table 10. Productivity indicators of Estonian companies in current prices, 2001-2012 [Code: FS0411]**

<table>
<thead>
<tr>
<th>Labour productivity per person employed on the basis of net sales, thousand euro</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Q</td>
<td>10.8</td>
<td>11.1</td>
<td>12.3</td>
<td>13.6</td>
<td>15.2</td>
<td>17.6</td>
<td>20.6</td>
<td>21.2</td>
<td>18.5</td>
<td>20.8</td>
<td>25.2</td>
<td>27.1</td>
</tr>
<tr>
<td>II Q</td>
<td>12.2</td>
<td>12.9</td>
<td>13.4</td>
<td>15.2</td>
<td>17.3</td>
<td>20.2</td>
<td>23.4</td>
<td>23.4</td>
<td>20.4</td>
<td>24.0</td>
<td>27.6</td>
<td>29.3</td>
</tr>
<tr>
<td>III Q</td>
<td>12.3</td>
<td>12.8</td>
<td>14.0</td>
<td>15.4</td>
<td>18.2</td>
<td>21.0</td>
<td>23.6</td>
<td>24.0</td>
<td>20.8</td>
<td>25.2</td>
<td>28.1</td>
<td>29.7</td>
</tr>
<tr>
<td>IV Q</td>
<td>13.4</td>
<td>13.6</td>
<td>15.0</td>
<td>16.6</td>
<td>19.7</td>
<td>22.0</td>
<td>24.4</td>
<td>22.0</td>
<td>21.7</td>
<td>26.8</td>
<td>29.3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labour productivity per person employed on the basis of value added, thousand euro</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>I Q</td>
<td>2.1</td>
<td>2.4</td>
<td>2.5</td>
<td>2.7</td>
<td>3.4</td>
<td>4.0</td>
<td>4.2</td>
<td>3.2</td>
<td>3.5</td>
<td>4.3</td>
<td>4.7</td>
</tr>
<tr>
<td>II Q</td>
<td>2.5</td>
<td>2.6</td>
<td>2.8</td>
<td>3.3</td>
<td>3.9</td>
<td>4.7</td>
<td>4.6</td>
<td>3.7</td>
<td>4.1</td>
<td>5.0</td>
<td>5.4</td>
</tr>
<tr>
<td>III Q</td>
<td>2.5</td>
<td>2.7</td>
<td>2.8</td>
<td>3.4</td>
<td>4.2</td>
<td>4.7</td>
<td>4.6</td>
<td>3.5</td>
<td>4.4</td>
<td>5.0</td>
<td>5.4</td>
</tr>
<tr>
<td>IV Q</td>
<td>2.6</td>
<td>2.7</td>
<td>2.9</td>
<td>3.6</td>
<td>4.5</td>
<td>4.7</td>
<td>4.0</td>
<td>3.8</td>
<td>4.7</td>
<td>5.1</td>
<td></td>
</tr>
</tbody>
</table>

From the second half of 2006, productivity per employed person in reference to sales revenues was over 20 thousand euro. A dramatic decline occurred in QI of 2009, which was followed by a slow growth, whereas QII and QIV of 2010 were record-breakers. Admittedly, Estonia has made its exit from the economic crisis mainly along the intensive road, i.e. on account of productivity growth.

Productivity per employed person in reference to added net value has changed due to other regularities. As late as in QIV of 2010, Estonia reached the level of the three successful pre-crisis quarters of 2007. Whereas in QIV of 2010, the level was already 1.5 times higher than productivity in the deepest slump of the crisis in QI of 2009.

After the crisis, productivity recovered quicker in reference to sales revenue than in reference to added value, which is an indicator of the runaway selling prices after the crisis.

While the above analysis by quarters supports the assumption that during the period of the economic crisis changes take place extremely rapidly, as a consequence, an analysis with one year precision will not provide a correct picture of upcoming changes.
Table 11. Productivity per employed person for Estonian companies, thousand euro, 2005 – 2011 [Code FS008]

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>By reference to sales revenue</td>
<td>72.1</td>
<td>81.2</td>
<td>92.2</td>
<td>93.6</td>
<td>81.2</td>
<td>95.4</td>
<td>112.2</td>
</tr>
<tr>
<td>By reference to value added</td>
<td>14.7</td>
<td>17.4</td>
<td>19.3</td>
<td>18.7</td>
<td>17.4</td>
<td>19.6</td>
<td>22.7</td>
</tr>
</tbody>
</table>

Sales revenue per employed person was 44.3 thousand euro in the first quarter of 2010, which is more than in the previous year but still falls short of the average of 2007 and 2008.

The productivity of the business sector in reference to added net value increased by 18% in 2010, while the companies’ average labour expenses per employed persons remained at the level of 2009.

Based on sales revenue, labour productivity per employed person grew steadily for all companies until 2008, as did hourly productivity based on sales revenue, then a great decline of 13.2% and 10.0% respectively followed, which, on the other hand, is much smaller than the decline of total business output or real GDP. However, already in 2010, both indicators reached record levels.

The new Employment Contracts Act, which made labour relations more flexible, and the more effective unemployment insurance system also had great influence.

Table 12. The enterprises’ added value and productivity measures, by indicator and economic activity (EMTAK 2008) of Estonia [Code FS008]

<table>
<thead>
<tr>
<th>Economic activities total</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour productivity per person employed on the basis of net sales, thousand euro</td>
<td>72.1</td>
<td>81.2</td>
<td>92.2</td>
<td>93.6</td>
<td>81.2</td>
<td>95.4</td>
<td>112.2</td>
</tr>
<tr>
<td>Hour productivity on the basis of net sales, euro</td>
<td>42.85</td>
<td>48.22</td>
<td>55.52</td>
<td>56.27</td>
<td>50.57</td>
<td>59.12</td>
<td>67.96</td>
</tr>
<tr>
<td>Labour productivity per person employed on the basis of value added, thousand euro</td>
<td>14.7</td>
<td>17.4</td>
<td>19.3</td>
<td>18.7</td>
<td>17.4</td>
<td>19.6</td>
<td>22.7</td>
</tr>
<tr>
<td>Hour productivity on the basis of value added, euro</td>
<td>8.71</td>
<td>10.33</td>
<td>11.64</td>
<td>11.21</td>
<td>10.84</td>
<td>12.13</td>
<td>13.78</td>
</tr>
</tbody>
</table>

Figure 15. Labour productivity per employed person and hourly productivity based on net sales, 2005 – 2011 [Code FS008]

Source: authors illustration
A similar comment also holds for labour productivity and hourly productivity based on added value. Still, in 2010 labour productivity per employed person based on sales revenue in smaller firms remained below the labour productivity of the pre-crisis years. However, growth was strong in large companies with 250 or more employees, where it grew to 103,500 euro (in comparison, the same indicator was only 64,600 euro in 2005). This also led to the sum of all companies achieving the greatest labour productivity in 2010.

Hourly productivity based on sales revenue in 2010 still remained low for companies with up to 20 employees, while larger companies already reached record levels. Again, large companies with 250 and more workers experienced a particularly large increase, where it grew to 61,150 euro (in comparison, the same indicator was 37,350 euro for such companies in 2005), amounting to an annual growth of 18.1%.

As a whole, labour productivity and hourly productivity based on added value reached record levels for all companies in 2010. SME still remained below the 2007 level and for companies with 10 to 19 employees, below the 2008 level. On the other hand, companies with more than 20 employees already reached record levels in 2010.

Labour productivity per employed person and hourly productivity on the basis of net sales are given of the authors' earliest publications [Tanning 2012 d].

<table>
<thead>
<tr>
<th>Table 13. Areas of economic activity in total of Estonia. [Code: FS0411]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>2002</td>
</tr>
<tr>
<td>2003</td>
</tr>
</tbody>
</table>
Table 14. Labour productivity per employed person based on added value, thousand euro [Code: FS0411]

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Transportation and storage</th>
<th>Wholesale and retail trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IQ</td>
<td>IIQ</td>
<td>IIIQ</td>
<td>IVQ</td>
</tr>
<tr>
<td>2002</td>
<td>1.9</td>
<td>2.4</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>2003</td>
<td>2.0</td>
<td>2.6</td>
<td>2.5</td>
<td>2.4</td>
</tr>
<tr>
<td>2004</td>
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<td>2.7</td>
<td>2.6</td>
<td>2.6</td>
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<tr>
<td>2005</td>
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<td>2006</td>
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<td>2007</td>
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<td>2008</td>
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<td>4.3</td>
<td>3.6</td>
</tr>
<tr>
<td>2009</td>
<td>2.8</td>
<td>3.4</td>
<td>3.8</td>
<td>3.7</td>
</tr>
<tr>
<td>2010</td>
<td>3.9</td>
<td>4.6</td>
<td>4.8</td>
<td>5.3</td>
</tr>
<tr>
<td>2011</td>
<td>5.0</td>
<td>6.0</td>
<td>5.1</td>
<td>5.1</td>
</tr>
<tr>
<td>2012</td>
<td>4.9</td>
<td>5.8</td>
<td>..</td>
<td>..</td>
</tr>
</tbody>
</table>

Table 15. Hourly productivity based on added value, euro [Code: FS0411]

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Transportation and storage</th>
<th>Wholesale and retail trade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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During the years 2002 – 2004, hourly productivity based on net added value in transportation was better than the Estonian average. The construction boom began and in 2008 raised hourly productivity in construction to a higher level than the state’s average; the difference was especially great in 2007. The following crisis, on the other hand brought the productivity of builders sharply below the average. Although the builders’ productivity grew significantly in 2011 and 2012, it remained lower than in other economic sectors.

While productivity in the processing industry remained lower than the average both before and during the crisis, it was the highest in 2010 and 2011. In 2012 however, productivity in transport slightly exceeded industry. Both one and the other were better by specific quarters in recent years, thus they were equal. Productivity in the retail and wholesale trade during the years 2005 – 2008 was higher than the average and lower after the crisis. As a rule, there were no significant differences in the productivity of different sectors of the economy before or after the crisis, excl. construction.

Similarly, structural issues of the labour market must be dealt with by supporting efforts to obtain higher qualification based on labour market requirements and improving regional and professional labour mobility. Employment policy should be developed taking into consideration that the share of the long-
term unemployed increases the risk of cyclic unemployment turning into structural unemployment. [Economic 2011]

Taking into account this publication and the previous work of the authors [Tanning 2012 a; Tanning 2012 b; Tanning 2012 c; Tanning 2012 d; Tanning 2012 e] have made the following conclusions and suggestions.

RECOMMENDATIONS AND CONCLUSIONS

The ongoing transition to a sustainable economic model of the economy is the Baltic States, where exports are a key driver of growth and competitiveness in the domestic and foreign markets, and the ability to be competitive in attracting capital to increase the production capacity of the Baltic countries.

Recommendations

1. Companies came out of the economic crisis by a surge of hiring professionals, engineers and customer service staff.

2. Companies were brought out of the economic crisis by the growth of labour productivity.

3. The importance of large companies, especially those with 250 and more employees, was decisive.

4. The new (supplemented) Employment Contracts Act also had a positive effect.

To increase labour productivity the following should be taken into account:

1. To contractors.
   1.1 Objective factors (different innate abilities, talents, working and living conditions).
   1.2 Subjective factors (self-realization, motivation, commitment, a desire to work better, ambition, education, qualification, a variety of mental and physical abilities, laziness, negligence, drunks, the courage to set high goals and the desire to strive for them).

2. To employers (the company).
   2.1 Objective factors [better organization of work, using more efficient machinery and equipment, innovation, improving working conditions (lighting, noise, humidity, temperature, air composition, etc.), natural conditions, material possibilities].
   2.2 Subjective factors [moral (cheering, encouragement, etc.) and material incentives (salary, bonuses, bonus payments, etc.), creating conditions for up-skilling and re-training, the work environment (working collective, i.e. co-workers, etc.), not overly demanding, behaviour with the staff (guaranteeing human integrity, name-calling, etc.), taking internal tensions to the minimum, a desire to develop the company and increase its fame, the educational level and experiences (information capital) of the management leadership, the ambition of the company’s management].

3. Several of the factors for raising mental and physical work productivity are different. Typically, an increase in the company’s productivity depends more on the employees that do mental work (engineers, economists, etc.). It is important to establish an optimal relationship between the groups. The excellent drawings for a machine designed by an engineer will still usually be finished in metal by workers.
4. Each company, sector of the economy and region has its peculiarities, and taking these into account would increase labour efficiency.

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THE INFLUENCE OF PROPERTY TAXATION ON THE FINANCIAL MECHANISM OF THE ORGANIZATION

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Abstract
The article deals with the main taxation peculiarities of the property of legal entities, analyzes the statistic data that characterize the property taxation in Russia. It determines the main problems of property taxation in Russia. The article detects connections that characterize the quality influence of equity revaluation on the financial mechanism of the organization.

Key words: property taxation, taxation system, taxation policy, statistics, financial mechanism.

1. ВВЕДЕНИЕ
Социально-экономические преобразования, проводимые сегодня в России, предопределяют необходимость формирования эффективной системы налогообложения как одного из важных условий улучшения экономической ситуации в стране.

Организация процесса налогообложения имущества предприятий влияет как на формирование налоговых доходов региональных бюджетов Российской Федерации, так и на эффективность финансового механизма самих коммерческих организаций. Совершенствование налогообложения имущества со стороны государства в современной налоговой системе Российской Федерации осуществляется в основном в двух направлениях: повышение обоснованности уровня изъятия и улучшения его организации. В результате реализации комплекса мероприятий в этих направлениях за последнее десятилетие существенно повысился налоговый потенциал бюджетов. Однако, современных исследований влияния данного налога на эффективность финансово-хозяйственной деятельности предприятий реального сектора экономики на сегодняшний день не достаточно.

Поскольку необходимым условием успешного посткризисного развития российской экономики является, прежде всего, технологическое обновление, модернизация производства товаров и услуг, новый этап налоговой реформы должен быть нацелен на поддержку инноваций во всех секторах экономики.

В современных условиях возникла необходимость совершенствования налогообложения имущества. В связи с этим нам представляется, что при реформировании налогообложения имущества необходимо исходить не только из макроэкономических последствий рассматриваемых изменений, но и учитывать их воздействие на финансовый механизм организаций плательщиков налога на имущество. Российские организации-налогоплательщики также должны участвовать в процессе совершенствования налогообложения имущества не только посредством повышения налоговой дисциплины, но и применения научно-обоснованных инструментов правомерного воздействия на параметры налога в направлении обеспечения
наиболее эффективного функционирования финансового механизма.
Существующий механизм начисления и взимания имущественных налогов в большей степени служит фискальным целям, нежели задачам общеэкономического характера, и имеет массу недостатков. Налог на имущество предприятий не стимулирует внедрение новых технологий, инвестиции в модернизацию основных фондов.
Только совместные, подкрепленные научным инструментарием усилия государства и налогоплательщиков дадут результат в решении вопроса совершенствования налогообложения имущества, соответствующем современному этапу развития экономики и состояния финансовой системы РФ. Поэтому исследование проблемы налогообложения имущества в финансовом механизме российских организаций в современных условиях особенно актуально.
Различные аспекты теории налогов детально представлены в работах зарубежных ученых-экономистов: Д. Кейнса, А. Маршалла, А. Смита, Д. Рикардо.
В современной отечественной литературе теория налогов и налогообложения, совершенствования налогового механизма отражена в трудах А.В. Брызгалова, Л.А. Дробозиной, Н.В. Милякова, С.Г. Пепеляева, Д.Г. Черника, Т.Ф. Юткиной.
Отдельные проблемы налогообложения имущества, формирования системы информационного обеспечения процесса налогообложения, а также вопросы необходимости реформирования системы налогов с объектов имущества рассматривались в работах С.Н. Ануфриевой, М.Ю. Гусева, И.А. Дрожжиной, Е.Н. Жуковой, А.С. Зарецкой, Л.И. Голубевой, Н.В. Калининой, З.Г. Усовой и других, которые исследовали социально-экономические аспекты налогообложения, обобщив зарубежный опыт налоговой политики и определили основные направления его адаптации в России.
Проблемы теории и практики оценки имущества по рыночной стоимости в России исследовались в работах М.Ю. Березина, В.А. Горемыкиной, А.Г. Грязновой, В.В.Григорьева, А.В. Ульянина, М.А. Федотовой и др.
Содержание финансового механизма российских организаций и пути его совершенствования с учетом налоговых факторов рассматривалось в работах таких ученых как Н.П. Белотелова, Н.В. Бондарчук, В.В. Ковалев, В.Г. Когденко, М.Н. Крейнина, Н.С. Пласкова, Е.С. Стоянова, А.Д. Шеремет. Однако, несмотря на научные результаты перечисленных авторов, приходится признать, что на сегодняшний день проблема роли и участия налогообложения имущества в финансовом механизме российских организаций в современных условиях налогообложения и постоянного совершенствования налогоевой системы остается практически не изученной.
Признавая научную обоснованность и практическую значимость существующих подходов к решению рассмотренных проблем, необходимо отметить недостаточную разработанность вопросов выявления специфики имущества как объекта налогообложения, построения единой методологии налогообложения объектов имущества. Значительная часть работ по рассматриваемой проблематике охватывает лишь правовую сторону вопроса налогообложения имущества, недостаточно отражая внимание экономическим предпосылкам и теоретическому обоснованию обложения имущества. Практически нет работ, посвященных комплексному развитию имущественного налогообложения и его влиянию на финансовый механизм российских организаций.
2. ФИНАНСОВЫЙ МЕХЕНИЗМ И ЕГО ОСНОВНЫЕ ЧЕРТЫ

В научной и учебно-методической литературе существуют разные подходы к определению понятия «финансовый механизм». Так, например, в современном экономическом словаре финансовый механизм рассматривается как «совокупность форм организации финансовых отношений, методов (способов) формирования и использования финансовых ресурсов, применяемых обществом в целях создания благоприятных условий для экономического и социального развития общества» (Терминологический словарь банковских и финансовых терминов, 2011).

По мнению М.В. Милякова финансовый механизм - это система установленных государством форм, видов и методов финансовых отношений. (Миликов Н.В. Финансы, учебник, 2-е изд.-М.: ИНФРА - М, 2007 стр. 39)

Коллектив авторов под руководством А.Г. Гразновой трактуют финансовый механизм как «совокупность видов, форм организации финансовых отношений, специфических методов формирования и использования финансовых ресурсов и способов их количественного определения». (Финансы, под ред. Гразновой А.Г., Маркиной Е.В., М.: Финансы и статистика, 2006 г., стр. 33)

Финансовый механизм предприятия - это система управления фиансами предприятия в целях достижения максимальной прибыли. (Волков О.И., Скляренко В.К. Экономика предприятия. – М.: ИНФРА-М, 2006. стр.200)

Финансовый механизм - составная часть хозяйственного механизма, совокупность финансовых стимулов, рычагов, инструментов, форм и способов регулирования экономических процессов и отношений. Финансовый механизм включает прежде всего цены, налоги, пошлины, льготы, штрафы, санкции, дотации, субсидии, банковский кредитный и депозитный процент, учетную ставку, тарифы. (Финансово-кредитный энциклопедический словарь / Колл.авторов; Под общ. ред. А.Г. Гразновой. М.: Финансы и статистика, 2002.)

Нетрудно заметить, что приведенные выше определения финансового механизма разнообразны и не вполне корректны.

С учетом изложенного выделим основные признаки финансового механизма, отличающие его от других видов хозяйственного механизма:

1. он представляет собой один из элементов хозяйственного механизма, организующих денежные потоки и финансовые обороты,

2. для него характерна совокупность форм организации финансовых отношений, специфических методов формирования и использования финансовых ресурсов и способов их количественного определения,

3. на него оказывает влияние совокупность установленных государством форм и методов финансовых отношений, действия финансовых рычагов, выражающуюся в организации, планировании, стимулировании использования финансовых ресурсов,

4. налогообложение и финансовый механизм тесно взаимосвязаны через правовые основы организации налогообложения,

5. финансовый механизм опосредует взаимосвязь имущественных прав и обязанностей организации-налогоплательщика
В условиях централизованной плановой экономики использовался только директивный финансовый механизм, обеспечивающий организацию финансовых отношений, распределение и использование финансовых ресурсов в интересах государства. В настоящее время с переходом к рыночным основам функционирования экономики используется иной механизм организации финансовых отношений, предполагающий широкое применение разнообразных инструментов финансового регулирования и стимулирования экономического развития. Налоговый механизм должен строиться с учетом не только его фискальной функции, но также необходимо, чтобы он способствовал регулированию и стимулированию отдельных видов деятельности и отраслей экономики.

Взаимосвязь финансового механизма с факторами производства и экономическими интересами субъектов финансовых отношений должна быть направлена на использование элементов финансового механизма с целью удовлетворения потребностей всех участников общественного воспроизводства в финансовых ресурсах, достижению устойчивого развития и реального экономического эффекта от проводимых финансовых операций.

Связь составных элементов финансового механизма, их взаимное регулирование в конечном итоге определяет последовательность осуществления финансовых операций, состав субъектов финансовых отношений, порядок их организации на практике.

Для успешной реализации финансовой политики государства необходим эффективно действующий финансовый механизм, который представляет собой совокупность способов организации финансовых отношений, применяемых с целью обеспечения благоприятных условий экономического развития.

Роль имущественных налогов заключается в том, что они являются важнейшим механизмом регулирования экономических отношений и содержат элементы экономического стимула. Определенность имущества как объекта обложения позволяет государству четко определить возможные налоговые поступления от данного налога, а учитывая взаимосвязь объекта имущества и его владельца, налог на имущество приобретает регулирующие возможности. С помощью этого рычага государство может снизить налоговые выплаты для отдельных категорий плательщиков или перераспределить платежи между группами плательщиков. Кроме того, налоговые платежи с объектов имущества позволяют стимулировать рациональное его использование.

3. НАЛОГООБЛОЖЕНИЕ ИМУЩЕСТВА В РОССИИ

В России налогообложение имущества осуществляется в основном в соответствии с общепринятыми в международной практике принципами, но, естественно, имеет ряд специфических особенностей.

В настоящее время налог на имущество взимается с организаций в региональные бюджеты с балансовой стоимости имущества, максимальная ставка — 2,2%. С 1 января 2004 г. порядок исчисления и уплаты налога на имущество организаций определяется главой 30 «Налог на имущество организаций» Налогового кодекса РФ.

В России налог на имущество организаций уплачиваются свыше 1,0 млн. налогоплательщиков. Налог на имущество организаций отнесен Кодексом к региональным налогам. Платежи от этого налога в размере 100% полностью зачисляются в бюджеты субъектов Российской Федерации и, поэтому занимают значительный удельный вес в их бюджетах и,
следовательно, данный налог имеет значительную роль в формировании доходов бюджетов субъектов Российской Федерации.

По мнению некоторых ученых-экономистов, необходимо изменить направления налоговой политики государства в части регулирования и стимулирования инвестиционных процессов в российской экономике. Она должна носить более активный характер – не просто создавать экономические условия, возможности осуществления налогоплательщиками инвестиционной деятельности, а целенаправленно побуждать их проводить модернизацию и обновление производства.

Наличие физически и морально изношенных основных фондов приводит к неэффективности их использования. Недостаточные темпы обновления основных фондов сдерживают процесс модернизации экономики России.

По данным Государственной службы статистики степень износа основных фондов в Российской Федерации имеет тенденцию к росту и составляет на конец 2011г. 47,9% (рис. 1).

Рис. 1. Степень износа основных фондов в Российской Федерации на конец отчетного года, в процентах (URL.: http://www.gks.ru)

Для характеристики состояния основных средств, в том числе производственных, их динамики и технического состояния следующие показатели: коэффициент обновления, коэффициент выбытия и коэффициент прироста основных средств.

Коэффициент обновления основных средств (Кобнос) показывает, сколько стоимости вновь поступивших основных средств приходится на рубль их балансовой стоимости на конец периода:

\[ \text{Кобнос} = \frac{\text{ОСпост}}{\text{ОСкп}} \]
где ОСₜₜост – стоимость основных средств, поступивших за период; ОСₜₜнач – балансовая стоимость основных средств на конец периода.

Коэффициент выбытия основных средств (КвыбОС) показывает, соотношение выбывшей за период стоимости основных средств и их балансовой стоимости на начало этого периода:

КвыбОС = ОСвыб:ОСнач

где ОСвыб – стоимость основных средств, выбывших за период; ОСнач – балансовая стоимость основных средств на начало периода.

Коэффициент прироста основных средств (КпрОС) показывает прирост стоимости основных средств за период, по отношению к их балансовой стоимости на начало периода:

КпрОС = (ОСₜₜост - ОСвыб) : ОСнач

Коэффициенты обновления и выбытия основных фондов по данным Росстата представлены на рис. 2.

Рис. 2. Коэффициенты обновления и выбытия основных фондов в Российской Федерации
(URL: http://www.gks.ru)

Коэффициент обновления основных фондов в 2011 г., рассчитанный в сопоставимых ценах по полному кругу организаций, составил 4,6 %. Наиболее активно в 2011 г. обновлялись основные фонды финансовой деятельности (8,3%), оптовой и розничной торговли (6,8%), государственного управления и обеспечения военной безопасности, обязательного социального обеспечения (7,2%), добычи полезных ископаемых (7,2%), обрабатывающих производств (5,8%).

Коэффициент выбытия (ликвидации) основных фондов в 2011 г., рассчитанный в сопоставимых ценах по полному кругу организаций, составил 0,8 %. Наиболее интенсивно ликвидировались основные фонды сельского хозяйства, охоты и лесного хозяйства (2,7%), рыболовства и
рыбоводства (2,6%), государственного управления и обеспечения военной безопасности, обязательного социального обеспечения (1,8%), здравоохранения и предоставления социальных услуг (1,7%) (URL.: http://www.gks.ru).

В целом по экономике оставающееся недостаточным поступление новых основных фондов сдерживает замену устаревших, изношенных фондов. Низкие объемы ликвидации устаревших основных фондов влияют на возрастную структуру имеющихся основных фондов.

Отсутствие возможности своевременной замены основных фондов ведет к продлению сроков использования неэффективных машин и оборудования. Во многих случаях они ликвидируются только при практической невозможности их дальнейшей эксплуатации вследствие физической изношенности.

Современная отечественная система имущественного налогообложения разнородна и неэффективна, обременена целой совокупностью недостатков и недоработок. На протяжении всей новейшей истории реформирования системы налогообложения в России, государство не уделяло должного внимания построению логичной, проработанной и, прежде всего, применимой на практике концепции поимущественного налогообложения. Несмотря на определенную преемственность Российской налоговой системы и её схожесть с системами имущественного налогообложения экономически развитых стран, существующая практика взимания платежей по этой группе налогов говорит о наличии существенных недоработок в законодательстве, системе исчисления и взимания имущественных налогов, что значительно снижает эффективность и поступления налоговых платежей от этой группы налогов.

Основными чертами современного состояния поимущественного налогообложения в России являются:
- обложение остаточной стоимости основных средств, а не всего имущества организации;
- тенденции снижения облагаемой базы в будущем ввиду опережения устаревания и выбытия имущества над его вводом;
- стабильность поступления доходов в бюджет.

Анализ современного развития российской экономики свидетельствует о недооценке фискальной и регулирующей роли налогов на имущество, показывая низкую эффективность этого вида налогообложения в регулировании экономических отношений в целом и имущественных в частности.

Основными проблемами имущественного налогообложения в настоящее время являются:
- низкая оценочная стоимость объекта налогообложения,
- незаинтересованность предприятий в обновлении основных производственных фондов;
- рост сумм налога при использовании организациями инструментов переоценки основных средств;
- потенциальное уменьшение доходов региональных бюджетов.

Основная проблема группы имущественных налогов является низкая оценочная стоимость объекта налогообложения, то есть остаточной стоимости в налоге на имущество организаций.

Налоговая система Российской Федерации нуждается в реформировании, причем одним из важнейших ее направлений является снижение налогового бремени для предприятий-
производителей путем выведения активной части основных фондов из-под налога на имущество. Создание системы налогообложения недвижимости на основе рыночной стоимости является одним из направлений налоговой реформы, которая начата правительством Российской Федерации.

4. КАЧЕСТВЕННОЕ ВЛИЯНИЕ ПЕРЕОЦЕНКИ ОСНОВНЫХ ФОНДОВ НА ФИНАНСОВЫЙ МЕХАНИЗМ ПРЕДПРИЯТИЯ

В настоящее время порядок отражения переоценки является ключевым отличием учета активов в российской отчетности от отчетности, подготовленной по МСФО. В отчетности по МСФО переоценка практически приводит к тому, что в бухгалтерской отчетности активы отражаются по реальной стоимости, которая соответствует информации, полученной от оценочных компаний.

На финансовый механизм деятельности предприятия оказывают влияние многие факторы, в том числе переоценка основных средств. На финансовые результаты переоценка основных средств влияет через величины амортизационных отчислений, себестоимость продукции, прибыли и налога на имущество организаций. В основном предприятия стремятся максимально снизить стоимость основных фондов, что позволяет снизить налоговые платежи, но, как показывает практика, этот способ не всегда оправдан и используют его предприятия, не имеющие обоснованных программ перспективного развития.

Налог на имущество организаций зависит от среднегодовой остаточной стоимости основных средств - чем выше стоимость основных средств, тем больше налог на имущество и тем меньше налог на прибыль.

По мнению автора в состав методических основ влияния переоценки фондов на финансово-хозяйственную деятельность должны входить следующие элементы:
1. принципы проведения анализа влияния оценки и переоценки на финансово-хозяйственную деятельность и налогообложение (ФХД и Н);
2. количественные показатели проведения анализа влияния оценки и переоценки на ФХД и Н;
3. качественные характеристики взаимосвязи анализа влияния оценки и переоценки на ФХД и Н.

Основные принципы анализа влияния оценки и переоценки на ФХД и Н:
• необходимо оценивать влияние двух видов переоценки: дооценки и уценки стоимости имущества;
• показатели анализа влияния оценки и переоценки на ФХД и Н должны комплексно отражать влияние процесса переоценки на разные элементы финансового механизма, строиться на их взаимосвязи и общей методической базе построения аналитических показателей в финансовом экономическом анализе;
• качественные характеристики анализа влияния оценки и переоценки на ФХД и Н должны подтверждаться расчетами, выполняемыми на основе количественных индикаторов и данных организаций – налогоплательщиков.

Базируясь на предложенных методических основах влияния переоценки основных фондов на финансово – хозяйственную деятельность организации автором были рассмотрены различные аналитические показатели. В результате было выявлено соответствие методическим основам следующих экономических показателей:
–изменение налога на прибыль вследствие переоценки:
\[
\Delta \text{Нпр} = \sum_{i=1}^{n} (B_i - B_{oi}) \times H_i \times \text{Спр},
\]
где: \(\Delta \text{Нпр}\) - величина снижения налога на прибыль за счет увеличения амортизационных отчислений вследствие переоценки; \(B_i, B_{oi}\) - восстановительная стоимость имущества соответственно после и до их переоценки; \(H_i\) - норма амортизации, доли ед.; \(\text{Спр}\) - ставка по налогу на прибыль, доли ед.

– изменение налога на имущество вследствие переоценки:
\[
\Delta \text{Ним} = \sum_{i=1}^{n} (O_{ci} - O_{coi}) \times \text{Сим},
\]
где: \(\Delta \text{Ним}\) – величина увеличения налога на имущество организаций после переоценки основных средств; \(O_{ci}, O_{coi}\) – остаточная стоимость основных средств соответственно после и до их переоценки; \(\text{Сим}\) – ставка налога на имущество организации, доли ед.

– снижения налога на прибыль за счет увеличения налога на имущество после переоценки основных средств:
\[
\Delta \text{Нпр} = \Delta \text{Ним} \times \text{Спр}
\]
где: \(\Delta \text{Нпр2}\) – величина снижения налога на прибыль за счет увеличения налога на имущество после переоценки основных средств.

–общая величина снижения налога на прибыль после переоценки основных средств:
\[
\Delta \text{Нпр общ} = \Delta \text{Нпр1} + \Delta \text{Нпр2}
\]

Но при уценке основных средств происходит снижение их восстановительной стоимости. Как следствие величина налога на прибыль увеличивается, а величина налога на имущество организации снижается, что также приводит к увеличению налога на прибыль.

Сопоставление общей величины чистой прибыли и амортизационных отчислений до и после переоценки позволяет оценить изменение инвестиционных ресурсов коммерческой организации в результате переоценки основных средств.

\[
\pm \Delta I = (\text{Пч1} + A1) - (\text{Пч0} + A0),
\]
где: \(\pm \Delta I\) – величина изменения амортизационных ресурсов коммерческой организации в результате переоценки основных средств; \(\text{Пч1, Пч0}\) – чистая прибыль организации соответственно после и до переоценки основных средств; \(A1, A0\) - амортизационные отчисления организации соответственно после и до переоценки.

Приведенные методические принципы и рассмотренные аналитические показатели позволяют сделать следующие выводы о влиянии переоценки на налогообложение, качественно характеризуя их взаимосвязь:

–переоценка основных средств является необходимым и обязательным атрибутом для коммерческих организаций, так как только в этом случае амортизация будет выполнять свою основную функцию, а бухгалтерский баланс будет объективно отражать финансовое состояние предприятия. При переоценке будет идти процесс возрастания их восстановительной стоимости, что, естественно, повлияет на величину налога на прибыль и налога на имущество организации;

–если инвестиционные ресурсы коммерческой организации после переоценки основных средств возрастают, то это свидетельствует о появлении больших возможностей для технического
перевооружения производства за счет собственных средств. С позиции оптимизации налогообложения основной критерий выбора задачи переоценки можно сформулировать следующим образом: чистая “налоговая экономия” от проведения переоценки, т.е. разность между экономией платежей по налогу на имущество и приростом платежей по налогу на прибыль, должна быть максимальной. Можно сделать вывод, что экономия платежей по налогу на имущество должна быть больше, чем прирост платежей по налогу на прибыль.

Тем не менее, изменение стоимости имущества на балансе организации напрямую влияет на размер исчисляемого налога на имущество.

Таким образом, прослеживается прямая зависимость суммы налога на имущество от результатов проведенной переоценки.

Всегда важно просчитать влияние переоценки основных средств на налог на имущество:

1) дооценка основных средств приведет к увеличению налога на имущество в среднем на 2,2 % от суммы дооценки (при ставке налога на имущество - 2,2%)

2) уценка основных средств приведет к обратному эффекту.

Несмотря на то, что переоценка активов напрямую не оказывает влияния на налог на прибыль, при определенных условиях косвенное влияние будет происходить.

Стоимость основных фондов и уровень амортизационных отчислений напрямую влияют на формирование налогооблагаемой базы по налогам на имущество и на прибыль. Причем воздействие переоценки фондов на эти налоги разнонаправлено. Высокая стоимость основных фондов увеличивает базу налога на имущество. Но, в то же время, повышенные амортизационные отчисления включаются в состав затрат и, увеличивая себестоимость продукции, снижают налогооблагаемую прибыль. И обратно, уменьшение стоимости основных фондов влечет за собой уменьшение налогооблагаемой базы по налогу на имущество и увеличение размера налогооблагаемой прибыли.

Действующий в настоящее время порядок расчета налоговой базы по налогу на имущество не стимулирует обновление основных средств. Если предприятие имеет новое оборудование, то налоговая база по налогу на имущество будет больше, а, следовательно, и налог на имущество будет выше, что влияет, в конечном итоге, на сумму чистой прибыли, которая потенциально может являться источником финансирования капитальных вложений.

5. ЗАКЛЮЧЕНИЕ

Налоговая система РФ, как любой другой страны, формируется постепенно в соответствии со многими национальными и общекономическими факторами, влияние которых существенно возрастает в условиях глобализации. В современных условиях наблюдается определенная конвергенция (взаимопроникновение) налоговых систем различных, связанных международными экономическими отношениями стран. Поэтому, в поиске путей совершенствования налога на имущество необходимо изучать и использовать на практике зарубежный опыт наиболее эффективных налоговых систем.

Анализ существующей системы имущественного налогообложения в Российской Федерации, международного опыта существования подобных систем, общего состояния налоговой системы
экономической ситуации должен послужить основой формировании концепции эффективной, стабильной и социально-справедливой системы имущественного налогообложения.

Основные производственные фонды в большинстве отраслей народного хозяйства в физическом и моральном аспекте существенно изношены. Для их замены требуются значительные инвестиции. В этих условиях государство должно создать необходимые условия для обеспечения заинтересованности хозяйствующих субъектов в обновлении основных средств.

В целом, действующая практика расчета налоговой базы по налогу на имущество не стимулирует технологическое переоборудование отечественных товаропроизводителей, препятствуя инновационному обновлению экономики. В целях устранения негативной практики считаем целесообразным использовать положительный опыт развитых рыночных стран. В частности, необходимо вывести из объектов обложения налогом на имущество активную часть амортизируемого имущества и оставить в составе облагаемой базы его пассивную часть. Такая мера направлена на стимулирование разработки, приобретения и внедрения новой техники и технологий, а, значит, на ускоренное развитие российской экономики.

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INNOVATIVE WAY OF CHANGING TECHNOLOGICAL STRUCTURE
IN RUSSIAN AGRICULTURE
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Abstract
This paper analyzes the reasons for the low efficiency of agricultural production. Determined that the main task of agriculture is the transition of agriculture to a new quality of economic growth - the increase in output per unit of resources expended in a quantitative and a reduction in the scale of the industry and optimize the structure of production. This in turn calls for a shift from an industrial to a technological way texnotronical.

Key words: technological structure, agricultural production, texnotronical technological system, an innovative way of development, genetic progress, sekstirovanie semen, beef cattle, and food security.

1. ВВЕДЕНИЕ
В последние десятилетия большинство промышленно-развитых стран связывают устойчивое развитие экономики с переходом на инновационный путь развития. Генератором экономического роста выступает процесс научного познания, последовательно воплощенный в элементах производительных сил, что приводит к смене технологического уклада.

Технологический уклад понятие научно-технического прогресса введенное в науку отечественными экономистами Д.С. Львовым и С.Ю. Глазьевым: совокупность сопряженных полизводств (взаимосвязанных технологических цепей) имеющая единый технический уровень и рассматриваемых как некоторая подсистема экономической системы - альтернативная по отношению к таким подсистемам как отрасль.

Технологический уклад характеризуется единым техническим строением. В современной мировой экономике длительность жизненного цикла технологического уклада оценивается примерно в 100 лет с фазами зарождения, роста, зрелости, спада.

Фаза роста нового технологического уклада характеризуется расширением производства, снижением издержек, увеличением спроса, повышением ценности капитальных вложений.

В настоящее время страны Западной Европы и США практикуют перевод 3-го и 4-го укладов в слаборазвитые страны Центральной и Восточной Европы с относительно низким уровнем заработной платы [Rumyantsev, Gusaniv & Maximov 1997], улучшая технологическую структуру собственного производства то в России на технологическое развитие оказывают два системных фактора: её геоэкономическое положение (территория, квалификационная рабочая сила, относительно дешёвый труд, наличие полезных ископаемых, объясняющее существование в России технологической многоукладности, то второй фактор - продолжение монетаристского курса.
реформы придавая процессу зарождение нового уклада нетипичной формы, - не вызывает шторм базисных и улучшающих нововведений виду резкого падения эффективности капитальных вложений в традиционные направления и устремление капитала в прибыльные области освоения базисных нововведений.

Наиболее низкий технологический уровень в России в потребительском секторе (сельское хозяйство, ЖКХ, социальные услуги – здравоохранение, просвещение, культура)

Если в целом российская экономика находится в настоящий период в основном на уровне 3-4 технологических укладов и лишь оборонная на 5 и по отдельным позициям 6, то сельское хозяйство в результате аграрной реформы оказалось отброшенным в своём развитии на 40-50 лет назад и лишь отдельные предприятия скоростныхотраслей можно с некоторой натяжкой отнести 4 технологическому укладу.

Сельское хозяйство на каждой волне своего этапного развития является многоукладным, хотя и наблюдается некоторое преобладание какого-то технологического уклада. Это обусловлено, с одной стороны особенностями сельскохозяйственного производства, а с другой – специфическими закономерностями формирования и развития конъюнктуры агропродовольственного рынка, что проявляется в особенностях действующих законов спроса, предложения, в специфике формирования цен и доходов в этой сфере экономики [Gysin 2011].

По мнению академика РАЕН Ю.В. Яковца автора концепции стратегического инновационного прорыва в мире в течение ближайших 10-15 лет будет осуществляться переход к 6-му технологическому укладу, основой которого будет не столько микроэлектроника, сколько наноэлектроника, фотоника, фотоинформатика [Kudako & Yakovych 2004].

Используя такой подход, не следует всегда и во всех случаях повторять предыдущий уклад, а находить и выбирать такие направления 6-го технологического уклада, где Россия может выйти в лидеры, найти свои ниша.

При ограниченности возможностей количественного наращивания производства в АПК на передний план выдвигается задача перехода сельского хозяйства к новому качеству экономического роста - увеличению производства на единицу затрачиваемых ресурсов при количественном их сокращении в масштабе отрасли и оптимизации структуры производства в соответствии с ресурсными возможностями растениеводства и животноводства, с учетом структуры общественных потребностей и спроса населения.

Такая направленность развития аграрной экономики предопределила переход от индустриально- го технологического уклада к разработке и освоению более современных технологий - технотронных, биотехнологий, то есть необходимость перехода к технотронному технологическому укладу.

Технотронный технологический уклад основан на использовании новейших достижений в области автоматизации, компьютеризации, информатики и опирается на применение компьютерных систем генерации агротехнологических решений, глобальных систем позиционирования, геоинформационных технологий, новейших информационных технологий, дистанционных и бортовых датчиков, автоматических исполнительных органов сельхозмашин.

С появлением новых технологий в сельском хозяйстве, таких как программирование продуктивности животных, урожайности сельскохозяйственных культур, точное земледелие, открываются широкие возможности, обеспечивающие рациональное и эффективное управление процессами роста растений в соответствии с их потребностями в питательных веществах и
условиях произрастания, направленное на оптимизацию производства, на рациональное использование ресурсов.

Под технотронными понимаются производительные силы общества, органически интегрированные по триединой формуле: работник - ЭВМ - автоматизированные средства производства.

Осуществляемый в странах с развитой экономикой переход сельского хозяйства к технотронно-биотехнологическому укладу призван обеспечить на третьем и четвертом этапах исторического развития аграрной экономики существенное повышение эффективности сельскохозяйственного производства, и тем самым - рост его доходности, компенсацию потерю от диспаритета цен.

Для агропродовольственной экономики, для решения мировой продовольственной проблемы это направление неиндустриальной революции имеет особое значение.

При происходящем в мире демографическом взрыве, росте спроса на сельскохозяйственную продукцию переход к технотронному технологическому укладу в состоянии обеспечить быстрое увеличение предложения продукции на мировом продовольственном рынке. Наиболее конкурентоспособными при этом окажутся те страны, которые смогут широко использовать возможности высокотехнологичного, технотронного уклада в области информатики, биотехнологии, генной инженерии, нанотехнологий. От этого зависит решение такой мировой проблемы, как обеспечение быстрорастущего населения Земли продовольствием.

До начала 1990-х гг. материально-техническая база сельского хозяйства России опиралась преимущественно на индустриальную основу, для которой было характерно широкое распространение машинного производства на крупных сельскохозяйственных предприятиях. Последовавший системный кризис, охвативший сельское хозяйство страны в условиях перехода к рынку, привел к деградации агропроизводственного потенциала, разрушению основ сформировавшегося индустриального технологического уклада в отрасли, когда большая часть производимой продукции сосредоточилась в мелких хозяйствах населения, основанных на использовании примитивных технологий, базирующихся преимущественно на ручном труде.

Это дает основание сделать вывод, что сельское хозяйство России было отброшено назад по состоянию технологического уклада, который можно теперь охарактеризовать как уклад с преимущественно доиндустриальными формами.

В последнее десятилетие произошли некоторые технологические сдвиги, появились крупные агропредприятия, применившие современные технологии и зарубежную технику. Однако большая часть продукции по-прежнему производится в мелких хозяйствах населения, использующих преимущественно ручной труд и затратные технологии.

В настоящее время сельское хозяйство страны находится перед выбором: инерционный или инновационный путь развития. Переход к инновационному пути развития АПК предопределяет необходимость осуществления крупномасштабной новой индустриализации, что обеспечит переход к технотронному, высокотехнологическому укладу и насыщению потребностей населения России в качественной продовольственной продукции.

Технологическое и техническое перевооружение сельского хозяйства в современных условиях является ключевой проблемой обеспечения продовольственной безопасности России. Только создание и освоение новой техники и инновационных технологий в сельском хозяйстве позволит поднять качество и конкурентоспособность отечественной сельхозпродукции. Иновационные технологии - это технологии, связанные с применением высоких научных
знаний в производственной деятельности в целях создания нового или совершенствования существующего технологического процесса, обеспечивающего получение конкурентоспособного на мировом рынке нового или улучшенного продукта. Новые технологии являются огромным ресурсом, позволяющим обеспечить успешное экономическое развитие страны.

Получению максимальной продуктивности скота способствуют технологии беспривязного содержания, групповое нормированное кормление сбалансированными кормосмесями, однородными по физиологическим особенностям групп животных, приготовление, доставка и раздача которых производится мобильными смесителями-кормораздатчиками, исключение стрессов при содержании животных, применение машин и оборудования, соответствующих требованиям животных.

Примером эффективного использования инновационных методов управления стадом молочного скотоводства является опыт ЗАО “Племенной завод “Ручьи” Ленинградской области

Система управления молочной фермой.

Новая концепция управления молочной фермы позволяет:

- продуктивность и здоровье вымени
- обнаружение охоты
- оценка компонентов молока в прямом режиме времени
- вес
- индивидуальное кормление Сортировка коров
- управляющее ПО

Оценка компонентов молока в реальном режиме времени индивидуально для каждого животного во время каждой дойки.

Ежедневные данные о компонентах молока

- жир
- белок
- лактоза
- уровень соматических клеток
- кровь в молоке
- точные лактационные данные, приведенное по жиру молоко за 305 дней (FCM)

Существующие автоматизированные средства выявления охоты

- шагомеры, установки на ногу
- анализ активности, ошейники на шею животного

Система управления молочной фермой применяется в основном на беспривязном содержании животных и направлена прежде всего на:
- снижение количества обслуживающего персонала (на стаде в 400 голов с 30 человек на привязном содержании до 8-10 человек на беспривязном).
- помощь ветеринарным врачам при выявлении больных животных.
- сокращение сервис-периода до 100-120 дней.
- повышение качества получаемого молока
- контроль работы персонала.
- оптимизация кормления.
- упрощенный зоотехнический учет.

Применяя данную систему управления стадом, удалось снизить производственную себестоимость молока до 11 рублей за литр на беспривязном содержании, против 16 рублей на привязном.

Эффективным способом ускорения генетического прогресса, повышение продуктивности молочного скота является секстрирование спермы быков-производителей. Секстрирование заключается в том, что сперму с помощью лазерного оборудования разделяют на "Х" хромосомы, несущие женский набор генов, и "У" хромосомы, несущие набор мужских генов.

Использование спермы несущей "Х" хромосомы позволяет получать в потомстве до 80% телочек, что дает значительный экономический эффект.

Сложившаяся система государственной поддержки стимулирует инвестиционно-инновационный процесс при благоприятной конъюнктуре рынка. При кризисе для стабильного развития отрасли свиноводства принятых мер недостаточно. Необходимо разработать комплекс мероприятий по стабилизации цен на комбикорма (дотации сельскохозяйственным предприятиям на закупку кормов, государственное регулирование цен на зерно, снижение пошлин на соевый шрот и др.).

В целом анализ сложившегося механизма инвестиционных и инновационных процессов показал, что стремление к быстрой окупаемости инвестиций приводит к закупке дешевых технологий, которые не обеспечивают конкурентоспособного производства свинины. При росте цен на любые виды ресурсов, рентабельность отрасли резко падает. В долгосрочной перспективе искусственная поддержка конкурентоспособности российского свиноводства невозможна. Поэтому необходимо не только привлекать заемные средства, но и контролировать технологии крупных проектов.

Скотоводство в отличие от других отраслей животноводства (например, свиноводства, птицеводства) продолжает сохранять довольно тесную связь с факторами естественного порядка. Учет природно-климатических факторов предопределяет динамику и устойчивость развития скотоводства, его технологические особенности.

В России в последнем десятилетии сложилась ситуация с производством и потреблением говядины

Молочное и мясо-молочное скотоводство могут обеспечить потребность общества в говядине лишь на 65-70%. К тому же с повышением удоев и интенсификации этой отрасли дефицит говядины не только сохранится, но и увеличится. Получение ее в достаточном количестве возможно лишь при возрождении и устойчивом развитии мясного скотоводства.
Специализация скотоводства на молочном и мясном направлениях в США позволила достичь потребления 50 кг говядины в год на душу населения, при общем потреблении мяса 116 кг (в убойной массе). Формирование двух самостоятельных специализированных отраслей в скотоводстве лежит в основе достижения высокого уровня эффективности производства как молока, так и говядины. Известно, что преобладание мясного скота в США, где его доля составляет около 80%, позволяет производить 30% мирового производства говядины, имея лишь 13% мирового поголовья крупного рогатого скота.

Мясное скотоводство имеет ряд конкурентных преимуществ по сравнению с молочным животноводством - это не менее капиталоемкая отрасль.

В хозяйствах многих районов России сохранились резервы, необходимые для создания отрасли мясного скотоводства:

имеются неиспользуемые животноводческие помещения, в которых (при незначительных затратах на ремонт) возможно размещение мясного скота;

кормовая база позволяет держать большое количество скота и для ее расширения имеется достаточное количество неиспользуемых угодий, на которых можно организовать заготовку объёмистых кормов и долголетние, культурные пастбища;

молочный скот, имеющий низкую продуктивность, может быть использован для получения помесных телят и методом поглотительного скрещивания будет формироваться отрасль – специализированное мясное скотоводство.

Конкурентоспособность продукции аграрного сектора, прежде всего, может быть обеспечена только за счет инновационной ренты, посредством постоянных нововведений, как технологического, так и организационного характера.

В агропромышленных формированиях (агрохолдингах), объединяющих производство-переработку-торговлю имеются лучшие условия для инновационной деятельности, в том числе и за счет взаимодействия звеньев этой цепочки - обеспечивающих заказ друг другу и тем самым адаптировать инновационные технологии для модернизации производства.

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CONSUMER BEHAVIOUR IN EU COUNTRIES IN THE PERIOD OF ECONOMIC CHANGES
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Abstract
The paper focuses on development of consumer behaviour on the basis of household expenditures in period 2005 to 2011 in individual European countries. To examine the changes in behaviour was used cluster analysis. The result of application of cluster analysis on consumer behaviour in different European countries for the reference years 2005 to 2011 are in graphic expression of dendrograms, which illustrate the differences in household consumption expenditure structure among EU member countries.

Key words: Consumer, behaviour, cluster analysis, EU

1. INTRODUCTION

Consumer behavior and the pursuit of its understanding is the subject of theoretical research and interest of all market participants in many roles. Consumers are influenced not only by external economic factors and marketing tools at the time, but the consumer is also identified by his own personal characteristics, which then, have other influences such as psychological, social and cultural. The cultural effects are long-term and together with the influence of family environment, creates consumers individual personality and lifestyle. Immediate influence on consumer behaviour can be expected especially from the economic situation of the household and from the impact of marketing tools. Changes that took place in Eastern European countries, changes of the social system, the economic development in these countries since 1990, and finally economic crisis since 2008 may affect consumer’s behaviour as well. Can these changes have a significant impact on cultural and family habits of these consumers later reflected to their consumer behaviour?

Aim of this paper is to answer the question of whether the changes related to joining EU and changes in financial and economic crisis have significant impact on consumer behaviour.

Consumer behaviour is one of the important manifestations of human behaviour, which is related to its economic activities. It is a process of deciding how to use their own available resources (time, money and effort) associated with the consumption of specific products and services (Shiffman, Kanuk, Hansen, 2010). This process is influenced by many factors - from the personal characteristics of an individual, through cultural, social and psychological factors to the properties and characteristics of goods and services. Moreover, it is a dynamic, constantly evolving process, which is not only connected to the moment when customers are exchanging their money for goods or services. It is necessary to emphasize the process of the consumption when influences are demonstrated before purchase also during the purchase and finally after it’s realization (Solomon, 2007). The pursuit to understand consumer behaviour has led to the creation of models of consumer behaviour.
As already mentioned, consumer behaviour is influenced by a variety of personal, psychological, social and cultural factors. It is very important to understand the impact of cultural factors on consumer behaviour from the perspective of this paper. Culture represents values, opinions and attitudes that are shared by a homogeneous group of people and forwards them to the next generations. (Careora, Gilly, Graham, 2009). Culture is an everyday part of our lives and affects us our whole life. It affects how we spend our money and how our consumer behaviour looks like in general. The differences between cultures are not always bounded by national borders. Obvious cultural differences between social groups are often seen, such as between nations in many countries (Peter, Olson, 2010).

Světlík (2003) mentions Usunier’s division of the EU in so called areas of cultural affinity. To the common layers of cultural affinities consumers who have common interests, values, attitudes and purchasing motives are included. Also based on the assumption, that culture transcends national boundaries. As a separate zone he defines Scandinavia and the Mediterranean Sea. The third zone is made up of Central European countries and the fourth of Great Britain. More precisely, the situation of cultural overlapping in each zone is described in figure 1.

![Figure 3: Zones cultural affinities](source: Světlík, 2003)

Cultural factors are those factors with the longest period of effects on changes in consumer behaviour; changes in cultural habits have character of evolution, on-going for a several generations and over the life of the individual are largely unchanged.

Formation of the EU has brought many changes, including breaking many barriers that divided countries in Europe, such as the free movement of persons and goods, union regulations and laws. Despite these
changes, there are still cross-cultural differences between the EU countries and it is expected that even in future they will not disappear. Although many countries have already given up their national currencies and adopted the euro, each nation retains its language, cultural opinion, customs and rituals, (Peter, Olson, 2010).

Consumer behaviour is reflecting the impact of a certain standard of living and welfare of society. Income situation of households is a quantitative indicator of the standard of living. The most commonly used indicator of the standard of living is GDP per capita. To recognize rules of consumer behaviour and the factors affecting them, it is important to identify the environment in which consumers live from an economic point of view. The global economic crisis on-going since 2008 is affecting all economies of the European Union. Although most countries have enacted comprehensive anti-crisis measures in virtually no country could not avoid the decline in domestic demand and a fall in GDP growth (Karpová, 2010). The impact of crisis and economic development of individual countries in eurozone and beyond was very heterogeneous (Connelly, 2011). Also differences between EU members remain very strong, both in GDP growth rates (which reflect different economic advancement of EU members) and the GDP per capita (Žďárek, 2011).

Some economies have been affected relatively less (eg Poland), while others had significant economic drop (the Baltic States, Ireland, Slovenia, the Nordic countries, but also in Germany, Great Britain, Italy, etc.) and some countries even had to ask for help from international financial institutions (Latvia, Hungary, Romania) (Coupalová, 2009).

In 2009, all EU members except Poland experienced a decrease in the level of real GDP. The biggest drop of economies was observed in Baltic States (Estonia, Lithuania and Latvia). Further international development confirmed that this crisis, which was initially only financial, had turned into economic one and can be characterized by the decline in the growth rate of GDP in most countries outside the EU as well (Norway 1.4%, Switzerland 1.9%, USA - 2.6%) (Brasoveanu & Brasoveanu, 2011).

The global economic crisis has reached the countries of Central and Eastern Europe with a time delay and fully developed in 2009. Particularly deep was recession in the Baltic countries, but by the crisis were afflicted almost every countries of the EU-10. Looking closely at the current economic development of the EU 10 since year 2008, during which the economic crisis began to reflect itself, we are able to define three groups of countries affected by the intensity of the economic crisis:

- **Countries extremely affected by the economic crisis** – this includes Estonia, Lithuania and Latvia, decline in GDP in 2009 ranged from 14.1 to 18.0 percent of GDP.
- **Countries relatively less affected by the economic crisis** – those can be pointed as Bulgaria, Hungary, Romania and Slovenia when the economic recession occurred later, in 2009 (in the range from 5.0 to 7.8 percent).
- **Countries with moderate process of the economic crisis** – this includes development of economies of the Czech Republic, Slovakia and Poland in particular. Recession of Czech and Slovak economy did not exceed 5 percent. In the regional context exceptionally favorable was situation of Poland, whose economic performance in 2009 actually increased, albeit only by 1.7 %. Relative stability of economies of all these three countries was define by the fact that until 2008 there were significantly increasing volumes of exports and in case of the Czech Republic the inflow of foreign direct investment as well (Karpová, 2010).

Although there was a growth in domestic demand across European economic in 2010, the first half of 2011 showed that domestic demand in the EU weakens again. During 2011, the prospect of growing
demand deteriorated again, as well as concerns about the debt crisis in the euro zone, especially in Greece, Ireland and Portugal. At the end of 2011 weakened real economy sent the European economy back into recession or prolonged stagnation (Connolly, 2011).

The question is how environment with big economic changes affect consumer behaviour. Whether these economic changes are so operating that they can influence the effect of those factors, which are strongly determined by culture, psychology or individual person.

2. METHODOLOGY

Data provided by the Statistical Office of the European Commission EUROSTAT were the main source of secondary data that was used for investigation of the behavior of consumers in the EU countries. For the purpose of this paper data based on describing household expenditure in individual EU countries were used.

This study is using data providing information about household expenditure for each item according to COICOP (Classification of Individual consumption by Purpose), in percentage expression and in member countries of the European Union. Data are available on the Eurostat website. Data are comparable with this classification. Individual items by COICOP are listed in table 1.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOOD AND NON-ALCOHOLIC BEVERAGES</td>
<td>bread and cereals, meat, fish, milk, cheese and eggs, fruit, potatoes, vegetables, sugar, jam, honey, chocolate and confectionery, food products, coffee, tea and cocoa for consumption at home, mineral waters, soft drinks, fruit and vegetable juices, non-alcoholic beverages</td>
</tr>
<tr>
<td>ALCOHOLIC BEVERAGES, TOBACCO AND NARCOTICS</td>
<td>spirits, wine, beer, alcoholic beverages for consumption at home, tobacco, narcotics</td>
</tr>
<tr>
<td>CLOTHING AND FOOTWEAR</td>
<td>clothing materials, garments, other articles of clothing and clothing accessories, cleaning, repair and hire of clothing, shoes and other footwear, repair and hire of footwear</td>
</tr>
<tr>
<td>HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS</td>
<td>rentals for housing, maintenance and repair of the dwelling, water supply and miscellaneous services relating to the dwelling, electricity, gas and other fuels</td>
</tr>
<tr>
<td>FURNISHINGS, HOUSEHOLD EQUIPMENT AND ROUTINE MAINTENANCE OF THE HOUSE</td>
<td>furniture, furnishings, carpets and other floor coverings, household textiles, household appliances, glassware, tableware and household utensils, tools and equipment for house and garden, goods and services for routine household maintenance</td>
</tr>
<tr>
<td>HEALTH</td>
<td>medical products, appliances and equipment, out-patient services, hospital services, other treatments, health products and services, other health related incurred costs</td>
</tr>
<tr>
<td>TRANSPORT</td>
<td>purchase of vehicles, operation of personal transport equipment, transport services</td>
</tr>
<tr>
<td>COMMUNICATIONS</td>
<td>postal services, telephone and telefax equipment and services,</td>
</tr>
<tr>
<td>RECREATION AND CULTURE</td>
<td>audio-visual, photographic and information processing equipment, other major durables for recreation and culture, other recreational items</td>
</tr>
</tbody>
</table>
Cluster analysis is intended to sort objects into groups (clusters) that capture the similarity of objects belonging to the same group on one side and dissimilarity of objects belonging to different groups on the other. Applying this analysis is particularly suitable where there occurs a tendency to create natural clusters. This analysis can be performed both on a set of objects, each of which shall be described by the same set of characters that makes sense in a given set of track, and on a set of characters that are characterized by a set of objects, the holders of these characters. (Lukasová, Šarmanová 1985).

The principle of clustering methods is to use a measure of dissimilarity (or similarity) of objects and clusters. The most widely used measure of dissimilarity is the Euclidean distance. According the objective is possible to find between three types of multiple cluster analysis. Hierarchical clustering for the purpose of this work is the chosen way. The process of clustering can be expressed visually through the dendrogram.

### 3. RESULTS

Data obtained from the Statistical Office of the European Commission EUROSTAT database describe spending of households in the EU countries and the composition of the items according to COICOP. Description of the items is mentioned in the table 1 above. Data were treated and prepared for comparison from 2005 to 2011. It is the integration of Central and Eastern Europe into the EU time period and subsequently period of the economic changes caused by financial and subsequent economic crisis. To remove the effects of inflation and to ensure comparability of data across the EU 27 the HICP (Harmonized Indices of Consumer Prices, HICPs) are applied.

Living standards of the society, expressed quantitatively by component 'income situation of households' have immediate impact on the size and structure of household consumption expenditures in each country. Standard of living of the society and living conditions of the society are by economic professionals replaced by "economic maturity". Economic maturity respectively living standards of society is expressed by the GDP per capita using purchasing power parity. Certain substantiation may be seen in the fact that the size of GDP is affected inter alia by general household consumption. The value of economic development of individual EU countries is related to the EU-27 average (which is set to 100%). The higher economic level of the country is the smaller share of total household consumption in GDP and vice versa. We can observe a negative relationship between these two indicators (Figure 2).
Figure 4: Economic development of the EU countries and the share of household consumption on GDP in 2011

Source: Eurostat\(^2\), Eurostat\(^3\), modified

Table 2: Percentage change in GDP in European countries on previous period

<table>
<thead>
<tr>
<th>Country / Year</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013*</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-27</td>
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<td>-4.3%</td>
<td>2.1%</td>
<td>1.6%</td>
<td>-0.3%</td>
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<td>4.9%</td>
<td>4.7%</td>
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<td>0.8%</td>
<td>0.5%</td>
<td>0.6%</td>
<td>0.7%</td>
</tr>
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<td>3.4%</td>
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<td>-5.7%</td>
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<td>5.4%</td>
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<td>0.9%</td>
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<td>1.7%</td>
<td>2.0%</td>
<td>0.0%</td>
<td>-0.1%</td>
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<td>1.7%</td>
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</tr>
<tr>
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<td>2.7%</td>
<td>3.8%</td>
<td>3.8%</td>
<td>2.2%</td>
<td>-1.9%</td>
<td>2.0%</td>
<td>0.9%</td>
<td>1.0%</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

* Note: The estimate for 2013 Source: Eurostat\(^1\), modified

Table 2: Percentage change in GDP in European countries on previous period
The development of GDP (Table 2) in the EU and in member countries shows that the economic crisis has affected all countries mostly in 2009, when only Poland experienced GDP growth by 1.6%. Baltic countries experienced the biggest drop in GDP. In the following years economic crisis significantly affected countries of southern Europe, where GDP continued to decline in following years and the prospects are not favorable even for 2013.

Amount of GDP and total household consumption for selected countries is reported on figure 3. Countries selection is respecting the culture zones of affinities and representatives are Germany, Sweden and Spain, Czech Republic as a representant of the Visegrad group, Norway as a country outside of the EU and finally the average of the EU-27. It is obvious that there is a positive relationship between the development of GDP and total consumption expenditures of households. Household consumption share on GDP in the EU-27 in the period in average is 56 %. The exception is only visible in the Czech Republic in 2008, when the government tried to promote the total consumption and introduced a scrapping on the sale and purchase of new cars. Based on these facts, we can say that the total household consumption is projected by GDP growth and condition of the economy.

Figure 3: GDP development and total household consumption in selected European countries in the years 2005-2011

Source: Eurostat\(^1\), Eurostat\(^3\), modified

Standard of living, which is commonly expressed by indicator of the increase (decrease) in GDP per capita requires the addition of the impact of economic development on the most vulnerable groups of
population, i.e., on the number of households at risk of poverty. Justification can be seen in the fact that many of these households are affected not only by the number of the unemployed, but also by the system of social transfers in society.

The largest number of households at risk of poverty in 2011, lives in Bulgaria (almost 50%), while the most favourable situation from this point of view is in the Czech Republic, where 15.3% of the people live on a poverty line. EU 27 average is around 24% and since 2009 is constantly increasing. The same trend can be observed in most EU countries. Figure 4 shows the annual change in total household consumption and the number of people at risk of poverty in a given year. The results show that the number of people living below the poverty line has no effect on overall household consumption. Reason could be small number of households at risk of poverty and its low share on total household consumption.

![Figure 6: Development of poverty line and changes in total household consumption in selected European countries in the years 2005-2011](source: Eurostat^3, Eurostat^5, modified)

Data that reflect household expenditures on individual commodities listed in Table 1 will be used to monitor the consumption behaviour of households in the EU countries and their changes. To ensure comparability of data, percentage expression was used which eliminates the influence of factors such as population or GDP. On the adjusted data cluster analysis was applied leading to main outcome - dendrograms (Figure 5 and 6), which show the similarities in consumer behaviour in these countries.
The process of cluster analysis forms clusters, linking groups of observed units with similar characteristics. Although different countries are observed their consumer behaviour is similar as the one cluster was created.

On the basis of consumer behavior, enlargement of the European Union in 2004 and the accession of 10 countries has reflected in the creation of clusters. Cluster analysis performed on data from 2005 (Figure 5) shows three larger clusters. One group - the largest - consists of original EU-15 as Belgium, Germany, France, Denmark, Sweden, Netherlands, Great Britain, Austria, Luxembourg, Finland and as the only country of the original "Eastern Europe" is in this group also Czech Republic. The second cluster mainly consists of southern European countries - Portugal, Malta, Cyprus, Spain, Italy, Greece, Slovenia, Hungary and Estonia. The third group is developed by countries of South Eastern Europe - Slovakia, Poland, Lithuania, Latvia, Romania and Bulgaria. In geographical terms, the difference is between the north-western and central European countries, Southern European countries and the countries of Central and Eastern Europe.

In the observed year 2011 (Figure 6) were reflected consequences of the economic crisis and there has been some reallocation of countries into clusters on the basis of expenditure for each item according to COICOP. Data for 2011 of Bulgaria, Romania and Lithuania were not available, so these states are not included in the cluster analysis. Southern European countries - Portugal, Malta, Greece, Spain and Cyprus together with Ireland, created a separate cluster and their consumer behaviour receded even more from advanced EU countries. It is no coincidence that these countries are the most affected by the economic crisis. Within this cluster are gaps in consumer behaviour increasing as Euclidean distance.
connections expand. The biggest difference between the cluster of Portugal and Malta and sub-cluster of Greece, Cyprus, Spain and Ireland is evident.

Another significant change occurred between the states of “Western” Europe. Luxembourg, United Kingdom, Austria and Italy are separated from the rest of North and Western Europe. Conversely they created larger sub-cluster with Slovenia, Hungary, Latvia and Estonia.

There was a convergence of consumer behaviour of households between Western and Northern European countries, as shown in Figure 5. To these advanced European countries Czech Republic, Poland and Slovakia has approached and together they created a significant cluster linking countries of Central, Western and Northern Europe.

4. CONCLUSION

From the performed analysis of consumer behaviour in EU countries in the economic change period can be stated that the conditions under which consumers behave and the factors affecting them are based on the economic situation of the society. In the years 2005 – 2011 was shown that in selected EU countries is a positive relationship between total household consumption and GDP growth. However the effort of the society is to have this positive relationship have an impact on the living standards of households, including those living on the poverty line. The analysis of data showed that the relationship of the total consumption of households and the number of households at risk of poverty is not possible to prove. The justification can be seen in the low number of households at risk of poverty and their low share on total household consumption.
Changes of consumer behaviour during periods of economic changes and its similarity in EU countries was analysed on the basis of information from expenditure items COICOP. For similarity of behaviour cluster analysis is used. Results showed that in the period of economic development of the society (27 EU countries analysed in 2005) clusters are created appropriate to geographic division of Europe respecting cultural affinities zone. The results confirm the view that culture of society, the influence of education in the family and in society, respected habits, lifestyle etc. have a decisive influence on consumer behaviour. Significantly consumption was not affected even by such transformations as accession to the EU, the development of foreign investment, international trade, social system, etc. Conversely the analysis performed in 2011 shows that strong economic changes in society, the global financial and economic crisis, are such intervention in life of households, that there was a regrouping of countries into groups, which respect their similarity in the economic situation more than in cultural practices.

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KNOWLEDGE MANAGEMENT AS A TOOL TO REDUCE PERSONAL MARKET RISKS

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Abstract

Knowledge management is an instrument to ensure knowledge in organisations. The article defines the terms information and knowledge and the different kinds of knowledge. After a description why knowledge is important for organisations the term knowledge management and its objectives and tasks will be investigated. After that one of the first and famous models – the building block model from Probst et al. - will be explained.

Key words: knowledge, knowledge management, implicit and explicit knowledge, strategic and operational knowledge management level, risk management

1. INTRODUCTION

Risk management has to recognize social, political or economic developments early, so that the management has the opportunity to react in time to these developments and to take appropriate measures to ensure the company's success and the continued existence of the company. Studies48 show that entrepreneurs estimate risks regarding human resources to one of the most important risks in a company. This risk results from the current situation on the labour market, which has a relative shortage of highly qualified staff. This problem results not only from the demographic change in societies in Europe and it is not only a problem of education. Companies have to ask themselves, how they can optimally provide their employees with available resources to the competitive challenges of the future.

One aspect of the answer is knowledge. Knowledge is an economic key factor. Knowledge provides the ability to respond to new, unknown and critical situations. The basis for innovations is knowledge and the competitiveness of a company depends on its innovative capability. Knowledge management offers solutions how to deal with the valuable resource of knowledge systematically, so that companies can improve their performance.

In the literature knowledge management is often treated as an independent field of knowledge that mainly because of its affinity with IT (development and management of large amounts of data) is often understood technically oriented. Basically, it comes to the simple question, what information (so-called know-how) is related knowledge (experience) that are often not documented and therefore not available for management. The risk of losing knowledge by individuals is dangerous especially for SMEs, because their processes are not often documented consistently. Risk management is a process that includes all

48 See also pwc (2011), Funk (2011) and Commerzbank (2006).
corporate divisions and therefore it must be concentrated on the question how knowledge management can be used so that such risks are identified and counteracted.

The following article therefore deals with the various requirements of knowledge management in consideration of risk avoidance through loss of person-related knowledge.

2. DEFINITION OF TERMS

In the economic literature the term knowledge is not clearly defined. It is often characterized by token, data and information. *Token* are the lowest level of the hierarchy of terms. They are the smallest data elements and can be letters, digits or special characters. They stand on their own and are disjointed.

Token become *data*, when they get syntax. This means token are arranged according to predefined rules. Data are structured token. They are related, but do not have an intended purpose.

Data becomes *information*, when they are put into a context and used purposeful. Information forms the basis of decisions and thus become an important operational resource in companies.

*Knowledge* is understood as a linking-up of information with a purpose. Information are perceived and selected through individuals. Only through the interpretation of information and linkage with existing information arises knowledge, but the perception of knowledge is subjective.

Knowledge can be divided in three dimensions that illustrates figure 1.

Fig. 1 “Knowledge Cube”\(^{49}\)

Implicit knowledge means knowledge that the carrier is not directly aware. It is difficult to formalize and impart. It is often associated with the following words:

- intuition,
- experience or
- hidden knowledge.

\(^{49}\) See also Warnecke (1998) p. 29.
Explicit knowledge is formulated and reproducible. It can be impart through formal, systematic language (words or numbers). It is logical comprehensible and describable, so that it is referred as specific or methodological knowledge.\textsuperscript{50}

One of the main challenges of knowledge management is therefore to transfer implicit knowledge into explicit.\textsuperscript{51}

Knowledge is personal and therefore individual knowledge of a person. Collective knowledge is knowledge that is not only available for individual person. It can be used by a larger group of people within an organization or even a group of organizations. A transfer of knowledge must take place, when individual knowledge shall get collective.

Internal knowledge is knowledge that is already available in an organization, such as a company. In most cases, a company has more knowledge than known itself (implicit and individual knowledge). External knowledge is knowledge that is relevant to the company’s success, but not available within the company itself. Access to external knowledge can be done in many ways, such as via the Internet, through cooperation with other companies, customers or academic institutions.\textsuperscript{52}

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\textsuperscript{50} See also Frost in Gabler Wirtschaftslexikon: Wissensmanagement.

\textsuperscript{51} See also Warnecke (1998) p. 24.

\textsuperscript{52} See also Frost in Gabler Wirtschaftslexikon: Wissensmanagement.

\textsuperscript{53} See also North (2002) p. 38.

\textsuperscript{54} See also Rehäuser/Krcmar in Schreyögg (1996) p. 10 ff and Frost in Gabler Wirtschaftslexikon: Wissensmanagement.
This importance of knowledge in organizations requires a knowledge-based management. This management has the task to provide, to use, to develop and to ensure necessary knowledge and competencies in order to achieve strategic and operational corporate objectives.

![Diagram: Basic Issues of Knowledge – Oriented Corporate Governance]

**Fig. 3 Basic Issues of Knowledge – Oriented Corporate Governance**

**Normative Level**
- create a corporate culture to be aware of knowledge

**Strategic Level**
- identification and description of the future demand for knowledge

**Operational Level**
- implementation and operationalization of the normative and strategic objectives

**Fig. 4: Targets of Knowledge Management**

3. KNOWLEDGE MANAGEMENT IN COMPANIES

The method for knowledge-based management in organisations is knowledge management. The objective is to make existing knowledge transparent and assessable, because a lot of studies have shown that companies did not use the knowledge that is available to them. Normative, strategic and operational knowledge targets can be distinguished (see also figure 4).

The task of knowledge management is to create infrastructural and organizational requirements so that knowledge can be used, changed or generated. The use of information and communication technologies is necessary to meet the increasing complexity and turnover of employees as knowledge carriers. The tasks of knowledge management can be distinguished in four main aspects:

- linking-up of existing knowledge,
- generation of new knowledge,
- documentation of knowledge and
- transfer of knowledge.\(^{57}\)

Knowledge management has to regard three dimensions and their social and organizational factors.\(^{58}\)

Technology: The appropriate technical support system is critical for a functioning knowledge management. Companies must review their existing information and communication technologies and add more or other if necessary.

Organization: Objects of knowledge management are the people in the organization and the knowledge produced through them. Knowledge management must be self-evident and integrated into all organizational processes and units.

Human: Knowledge is produced by people, they must be willing to share their knowledge and actively bring in the organization. Corporate culture and environment must be designed to support this behavior.

That can be illustrated through the model of Lucko and Trauner (see in figure 5).

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\(^{57}\) See also Schneider (1996) p. 31.

\(^{58}\) See also Lucko/Trauner (2005) p. x.

\(^{59}\) See also Lucko/Trauner (2005) p. x.
The building block model of Probst (see also figure 6) describes the tasks and activities in knowledge management. It is one of the most famous models in this area. The objective is to offer companies a guide for better description of knowledge management and for a better understanding of problems with knowledge.

The building blocks of the model bring the single activities of knowledge management in an overall concept. This concept integrates the elements individual, group and organization and the strategic and operational management levels. The activities are connected with each other, but it is not necessary to follow a certain order or completely. It is important that an activity is not considered in isolation but in relation to the other activities. The strategic management level includes two building blocks Knowledge Objectives and Knowledge Assessment.

Knowledge Objectives can be derived from the corporate objectives and are defined by the management. They are the basis for further planning and enable the subsequent monitoring of implementation. They have to define the direction of the learning process in the organisation and allow to control the success of knowledge management. They must be specified at the beginning and should be clearly formulated. Knowledge objectives must be quantifiable, so that they can be measured and evaluated. The golden rule of goal setting can be used. After this rule objectives have to be SMART. This means Specific – Measurable – Attainable – Relevant – Time Bound.

Knowledge Assessment has the task to monitor the defined knowledge objectives. An important target is to show the benefits of knowledge management, in order to increase the willingness of employees to exchange knowledge. To measure the monetary success of knowledge management is difficult, because knowledge management is a long term process and measurable results occur with delay. Knowledge assessment and their feedback can lead to the adaptation of knowledge objectives; therefore it must refer all traversed process stages.

The operational management level has six building blocks, which describe the implementation of knowledge management in organisations:

1. Knowledge identification means the localization of knowledge, the creating of transparency about existing internal and external knowledge, the identification of knowledge gaps and lack of skills. The knowledge identification is performed on every employee of the organization. It requires the commitment of all persons and departments. The task is not to determine the knowledge inventory of the organisation. All measures should orientate on specific knowledge objectives. The analysis of knowledge should be integrated into the work processes in order to increase the willingness of employees.

2. Knowledge acquisition can occur through external sources. This activity allows increasing the basis of knowledge and filling the identified knowledge gaps. New knowledge is the requirement for innovative products and services and these are necessary for economical growth. Specific procurement strategies for acquisition of knowledge are:

- external knowledge providers (specialists),
- other companies (partnerships),
- experiences of stakeholders (customers, suppliers),
- knowledge products (software, patents, data).

See also and the following paragraphs in this chapter Probst et al (1998) p. 59ff and f-bb Wissensmanagement.
3. **Knowledge generation** is seen as a complementary module for knowledge acquisition. The focus is on the development of new ideas and skills as well as developing new or more efficient processes and products. Knowledge generation should develop existing knowledge and generates new knowledge internally. Conditions for the development of new knowledge are the openness of management to new ideas and a corporate culture with the appropriate responsibility and freedom for the people as well as an open and trusting communication and a culture of learning from mistakes. A fundamental requirement for knowledge development is the exchange of knowledge that is created mostly in dialogues. The task is to create opportunities where employees can network informally or formally.

4. The aim of **knowledge distribution or sharing** is to find out who in the organization needs to know what. Existing knowledge in one part of the organisation can help to solve the problem in a different place in the company. The task is to multiply and ensure knowledge. Technical and organizational requirements are necessary as well as cultural conditions. Particular cultural barriers can prevent knowledge sharing. Reasons for this can be for example the unknown benefits of shared knowledge or egoistic behaviour in difficult economic situations.

5. **Knowledge storing** - Knowledge management has the task to bring knowledge and action in line. This means the transformation of knowledge into decisions or products and services. A key task is to ensure that the knowledge is applied. A number of barriers, such as distrust of foreign knowledge or the retention of traditional routines, must be overcome at first.

6. **Knowledge application** has the task of increasing the awareness for documentation in the organisation, because not documented knowledge is lost over time. Staff reductions, especially from experts or long-term employees, lead to the irretrievable losses of know-how. In particular, SMEs are faced with this problem: the entrepreneurial know-how. Often depends on a few key people here.

![Building blocks of knowledge management](image)

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5. CONCLUSION

It has been shown that knowledge management creates the organizational and infrastructural requirements for a learning organization. It is not the end in itself but is aligned with the corporate objectives. In particular it is a contribution to innovation and value creation in organisations and support for the existing of the company.

Knowledge management has the task to create new knowledge, to consolidate existing knowledge and to share with relevant members of the organization. The understanding of knowledge management as a competitive advantage demands that knowledge management is an integral part of corporate management and represents a cross-section function. This means that knowledge management is taking place in all organizational units and across the value creation chain.

Knowledge management is not a new topic in business administration and before the background of financial, economic and currency crisis and the situation of the employment market it gets a new impact. Studies have shown that it is necessary to improve the risk management in organisations with a particular focus of new future trends as well as economic and political developments. The requirement for a successful risk management is knowledge.

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MODELS OF CITY MARKETING

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Abstract

It is more and more widespread that not only the companies, but regional units and even cities are competing with each other. Marketing activities and economic development are closely related to each other and enhance the efficient operation.

On the basis of the available special literature and other secondary sources, the present study reviews the development and significance of factors influencing the success of city marketing. Besides the improvement of theoretical background I also describe the changes of analysis methods over time and introduce some real practical examples.

Key words: settlement marketing, success factors

1. INTRODUCTION

The analysis of success factors goes back to the 1960s, therefore it is considered to be a relatively young area of research. In the field of settlement marketing, however, the first, relevant studies were published only in the early 1990s. In the frames of my primary research, I examine the key success factors of marketing activities in Hungarian cities, while the current paper aims to summarize and introduce the references that provided the background for this research.

2. METHODOLOGICAL BACKGROUND OF ANALYSIS OF FACTORS AFFECTING SUCCESS

The examination of success factors starts from the presumption that the success or failure of a problem can be led back only to a few key factors. [Schmalen-Kunert-Wandlmaier, 2006]

The empirical research made in this field can be distinguished first of all on the basis of methods analysing the success factors. These factors can be examined with direct and indirect methods.

In case of direct methods of examination, expert inquiries are carried out, during which questions are put directly concerning the variables influencing the success. The research may involve both internal (within the company) and external (customers, competitors, suppliers, distributors, etc.) experts. Originally this method of research has been implemented in the practice by the development of management information system and, according to the experiences, it is gaining more and more importance these days. Direct examinations has got an increasing methodological support and the relevant methods include the creative techniques, such as brainstorming and other surveying techniques, e.g. Delphi method and deep interviews. This type of research is mostly supported by preliminary prepared checklists with the potential success factors. The checklists can be drawn up on the basis of technical literature or the results of interviews with experts.
The direct procedures try to explore the relation between success factors – as independent variables – and the size of success – as dependent variable. They do not investigate the direct reasons of success, but they examine the degree of success as well as the external and internal environment of the company. Further groups can be distinguished according to the method of data search, such as qualitative and quantitative techniques. The qualitative processes result non-quantifiable data and there are qualitative „statements” in the focus, while the quantitative data search gives us quantifiable company data, which can be measured by mathematical methods. Two groups can be distinguished within the quantitative process on the basis of the method of examination: there are explorative (exploring cause and effect structure) and confirmatory (revising cause and effect structure) research methods.

The aim of statistical analyses within the processes is to reveal the success factors and determine their relative importance. In addition to the usual bivariate methods, correlation analysis and pairwise comparison, mostly multivariate procedures are applied (factor analysis, regression, discriminant analysis, cluster analysis).

3. SPECIAL FEATURES OF SETTLEMENT MARKETING

The market oriented approach of city marketing has become into the foreground in Western Europe and Northern America from the late 1970s. In order to create the financial basis for local governments, it was necessary to improve the place of settlements on the market, that is to „sell” the city as a product [Kozma,2002]

In our days, the actuality of region and settlement marketing is due to the fact that the municipalities of settlements should meet new requirements, keep pace with the possibilities offered by the expanding Europe and follow the directions of development dictated by the European Union. On the one hand, it means the maintenance of special image – in other words the touristic attraction - of settlements and, on the other hand, the competitiveness of the given settlement should be increased and made more attractive for potential investors and visitors with the help of development projects.

Comparing the business marketing with settlement marketing, the greatest differences are in terms of the product to be sold [Ashworth-Voogd, 1997]:

- The product is more complex in case of regional and settlement marketing, because the same physical space should be sold simultaneously to different „consumers”, who want to use it for different purposes.

- In case of regional units, the flexibility of some articles and services is missing: it is difficult to convert them according to the needs of existing and potential „consumers”.

- In contrary to the business marketing, the „sale” of regional units does not actually mean the transfer of ownership and does not result the transfer of right of disposal over the settlement services.

- The regional units are located within a spatial environment, a hierarchy and it has a considerable influence on their marketing activities.

- Contrary to company marketing, in case of regional and settlement marketing, the internal target groups are also the „carriers” of regional and settlement marketing.

- The methods and means to be applied are the same as in case of business marketing, but the content and decision process is different.
The companies select their market segments and target groups freely on the basis of efficiency criteria, while the settlements and regions are not free to choose their citizens. Therefore the internal marketing is inevitable.

In case of regional and settlement marketing, the consensus of interest groups is of primary importance. The organization of dialogues between political and private decision makers has a special place in this process. These forms of cooperation are mostly called „Public Private Partnerships” (PPP).

4. EXAMINATION OF FACTORS AFFECTING THE SUCCESS OF SETTLEMENT MARKETING IN TERMS OF TECHNICAL LITERATURE

The development of success factor models of regional and settlement marketing started in the 1990s, that is 30 years later than in the field of business marketing. The present chapter introduces the result of the most important works through processing the technical literature. The first models were built on the study of Porter written in 1991 with the title „National Competitive Advantages”, which examined 100 brands in 10 countries through case studies.

Porter dealt with those factors that may influence the international competitiveness of countries and thus he distinguished the following four factors:

- *situation of existing factors*: (means of production, labour, capital, area) as important elements;
- *demand factors*: what is the demand for products and services on the internal market;
- *existence of relating and supporting sectors*;
- *enterprise strategy structure and competition*.

Based on the work of Porter, Manschwetus in 1995 highlighted the importance of six potential areas concerning the economic competitiveness of regions:

- *Internal possibilities*: material and immaterial sources of the region, such as e.g. labour, infrastructure, landscape and cityscape;
- *Marketing possibilities*: marketing possibilities of the region’s products;
- *Business human resources*: quality of management and level of their qualification in case of the local companies;
- *Possibilities of synergy*: competitive advantages resulted by the cooperation between companies;
- *Possibilities of image building*: image of the region among the key persons and organizations;

As regards the Hungarian technical literature, Kozma summarizes the steps towards successful region and settlement marketing as follows:

- *Situation analysis* (SWOT analysis) The results of the research enable to mark some areas where the city can be able to improve;
- *Determining target group* – it should be explored which factors are primarily considered by these target groups during spatial decisions and what is their image about the city in question;
Based on the results of the former research – the city should actually appear on the market. The organization of different international exhibitions, participation of the city in fairs, supporting and encouraging the city to participate in business fairs and foundation of foreign branches can be part of this process.

Parallel with these steps, of course, permanent efforts should be made to develop the local conditions of the city (creating city image, material and intellectual infrastructure, creating sights that can attract big crowds of people). [Kozma, 1995].

The methods applied in the analysis of success factors of settlement marketing in the 1990s are summarized in Table 1. It is obvious that case studies and interviews with experts were given priority and – regarding statistical methods – the method of bivariate analysis was typically used.

<table>
<thead>
<tr>
<th>Author</th>
<th>Examined population</th>
<th>Evaluation methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hanold/ Honert (1991)</td>
<td>8 towns</td>
<td>interpretation of single cases based on expert questioning</td>
</tr>
<tr>
<td>Schmalen/Stallmeier (1992)</td>
<td>137 spa resorts</td>
<td>bivariate analysis and cluster analysis</td>
</tr>
<tr>
<td>Schaller (1993)</td>
<td>8 towns</td>
<td>elaboration of literature and expert questioning</td>
</tr>
<tr>
<td>Beyer (1997)</td>
<td>60 towns</td>
<td>interpretation of single cases establishment of principles</td>
</tr>
<tr>
<td>Beibst/ Heyne (1998)</td>
<td>56 towns</td>
<td>uni-and bivariate analysis</td>
</tr>
<tr>
<td>Grabow /Hollbach-Grömig (1998)</td>
<td>241 towns</td>
<td>interpretation of single cases establishment of principles</td>
</tr>
</tbody>
</table>


In the 2000s more and more research covered the subject because there was an increasing competition in the „market“ of cities, so the group of factors to examine was expanding.

The work of Bornemeyer in 2002 has meant the greatest methodological progress. Both the data recording and data analysis was carried out in the frames of primary, quantitative method. He used multivariate analysis for the determination of success factors, with the help of which he created rankings and confirmed that the cause and effect relations between success factors can be observed and measured with indices [Schwerdtner, 2008].
He used economic and corporate development theories as theoretical background for his work. The factor groups distinguished by Bornemeyer and the interrelations between them is introduced on Figure 1.

**Figure 1.: Factors that determine the success of town marketing**

The size of success is directly affected by the „situation” and „activity” variables. Internal and external factors can be distinguished in the field of situation variables. Internal situation factors include e.g. the size of the city, the chosen form of corporation, the year of starting city marketing, so all those factors which can be influenced in the long run by those responsible for city marketing. On the other hand, external factors cover those elements which cannot be affected in the frames of the city marketing, but influence the possibilities of action and the size of success (e.g. the intensity of competition).

The „action/activity variables” include the factors directly connected with management tasks.

**Table 2.: Factors determining the success of town marketing in case of Schwabach és Meningen**

<table>
<thead>
<tr>
<th></th>
<th>Schwabach</th>
<th>Meningen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of inhabitants</td>
<td>38862</td>
<td>41111</td>
</tr>
<tr>
<td>The organizational frame of town marketing</td>
<td>alliance</td>
<td>alliance</td>
</tr>
<tr>
<td>Budget</td>
<td>90000 €</td>
<td>37000€</td>
</tr>
<tr>
<td>Examination of success factors</td>
<td>project specific</td>
<td>qualitative</td>
</tr>
<tr>
<td>Factors that determine the success of town marketing</td>
<td>- communication of town management</td>
<td>- Town development is based on long- term, rational decisions, well defined destinations and</td>
</tr>
<tr>
<td></td>
<td>- clearly and rationally defined tasks</td>
<td>- Relying on the increasing participation of inhabitants.</td>
</tr>
<tr>
<td></td>
<td>- tight cooperation with the town</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Bornemeyer (2002): Erfolgskontrolle im Stadtmarketing

**Source:** on the basis of Best-practice-Leitfaden Stadtmarketing 2009
The moderator variables are the results of activities performed in order to achieve success, but have no direct impact on the size of success. These form the intermediate targets.

As regards practice, the factors learnt from the technical literature are reflected, too. Out of the excellent German samples published in Best – practice Leitfaden Stadtmarketing, I detail only the two samples of Schwabach and Meningen in Table 2.

5. CONCLUSIONS

Both the theoretical and practical examples prove that the success of settlement marketing can be affected by external and internal factors. The secondary sources detailed above gave the theoretical background for my primary questionnaire survey, which was performed among Hungarian cities. On the basis of the special literature I gave priority to the examination of the following areas:

- Examination of the qualities of the city (on the basis of indices)
- Examination of targets, group of assets serving the realization;
- Target groups
- Composition of means to be applied in order to reach target groups
- Actors, stakeholders
- Structure and staff
- Possibilities of fund raising

The data retrieval is going on at present and will be finished in June 2012. My objective is to explore the special Hungarian features of success factors of settlement marketing and to create a model.

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INCOME SITUATION IN SELECTED EU COUNTRIES BASED ON EU SILC
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Abstract
The presented paper provides an analysis of income situation of selected countries in European Union. Monitoring was carried out for the years 2005–2011. The given time frame was due to the possibility of obtaining a data base for the analysis of the income situation of households, provided by the European Union Statistics on Income and Living Conditions (EU SILC), according to an EU common methodology. The paper further analyzes the income differentiation of Czech, Finish, French, Spanish and British households. The used analysis indicators include the average disposable income per equivalent household member, Gini coefficient to measure income inequality, poverty threshold, and poverty depth indicator (Sen coefficient). The calculated indicators show the different economic and social situation in the countries.

Key words: EU SILC, income situation, income inequality, poverty

1. INTRODUCTION
Income situation of households has a keen importance to scientific analyses for several reasons. First of all it is a decisive factor in determining living standards of households and it is a reflection of socio-economic situation of a country. In recent years, the structure of incomes of the population has developed in accordance with changes in social and economic level of our country. There was a significant increase in income redistribution, which also had an impact on living standards of the population (Vavrejnová, 2002).

Living standards can be defined as “the level of well-being (of an individual, group or the population of a country) as measured by the level of income (for example, GNP per capita) or by the quantity of various goods and services consumed” (Beyond Economic Growth, 2004).

But we cannot say that the same amount of consumption means the same standard of living, because the volume plays an important role too. Another important aspect is quality of life, representing people’s overall well-being. “Quality of life is difficult to measure (whether for an individual, group, or nation) because in addition to material well-being (see standard of living) it includes such intangible components as the quality of the environment, national security, personal safety, and political and economic freedoms” (Beyond Economic Growth, 2004).

Rating of living quality is very complex. GDP per capita or GDP growth of living standards fail to account adequately (Kabát, 2007). Also, this economical look is necessary to be enriched with knowledge of social research (Turčínková, Stavková, 2011). The market research is carried out through various surveys, which are devoted to leisure, health and education (Stávková et al., 2007). The most popular methods which characterize the consumer: are a lifestyle analysis AIO (activities, interests and opinions) and VALS typology (values and lifestyle) from SRO research institution. In the Czech Republic, it is STEM / MARK that focuses its research also on examining the living conditions and styles (Bártová, 2007).
Since the income situation of each household is completely different, it is also understandable that also their standard of living will be different. Particularly crucial is net disposable income of households, which can then be used for consumer spending or savings.

To assess the quality of life of a country’s population is not easy. This is a fairly complex issue that is influenced by many factors. Often economic growth connects with the growth of standard of living. However, the GDP indicator is useful, if we compare the performance of the country in production. There are many negative economic issues (divorces, abortions, lawsuits, etc.) that reduce the standard of living of a particular country; on the other hand, they also increase the GDP. However, some beneficial activities that could increase GDP are not counted in. The discrepancy between the social growth of a society and its needs is more than obvious (Vlček, 2005).

Society is constantly evolving and changing its economic and social structure. Bradshaw et al. (2004) suggest that “it is useful to distinguish between risk factors, which signal the greater vulnerability of a category of individuals, and triggers which have a direct causal impact.” Each country should try (within its fiscal policy) influence the lives of its citizens through redistribution of social transfers in order to reduce inequalities among individuals and prevent the consequent social exclusion. The most common reason, when individual is at risk of social exclusion is the lack of long-term or low income, which can because of employment. If the household head is unemployed, family suffering, struggling with financial problems and it may be that its income would fall to the level of poverty threshold (Kotýnková, Němec, 2003).

National poverty line represents the income level below which people are defined as poor. “The definition is based on the income level people require to buy life’s basic necessities — food, clothing, housing — and satisfy their most important sociocultural needs. The poverty line changes over time and varies by region.” It is also called subsistence minimum. “Official national poverty line is determined by a country’s government” (Beyond Economic Growth, 2004).

Whelan and Maitre (2006, p. 310) add that “the EU social policy perspective continues to define being at risk of poverty in purely relative terms as falling below a percentage of median income.”

The Czech Republic as well as all other EU member states uses for the calculation of poverty threshold unified methodology, which equals to 60% of the equivalised (normalized) disposable income of household member (Atkinson et al., 2005).

The issues relating to inequality, social exclusion and poverty need to be address more intensively and go deeper. Countries with a high index of income inequality are usually dominated by the highest classes. People in these classes are in control of all political power, they influence government flows, tax and welfare systems. For individuals from lower classes it is almost impossible to move to higher class, get higher education and gain a higher income (Todaro, Smith, 2009). Each developed country can help individuals from the lower classes through its social policy, which not only can affect the living conditions of inhabitants, but it can also help reduce income inequality among households and ensure basic needs.

The EU-SILC data for Czech Republic allow analyses among various types of households, where the sorting characteristic is the membership of a particular household in a social group or the number of household members. Income differentiation of households of different types of households can be considered as valuable information resulting from the conducted analyses. The results show that long-term poverty threatens the most single-parent households (with one adult and at least one child); then older person households and the third most threatened household category are households with more than three children (Turčínková, Stávková, 2011).
In the EU social policies of individual member countries are in their own competence and the EU’s role in the field is limited largely to a coordination function. The divergence in living standards between regions and member states is, however, the main focus of interest for EU regional policy. One of the goals of the policy is “to promote economic and social cohesion by bringing about convergence in economic development and living standards between the rich and poor member states and regions of the EU” (Whelan, Maitre, 2006, p. 310).

The great value of the EU-SILC data set stems from the fact that it offers the first opportunity to conduct an analysis covering all EU countries, thus, it allows comparisons of multidimensional outcomes with those deriving from the conventional relative income poverty approach. The results provide a comparison of levels and socio-economic patterns of disadvantage in relation to income poverty and social exclusion, with consumption deprivation being the key differentiating factor. Whelan and Maitre (2009, p. 25) stress that “no single indicator is likely to prove adequate in capturing the diversity of experience of poverty and social exclusion in an enlarged European Union. In light of this we have considerable sympathy with those who argue for the need to supplement nationally based indicators with EU-wide indicators”.

The first economist, who studied the relationship between inequality and economic growth, was Simon Kuznets (Perkins, 2006). Longford et al. (2010) explain that monitoring income inequality as well as other indicators related to personal income distribution within European countries is dependent on comparable and internationally harmonized estimates at regional level for the member states. Most frequently used sources for aggregating personal income data by geographical areas of individual residences are harmonized household-level surveys.

Currently, when debates on reducing public spending and raising taxes take place, it is necessary to focus on groups that may drop below the poverty threshold and become seriously challenged because of their level of income. It is necessary to identify factors that could lead to a negative shift in disposable household income. The main purpose of this paper is not only to identify regions of the country that are most at risk of poverty and identify the income inequality, but also identify the regions with flows of largest share of social transfers.

2. METHODOLOGY

The EU-SILC (European Union Statistics on Income and Living Conditions) project is based on primary investigations of income levels. It covers both objective and subjective aspects of income, poverty, social exclusion, and other living conditions. In this paper we are focused on the objective site of income level.

The selected period for analysis includes the years of 2005-2011. In 2005, the survey was also commenced in the Czech Republic. The year 2011 is the last one, which the data for all countries are available for.

For the purpose of this paper, four countries were selected as representatives of four zones of cultural kinship defined by Světlík (2003). These representatives are Finland (FI), France (FR), Spain (ES) and United Kingdom (UK). The Czech Republic (CZ) was added to these countries. The data provided by Eurostat were used as the main sources for comparisons.

The basic survey unit is the household. Table 1 shows minimum effective sample size for every country.
Table 1: Minimum effective sample size in the survey EU SILC

<table>
<thead>
<tr>
<th>Country</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ</td>
<td>4 750</td>
</tr>
<tr>
<td>FI</td>
<td>4 000</td>
</tr>
<tr>
<td>FR</td>
<td>6 500</td>
</tr>
<tr>
<td>ES</td>
<td>7 250</td>
</tr>
<tr>
<td>UK</td>
<td>7 500</td>
</tr>
</tbody>
</table>

Source: Eurostat (2013)

In all analyses we use as the basic variable - the equivalized household income, which is obtained by dividing the total household income by its modified OECD equivalence scale. According to this scale, the first adult member of the household counts as 1.0, and all other adult members as 0.5, each child (below 14 years of age) is accorded the weight 0.3. For example, a household with three adults and two children has equivalized size 1 + (2 * 0.5) + (2 * 0.3) = 2.6, so that if their total income is 52,000 Euro, then the equivalized household income is 20,000 Euro (Longford et al., 2010).

To measure income inequality Gini coefficient was used. Mathematically for the expression of its value there is used relationship, where $x_i$ is the cumulative value of the population variable and $d_i$ is income variable:

$$G_{ini} = 0.5 - \int_{0}^{1} F(x,d)dx$$

Absolutely equal distribution of income Gini coefficient gives the value $G = 0$. If $G$ equals 1, the society experiences an absolute inequality, and all income goes to only one household.

The variables used will be the statistical characteristics of mean and median. The poverty line (threshold) is based on the EU definition of 60% of the national median. This value was then used to determine the number of households at risk of poverty in every country. An important indicator is also the depth of poverty, since it presents how much money households need in order to get above the poverty line (Proctor, Dalaker In: Turčínková, Stávková, 2011). This calculation requires that we know the poverty line ($A$) and the average income of households living under the poverty line ($a$). The poverty depth factor, which is in the relative terms known as the Sen poverty index, can be calculated using the following formula:

$$Sen\ index = \frac{A - a}{A}$$

The more the value approaches 1, the more severe the poverty is.

This paper uses comparative approaches of descriptive statistics. The paper also applies regression analysis to determine the dependency between the poverty rate (dependent variable) and other chosen...
indicators (independent variable). The F-test at the significance level of $\alpha = 0.05$ has been used to determine the regression function type suitability.

3. RESULTS

The income situation influences financial level of every household. Within the bounds of research of EU SILC is most important characteristic of average equivalent of income and also it’s median. The development of incomes expressed in EUR PPS in given period of time as well as median of each year is described in Table 2. All values refer to one month.

Table 2: Income situation of households (in PPS) in period 2005 – 2011

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ</td>
<td>PEMP v PPS</td>
<td>728</td>
<td>776</td>
<td>835</td>
<td>910</td>
<td>954</td>
<td>910</td>
<td>935</td>
</tr>
<tr>
<td></td>
<td>median v PPS</td>
<td>637</td>
<td>688</td>
<td>737</td>
<td>810</td>
<td>842</td>
<td>804</td>
<td>826</td>
</tr>
<tr>
<td></td>
<td>index number – PEMP v %</td>
<td>100.00</td>
<td>106.55</td>
<td>114.75</td>
<td>124.95</td>
<td>131.05</td>
<td>125.01</td>
<td>128.43</td>
</tr>
<tr>
<td>FI</td>
<td>PEMP v PPS</td>
<td>1 318</td>
<td>1 367</td>
<td>1 412</td>
<td>1 534</td>
<td>1 588</td>
<td>1 563</td>
<td>1 629</td>
</tr>
<tr>
<td></td>
<td>median v PPS</td>
<td>1 178</td>
<td>1 237</td>
<td>1 270</td>
<td>1 380</td>
<td>1 440</td>
<td>1 418</td>
<td>1 472</td>
</tr>
<tr>
<td></td>
<td>index number – PEMP v %</td>
<td>100.00</td>
<td>103.71</td>
<td>107.13</td>
<td>116.42</td>
<td>120.54</td>
<td>118.63</td>
<td>123.6</td>
</tr>
<tr>
<td>FR</td>
<td>PEMP v PPS</td>
<td>1 379</td>
<td>1 415</td>
<td>1 413</td>
<td>1 720</td>
<td>1 739</td>
<td>1 716</td>
<td>1 796</td>
</tr>
<tr>
<td></td>
<td>median v PPS</td>
<td>1 208</td>
<td>1 250</td>
<td>1 264</td>
<td>1 464</td>
<td>1 473</td>
<td>1 463</td>
<td>1 504</td>
</tr>
<tr>
<td></td>
<td>bazic index – PEMP v %</td>
<td>100.00</td>
<td>102.62</td>
<td>102.49</td>
<td>124.78</td>
<td>126.13</td>
<td>124.51</td>
<td>130.24</td>
</tr>
<tr>
<td>ES</td>
<td>PEMP v PPS</td>
<td>1 114</td>
<td>1 181</td>
<td>1 240</td>
<td>1 309</td>
<td>1 309</td>
<td>1 257</td>
<td>1 224</td>
</tr>
<tr>
<td></td>
<td>median v PPS</td>
<td>968</td>
<td>1 047</td>
<td>1 093</td>
<td>1 162</td>
<td>1 165</td>
<td>1 110</td>
<td>1 075</td>
</tr>
<tr>
<td></td>
<td>index number – PEMP v %</td>
<td>100.00</td>
<td>106.07</td>
<td>111.33</td>
<td>117.48</td>
<td>117.54</td>
<td>112.85</td>
<td>109.87</td>
</tr>
<tr>
<td>UK</td>
<td>PEMP v PPS</td>
<td>1 720</td>
<td>1 718</td>
<td>1 837</td>
<td>1 856</td>
<td>1 699</td>
<td>1 708</td>
<td>1 699</td>
</tr>
<tr>
<td></td>
<td>median v PPS</td>
<td>1 408</td>
<td>1 462</td>
<td>1 565</td>
<td>1 532</td>
<td>1 424</td>
<td>1 422</td>
<td>1 400</td>
</tr>
<tr>
<td></td>
<td>index number – PEMP v %</td>
<td>100.00</td>
<td>99.90</td>
<td>106.83</td>
<td>107.92</td>
<td>98.77</td>
<td>99.32</td>
<td>98.78</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on Eurostat data (2013)

The sharpest increase in the average income was from 2005 to 2011 in France, by 30.24%, while a slight decrease of 1.22% occurred among households in the UK. In 2011 the highest income were those of households in France, accounting to 1,796 PPS, which is 1.9 times higher than in the Czech Republic. Just in the Czech Republic over a period incomes are maintained at the lowest level among the selected countries, in spite of its significant growth since 2005. The year 2009 brought for the UK decline in income compared to 2008, for Spain the same level.
A very important part of their income comes from social transfers. Each EU country has the opportunity to respond independently to their own social problems. The EU has created only minimum social standards designed to ensure that within all Member States the best possible level of social protection is available. Expenditure on social protection, aimed at easing the burden of citizens, expressed as a ratio to GDP are known as social quota. The minimum expenditure on social protection in the Czech Republic (20.43% of GDP in 2011), while the highest in France (33.06%).

At global, European level, but also at the national level, come up in the society to adverse phenomenon, which is income inequality. It is based on an analysis of the income of all households. Constitutes a major area of interest of social policy, which is especially important in terms of decision in the redistribution of income.

The most commonly used indicator of inequality of income distribution is the Gini coefficient. When the value of the coefficient is closer to one, the income differences are greater in the state. By contrast when the value of the coefficient is coming closer to zero, it means greater equality in income. Looking at the value of this coefficient in Figure 1 it can be concluded that the selected countries are kept within limits that are indicative of relatively low income inequality.

![Figure 1: Gini coefficient](Figure 1: Gini coefficient)

Source: Eurostat (2013), prepared by authors

The Czech Republic, along with Finland maintain throughout the period of the lowest values. In the case of the UK in 2005, reaching the highest Gini coefficient values among selected countries (0.35), which is close to the upper limit of relatively low income inequality. The average level of the Gini coefficient in the EU Member States in 2005 and 2011 was 0.30. Above this value was maintained throughout Spain and the United Kingdom, suggesting that in these two countries prevails above average income inequality.

In the Czech Republic from 2005 until 2011 it is possible to observe a gradual decrease in the coefficient values from 0.26 to 0.25. On the contrary, in France the figure rose. In the case of the United Kingdom, the decrease rate from 0.35 to 0.33, gaining the second position behind Spain, by which an opposite development was observed, and a growth rate from 0.32 to 0.34.

Very similar results showing S80/S20 ratio, which indicates how many times the incomes of households are in the top quintile compared to income of households in the bottom quintile. Confirms that Spain and the United Kingdom are the countries with the highest inequality of income. In Spain in 2011,
household’s income in the top income quintile was 6.8 times higher than household’s income in the bottom quintile.

<table>
<thead>
<tr>
<th>Country</th>
<th>Coefficient S80/S20</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
</tr>
<tr>
<td>CZ</td>
<td>3.7</td>
</tr>
<tr>
<td>FI</td>
<td>3.6</td>
</tr>
<tr>
<td>FR</td>
<td>4.0</td>
</tr>
<tr>
<td>ES</td>
<td>5.5</td>
</tr>
<tr>
<td>UK</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on Eurostat data (2013)

In the area of social policy the increased attention is delivered to households that are considered poor. Searching for different ways to help them in overcoming their situation. The issue of poverty is addressed by various organizations around the world. The same situation is in the EU. It is essential that the group of households at risk of poverty are most at risk of social exclusion, as well.

Among the households at risk of poverty belong those, whose disposable equivalised income per member is less than 60% of the median. The table below presents monthly poverty threshold, expressed in PPS, the percentage of households at risk of poverty and the average income of these households in the different member countries, also in PPS.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ</td>
<td>Monthly poverty threshold (in PPS)</td>
<td>382</td>
<td>413</td>
<td>442</td>
<td>486</td>
<td>505</td>
<td>483</td>
<td>496</td>
</tr>
<tr>
<td></td>
<td>Households at risk of poverty (in %)</td>
<td>10.4</td>
<td>9.9</td>
<td>9.6</td>
<td>9.0</td>
<td>8.6</td>
<td>9.0</td>
<td>9.8</td>
</tr>
<tr>
<td></td>
<td>The average income of households at risk of poverty (in PPS)</td>
<td>293</td>
<td>326</td>
<td>343</td>
<td>375</td>
<td>386</td>
<td>364</td>
<td>408</td>
</tr>
<tr>
<td>FI</td>
<td>Monthly poverty threshold (in PPS)</td>
<td>707</td>
<td>742</td>
<td>762</td>
<td>828</td>
<td>864</td>
<td>851</td>
<td>883</td>
</tr>
<tr>
<td></td>
<td>Households at risk of poverty (in %)</td>
<td>11.7</td>
<td>12.6</td>
<td>13.0</td>
<td>13.6</td>
<td>13.8</td>
<td>13.1</td>
<td>13.7</td>
</tr>
<tr>
<td></td>
<td>Average income of households at risk of poverty (in PPS)</td>
<td>568</td>
<td>598</td>
<td>613</td>
<td>662</td>
<td>689</td>
<td>688</td>
<td>767</td>
</tr>
</tbody>
</table>
Low poverty line during the period from 2005 to 2011 was held in the Czech Republic, which until 2009 had an increasing trend, but in 2010 in the comparison to previous year the decline of 4.36% was observed. Similar were the cases in Finland, France and Spain. In the UK, the drop of line, below which households are in poverty, showed for the first time in 2008 and continued until 2010. Upper limit, to which could the household become at risk was established between 2005 and 2008 in the UK, but because of its decline in 2009 compared to 2008 by 7.07% to the fore France with slightly increasing the income risk.

Concerning the percentage of income-risk households, the Czech Republic throughout the period is the state with the lowest poverty rate, which gradually decreases from 10.4% in 2005 to 8.6% in 2009 and subsequently in 2011 there is a increase by 0.8%. Similar situation is in France, where from 2005 to 2009 after a gradual decline in the poverty rate from 13% to 12.7%. In 2011 it was about 14%. The opposite trend can be observed in Finland, where the percentage of households at risk of poverty since 2005, gradually increasing from 11.7% to 13.8% in 2009 and the following year was reduced by 0.7%. The highest percentage of households at risk of poverty during the period is shown in Spain, where there is an increase from 19.8% in 2005 to 21.8% in 2011. The UK is the second state with the highest poverty rate, which, however, occurs from 2005 to its fall from 18.8% to 16.2% in 2011.

In consideration that the total number of households at risk of poverty in the EU in 2011 was at 16.9%, it can be said that within those countries are Spain and the United Kingdom countries with above-

<table>
<thead>
<tr>
<th>Country</th>
<th>Poverty threshold monthly (in PPS)</th>
<th>725</th>
<th>750</th>
<th>758</th>
<th>879</th>
<th>884</th>
<th>878</th>
<th>902</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR</td>
<td>Households at risk of poverty (in %)</td>
<td>13.0</td>
<td>13.0</td>
<td>13.1</td>
<td>12.7</td>
<td>12.7</td>
<td>13.4</td>
<td>14.0</td>
</tr>
<tr>
<td></td>
<td>Average income of households at risk of poverty (in PPS)</td>
<td>563</td>
<td>573</td>
<td>578</td>
<td>669</td>
<td>683</td>
<td>667</td>
<td>749</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Poverty threshold monthly (in PPS)</th>
<th>581</th>
<th>628</th>
<th>656</th>
<th>697</th>
<th>699</th>
<th>666</th>
<th>645</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES</td>
<td>Households at risk of poverty (in %)</td>
<td>19.8</td>
<td>20.0</td>
<td>19.7</td>
<td>19.7</td>
<td>19.5</td>
<td>20.7</td>
<td>21.8</td>
</tr>
<tr>
<td></td>
<td>Average income of households at risk of poverty (in PPS)</td>
<td>398</td>
<td>429</td>
<td>451</td>
<td>456</td>
<td>414</td>
<td>376</td>
<td>447</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>Poverty threshold monthly (in PPS)</th>
<th>845</th>
<th>877</th>
<th>939</th>
<th>919</th>
<th>854</th>
<th>853</th>
<th>840</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>Households at risk of poverty (in %)</td>
<td>18.8</td>
<td>19.0</td>
<td>18.7</td>
<td>19.1</td>
<td>17.3</td>
<td>17.1</td>
<td>16.2</td>
</tr>
<tr>
<td></td>
<td>Average income of households at risk of poverty (in PPS)</td>
<td>599</td>
<td>622</td>
<td>675</td>
<td>671</td>
<td>617</td>
<td>610</td>
<td>661</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on Eurostat data (2013)
average number of poor households. On the contrary Czech Republic is the country with the lowest incomes of vulnerable households across the EU.

The depth of poverty is an important indicator by which you can specify how much money is necessary to deliver to household to get above the poverty line. By this is therefore expressed the income deficit of households, which is determined as the difference between a defined poverty line (A) and middle-income of households that are below this line of poverty (a). Certainly it is essential to deal with households whose poverty is deeper and consequently with those for which to cross the poverty line is necessary just a smaller amount of monetary units. When the poverty is deeper, it is more relevant to society. Calculating the depth of poverty in the different countries between 2005 and 2011 are given in Table 5 The last column is Sen coefficient, which indicates the relative expression of the depth of poverty.

Table 5: Depth of poverty

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>A (v PPS)</th>
<th>a (v PPS)</th>
<th>A-a (v PPS)</th>
<th>(A-a)/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZ</td>
<td>2005</td>
<td>382</td>
<td>293</td>
<td>89</td>
<td>0.23</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>496</td>
<td>408</td>
<td>88</td>
<td>0.18</td>
</tr>
<tr>
<td>FI</td>
<td>2005</td>
<td>707</td>
<td>568</td>
<td>139</td>
<td>0.20</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>883</td>
<td>767</td>
<td>116</td>
<td>0.13</td>
</tr>
<tr>
<td>FR</td>
<td>2005</td>
<td>725</td>
<td>563</td>
<td>162</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>902</td>
<td>749</td>
<td>153</td>
<td>0.17</td>
</tr>
<tr>
<td>ES</td>
<td>2005</td>
<td>581</td>
<td>398</td>
<td>183</td>
<td>0.31</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>645</td>
<td>447</td>
<td>198</td>
<td>0.31</td>
</tr>
<tr>
<td>UK</td>
<td>2005</td>
<td>845</td>
<td>599</td>
<td>246</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>2011</td>
<td>840</td>
<td>661</td>
<td>179</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Source: authors’ calculations based on Eurostat data (2013)

Since Sen coefficient for all of the states is more likely closer to the value 0 rather than 1, it is possible to say that we talk about mild poverty. Coefficient reaches the maximum value in 2005 and in 2011 in the case of Spain. The Lowest depth of poverty in Finland (0.20 for 2005 and 0.13 for 2011).

Poverty in society arises from the interplay of various factors that cause it, or continue to deepen it. It can be expected that with rising unemployment, the number of poor will growth. On contrary with rising GDP per capita social spending and state should fall. At this point is through regression analysis takes into account the data for the EU countries for the period 2005 - 2011 sought relationships between poverty and selected indicators, which are:

- GDP per capita expressed to the EU average (%)
- Income inequality expressed by quintile ratio S80/S20,
- Unemployment (%)
Simple regression that examine the impact of each variable on poverty identifies the high significance addiction. The most significant impact on poverty is income inequality. S80/S20 quintile ratio is 85% ability to explain poverty. Increasing income inequality, measured by the coefficient of S80/S20 unit is connected with more than 3% increase in the number of vulnerable households incomes. Between GDP per capita and poverty is 12.7% negative dependence and low positive addiction in the case of social quotas at a level of 20.26%. Unemployment does not have any influence on poverty.

Figure 2: Regression function
Source: creation and calculations of authors based on data from Eurostat (2013)

Then it is followed by the multiple regression, which examines the impact of all the aforementioned variables on poverty. Unemployment variable was removed from the regression equation for its immateriality, and so the regression equation has following form:
poverty = 2.2143 – 0.0036 (GDP/Per capita.) + 3.0628 (S80/S20) – 0.0579 (social quota)

Number of cases: 133    \( R = 0.9278 \)    \( P = 0.0000 \)    \( F = 265.81 \)

The coefficient of determination has value of 0.8575, which means that there is a high level of variability that is described by the quantified model.

4. CONCLUSION

Household income is closely related to living standards. It determines what we can afford and how we live our lives. Of course, there are other factors that have an impact on this. In this paper, however, we focus just on the income situation in the period 2005-2011 in selected countries of the European Union.

In the first four years was highest income in the UK, since the year 2009 in France. In the Czech Republic were the incomes lowest for the whole period, although there was a significant increase between 2005 and 2011 by 28.43%. French households in 2011 had almost twice higher incomes than Czech. Between 2009 and 2010 occurred in all countries except the UK decrease in average income, which may be the effects of the economic crisis. Since 2008, a decrease of 9.2% in income of British households that was not been saved even by or next 0.5% increase in 2010. In the UK, the impacts of the crisis showed faster than in other states. United Kingdom in this period found itself in a deepening recession. Property prices fell by a third, the British pound depreciated and the benchmark interest rate was reduced by the National Bank of Great Britain to 5.3.2009 to 0.5% that represents a historic low.

Information about the possible differences can be obtained by different ways. The most famous is the measurement with the Gini coefficient. Its values reveal that income inequality is lowest in the Czech Republic and Finland, higher than the European average are in Spain and in the United Kingdom. In 2011, the Gini coefficient was at 0.33 in the UK, representing a decrease from 0.35 in 2005. In Spain, on the contrary, it was observed a increase from 0.32 to 0.34. Similar results are provided by S80/S20 ratio, which measures the ratio of income of the top quintile to the bottom quintile. It may be noted that in all countries there is a moderate income inequality. High values of the index are related mostly to developing countries, on the contrary, if its values were too low, demotivating social equality could occur.

Attention was paid to households living below the poverty line, which was calculated on the basis of Eurostat methodology as 60% of median equivalent income. The development of the poverty level was in line with the evolution of average income. The highest risk to get among the poor households is in France, because there is a poverty line for 2011 at 902 PPS, which is by 82% more than in the Czech Republic.

Low risk of poverty rate of households across the EU is in the Czech Republic, and since 2005 declined from 10.4% to 8.6% in 2009 and then increased to 9.6% in 2011. A similar trend was also observed in France, where in 2011 it was 14% of poor households. In Finland, paradoxically opposite development was observed, until 2009 the percentage of households living in poverty increased, and in 2010 fell to 13.1%, but later the subsequent increased to 13.7% was observed. More households at risk of poverty than the European average of 16.2% in 2011 lived in the UK (17.1%) and even more in Spain (21.8%).

In addition to poverty is also necessary to adumbrate its depth, it is very essential to know whether for one household it is enough for getting out of poverty gape one or thousand units of currency. This can evaluate also social policy. Of course, the behavior of poor consumers will be more different from
others, we can expect different preferences, but it also depends on how far below the poverty line the household is and also what is their disposable income. Based on the calculation of Sen coefficient the poverty depth is lowest in Finland. In the Czech Republic, while the poverty rate is lowest, the depth of poverty is higher than in Finland. Spanish households, of which most poor from the selected countries suffer also the deepest poverty.

In the future, it is necessary to provide more detailed analysis, particularly to focus on the income situation of social groups according to economic activity. Also interesting is to watch given development with regard to the type of home or education. With such analysis is possible as follows: to assess the effectiveness of social transfers, which for many people make up a large part of the income.

Factors that influence the development and deepening poverty are different. For regression analysis in which the dependent variable was the number of poor households as a percentage, were selected four explanatory variables, namely GDP per capita ratio $S_{80}/S_{20}$, unemployment and social quota. In all cases by simple regression was demonstrated highly significant dependence. With increasing GDP per capita and poor social quota the number of poor decreases, with increasing unemployment rises. However, these dependencies are weak. This observation can be inclined to the opinion of many authors, the GDP per capita is not entirely appropriate instrument to measure the standard of living. Social quota does not affect the number of poor directly, but through income inequality, which means that social policy in many countries mastered inappropriate redistribution of income. Very strong influence on the evolution of poverty in the EU has income inequality. In countries with high income inequality is generally flattening of hierarchies of classes, high-class identity and of course the high rate of poverty. An example is Spain. There is therefore really need to focus on reducing income disparities between social groups, broadening and strengthening the middle class in society, and hence poverty reduction.

An interesting fact is that despite the numerous publications that mentioned unemployment as the main cause of the increasing number of poor, simple regression analysis revealed only a weak dependence on multiple variable regression was removed from unemployment due to immateriality. The main reason is to look for the impact of delayed effect of unemployment on poverty. During the first few months after the bounce from employment are unemployed people supported by unemployment benefits from the state and also often have income in the form of severance pay. Increasing poverty is therefore delayed to affect.

Very often the recession affects the most vulnerable groups of people. It is therefore essential that the correct social policy of each country is set. Given that within the EU exists specific freedom in this field, each state has set conditions according itself, that depend on the cultural development of given state. However, it is very difficult to identify them so that the system is not abused, social benefits were attributed to those who really need them and at the same time to avoid unwillingness to work. Social quota, which expresses the ratio of social benefits to GDP is the highest in France, Finland and the UK, that in states with the highest standard of living. It means that the standard of living are influenced by social policy, because the role of each state is to ensure rising standards of living of its citizens, thereby increasing state’s competitiveness, which has a more significant impact on the national economy. However it is important to mention that not only substantial amount of money invested in social policy is important, but also the redistribution of income and related right aiming of social transfers.

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SOME QUEUING SITUATIONS IN BUSINESS

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Abstract

The Queuing Theory has many applications in Economics and Business research on the effectiveness of any queuing system. In this paper we consider some interesting applications for simple and parallel multichannel systems. There are two model problems in Business. In both problems are calculated some major features of the systems. From mathematical point of view are made conclusions about the solutions. But from practical point of view are recommended another near solutions. A computer code for calculate all the main features of queuing systems in MATLAB is given.

Key words: operations research, queuing theory, queuing systems, MATLAB

1. INTRODUCTION

A queue, for queuing theory purposes, can be defined as an aggregation of items awaiting a service function. In our everyday lives we tend to think of queues as relating to people only. In dealing with queuing theory we must broaden our viewpoint considerably. Queues may consist of people, cars, components awaiting machining, requests on computer networks, planes, indeed any discrete items. A queuing system can be divided into four elements thus:

ARRIVALS $\rightarrow$ QUEUE $\rightarrow$ SERVICE $\rightarrow$ OUTLET

a. Arrivals. This is the element concerned with how items (people, components, cars, etc) arrive in the system. Generally when dealing with queuing problems we are concerned with the rate of arrivals or the time gap between arrivals, which amounts to the same thing. Here we consider only discrete item arrivals and does not consider continuous arrivals such as, for example, oil flow in a pipeline. The assumption in queuing problems is that arrivals occur singly i.e. no simultaneous arrivals are possible. Because arrival rates in most queuing situations are impossible to control, the random arrival pattern is most common. Study has indicated that in many circumstances the random arrival pattern can be approximated by a Poisson distribution. The average rate of arrivals per unit of time we denote by $\lambda$. For example, if 10 staff on average visit a store each hour, then $\lambda = 10$, and if every 5 minutes a plane arrives at an airport, then $\lambda = 12$.

b. Queue. This element is concerned with what happens between the arrival of an item requiring service and the time when service is carried out. This is known as the queue discipline which is generally assumed to be First Come, First Served.

c. Service. This element is concerned with the time taken to service a customer. The time may be constant (eg. a machine process) or more likely, it will vary. Service times may be reduced by better
training, more personnel, more or better equipment, all of which increase costs. Typically a queuing problem involves striking a balance between the cost of making reductions in service time and the benefits to be gained from such a reduction. The time taken to service an item may be constant but, more likely, the time will vary. It may be possible to control the average service time (by training, better equipment) but the performance achieved for any given customer will almost certainly vary. To be able to tackle queuing systems mathematically the assumption often made is that service times form a negative exponential distribution. The average rate of service per unit of time we denote by \( \mu \). For example, if a cashier at a supermarket is able to deal with, on average, 480 customers per 8 hours shifts, then \( \mu = 60 \), and if average required 6 minutes of paperwork per office, then \( \mu = 10 \).

- **Outlet.** The exist from the system. Generally this factor can be ignored.

- **System.** The time in the system is generally taken to be the queuing time plus the service time.

Typically questions involve the cost of improving a service facility compared with the benefits to be gained from the improvement. The cost factors generally involved include:

**Service Costs**

- **a.** The people required to provide or to improve a service, eg packers are often provided by the side of supermarket cash desks to reduce service time.

- **b.** The cost of better equipment or facilities, eg. the provision of calculation display scales in some departmental stores or the provision of computer terminals in some travel agencies.

- **c.** The provision of more service points.

**Queuing Costs**

- **a.** Lost costs of idle time due to waiting. Particularly important where the queue is formed by the firm’s own employees.

- **b.** Lost sales due to customers going elsewhere upon seeing large queues.

- **c.** Lost earning power when equipment has to wait some time to be repaired.

**Cost balance.** It must not be assumed that the best situation is to plan no queues at all. The cost of providing and maintaining the service facilities must be compared with the cost of some queuing. The more service facilities that are provided inevitably means that they will be idle for some of the time. This may not seem too significant if a single clerk at an enquiry desk is considered but it would be an entirely different matter if the service facility was a large dry dock or an airport runway. The balance between service and queuing costs is often a matter of judgement. Queuing theory helps to provide some of the data which to base that judgement.

2. **SIMPLE CHANNEL SYSTEMS**

The term “simple queue” is a technical expression which should strictly be only applied to queuing problems with the following characteristics.

- **a.** Single queue and a single service point.

- **b.** The queue discipline is First come First served.

- **c.** The queue has infinite capacity.
d. Arrivals are random and follow a Poisson distribution.

e. No simultaneous arrivals.

f. Service times are random and follow a negative exponential distribution.

g. Discrete customers from an infinite population of potential customers.

h. Single, follow-on service discipline.

The main characteristics of simple channel systems are given below.

Traffic intensity for a simple channel system is

\[ \rho = \frac{\lambda}{\mu} \]

The probability of there being no units in system is

\[ P_0 = 1 - \rho \]

Average time a customer is in the system (i.e. queuing and service) is

\[ \bar{T} = \frac{1}{(1 - \rho)\mu} \]

Average time a customer is in the queue is

\[ \bar{T}_q = \frac{\rho}{(1 - \rho)\mu} \]

Average number of customers in the system is

\[ \bar{k} = \frac{\rho}{1 - \rho} \]

Average number of customers in the queue

\[ \bar{k}_q = \frac{\rho^2}{1 - \rho} \]

**Model problem 1.** In a cafeteria 9 tables on average are taken per hour. The service is carried out by a waiter serving a table (making and execution of the order) on average 5 minutes. The customers have expressed their dissatisfaction to the manager, they have to wait too long until their requests fulfilled. Provided that the appointment of every new waiter service time of a table decreased on average by 1 minute, how many waiters should be appointed so that customers at a table to wait no more than 5 minutes for the fulfillment of their order?

**FORMULATION.** It is obviously that there is a simple channel system. In the first case when a waiter is appointed, the main characteristics are

\[ \lambda = 9, \mu = 12, \rho = 0.75, P_o = 0.25, \bar{T} = 20\text{ min}, \bar{T}_q = 15\text{ min}, \bar{k} = 3, \bar{k}_q = 2.25 \]
In this case average time a customer (a table) in the system (i.e. queuing and service) is $\bar{T} = 20 \text{ min}$. So, it is true that 20 min is too long for the order is fulfilled.

In the second case when two waiters are appointed the main characteristics are

\[ 2^0 \) $\lambda = 9, \mu = 15, \rho = 0.6, P_o = 0.4, \bar{T} = 10 \text{ min}, \bar{T}_q = 6 \text{ min}, \bar{k} = 1.5, \bar{k}_q = 0.9 \]

Next, for three waiters we obtain

\[ 3^0 \) $\lambda = 9, \mu = 20, \rho = 0.45, P_o = 0.55, \bar{T} = 5.45 \text{ min}, \bar{T}_q = 2.45 \text{ min}, \bar{k} = 0.818, \bar{k}_q = 0.368 \]

Finally for four waiters we have

\[ 4^0 \) $\lambda = 9, \mu = 30, \rho = 0.3, P_o = 0.7, \bar{T} = 2.86 \text{ min}, \bar{T}_q = 0.857 \text{ min}, \bar{k} = 0.429, \bar{k}_q = 0.129 \]

So, from mathematical point of view it is necessary to be appoint four waiters (then $\bar{T} = 2.86 \text{ min} < 5 \text{ min}$). But from practical point of view is recommended to be appoint three waiters (then $\bar{T} = 5.45 \text{ min}$).

3. PARALLEL MULTI CHANNEL SYSTEMS

A multi channel system is one where there is more than one service point. Many possible combinations exist: channels in series, channels in parallel or combinations of series and parallel. Here we consider Parallel multi channel system. This is a system with parallel service points of equal capacity served by a single queue with all of the other simple queue requirements fulfilled. The formulae involved are lengthy and if they are require in an examination it would be reasonable to expect them to be provided. The main characteristics of these systems are given bellow.

Traffic intensity for a parallel multi-channel system is

$$ \rho = \frac{\lambda}{s \mu}, $$

where $s$ is the number of service channels.

The probability of there being no units in system is

$$ P_0 = \frac{s!(1-\rho)}{(\rho s)^s + s!(1-\rho) \left[ \sum_{n=0}^{\infty} \frac{1}{n!} (\rho s)^n \right]} $$

Average time a customer is in the system (i.e. queuing and service) is

$$ \bar{T} = \frac{(\rho s)^s}{s!(1-\rho)^2 s \mu} P_0 + \frac{1}{\mu} $$
Average time a customer is in the queue is

\[ T_q = \frac{(\rho s)^s}{s!(1-\rho)^2 s \mu} P_0 \]

Average number of customers in the system is

\[ k = \frac{\rho (\rho s)^s}{s!(1-\rho)^2} P_0 + ps \]

Average number of customers in the queue

\[ k_q = \frac{\rho (\rho s)^s}{s!(1-\rho)^2} P_0 \]

Model problem 2. The management of a supermarket has the following information: the average rate of arrivals per hour is \( \lambda = 20 \) and the average rate of service per hour is \( \mu = 7 \). In this situation it is necessary to determine the number of cash desks so that the average time a customer in the system (queuing and service) will not be greater than nine minutes.

**FORMULATION.** It is obviously that there is a parallel multi channel system and the minimum of cash desks is three. Then we have

1\(^{st}\) \( s = 3, \rho = 0.95, P_o = 0.01, T \approx 63 \text{ min} \)

If the cash desks are four we obtain

2\(^{nd}\) \( s = 4, \rho = 0.71, P_o = 0.04, T \approx 12 \text{ min} \)

Next, when the number of cash desks is five the average time a customer in the system would be little more than nine minutes

3\(^{rd}\) \( s = 5, \rho = 0.57, P_o = 0.05, T \approx 9.38 \text{ min} \)

And finally, if the number of cash desks is six the average time a customer in the system would be less than nine minutes

4\(^{th}\) \( s = 6, \rho = 0.47, P_o = 0.06, T \approx 8.79 \text{ min} \)

So, from mathematical point 6 cash desks are needed (then \( T = 8.79 \text{ min} < 9 \text{ min} \)). But from practical point of view is recommended to investment in 5 cash desks (then \( T = 9.38 \text{ min} \)).

Now we give a computer code in MATLAB for calculation of all the main features of simple channel systems and parallel multichannel systems.
function Queuing systems
s=input('Input number of channels s = ');
la=input('Input average rate of arrivals per unit of time \( \lambda = \) ');
mu=input('Input average rate of service per unit of time \( \mu = \) ');
if s==1
    ro=la/mu;
kq=ro^2/(1-ro);
k=ro/(1-ro);
Tq=ro/((1-ro)*mu);
T=1/((1-ro)*mu);
P0=1-ro;
    disp(['Traffic intensity: ',num2str(ro)])
    disp(['Average number of customers in the queue: ',num2str(kq)])
    disp(['Average number of customers in the system: ',num2str(k)])
    disp(['Average time a customer is in the queue: ',num2str(Tq)])
    disp(['Average time a customer is in the system: ',num2str(T)])
else
    zp=0;
    ro=la/(mu*s);
    for z=0:s-1
        zp=zp+(ro*s)^z/factorial(z);
    end
    P0=factorial(s)*(1-ro)/((ro*s)^s+factorial(s)*(1-ro)*zp);
    pi_=P0*(ro*s)^s/((1-ro)*factorial(s));
    Pk=1-pi_;
    zp=0;
    for z=0:s-1
        zp=zp+(s-z)*ro^z/factorial(z);
    end
    kq=P0*ro*(ro*s)^s/(factorial(s)*(1-ro)^2);
k=kq+ro*s;
Tq=kq/(s*mu*ro);
T=Tq+1/mu;
    disp(['Traffic intensity: ',num2str(ro)])
    disp(['The probability of there being no units in system: ',num2str(P0)])
    disp(['Average number of customers in the queue: ',num2str(kq)])
    disp(['Average number of customers in the system: ',num2str(k)])
    disp(['Average time a customer is in the queue: ',num2str(Tq)])
    disp(['Average time a customer is in the system: ',num2str(T)])
end
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IDENTIFY AND PRIORITIZE THE FACTORS AFFECTING CUSTOMERS SATISFACTION OF NATURAL GAS USING A HYBRID ALGORITHM, KANO AND FAHP (THE CASE OF A PROVINCE IN IRAN)

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Abstract
The aim of the article is to determine the extent to which customer satisfactions in the Gas Company had organizational and customer readiness for developing their services. One of the most important sectors that plays key role for grasping developed condition is energy sector. Gas Company like other industries also looks for augmenting their profits and increasing their strength by expansion. The designing of this section must involve selection of those that have sufficient success potential. Hence, from several factors of success, the following three criteria factors have been: Basic requirements, performance and excitement were classified. A total of 20 key factors which influence customers' satisfaction based on these steps Kano model, the three groups. Basic requirements, performance and excitement were classified. Then prioritize those factors, techniques of fuzzy analytic hierarchy process were used. The results of the analysis indicated the strengthening of the gas pressure in cold seasons as the main operating system of the Internet service The least important factor among the factors that cause gas company customers satisfaction in Semnan province were identified.

Key words: Customer Satisfaction, Kano, AHP Fuzzy, Gas Company.

INTRODUCTION
One of the most important evaluation in relation to performance optimization of last decade of 20th century is indemnification of costumer satisfaction measurement as one of the basic elements and requirements of management system in business institutes and agencies (Winnie, kanji 2001) customer satisfaction is defined as individual view point that is originated from continuous comparison between organization real performance and expected costumer performance (Malaki, Darabi, 2008, P 27). Kotler defined costumer satisfaction as fulfillment of costumer requirements based on real performance of organization. By this, if costumer requirements are fulfilled, costumer satisfaction would be achieved, if not, the costumer would be unsatisfied (Kotler, Armestrang, 2004)

Today, in the world of business, management recognizes the principle that customers are the main axis of business and company’s success depends on improvement of managerial relationships (Neuyen et al, 2007). Therefore, importance of customer’s satisfaction and customer retention in strategy formulation for customer-oriented and market-oriented enterprises cannot be underestimated. Hence, energy industry like other industries, is faced with new technologies market rapid change, economic indefiniteness, intense competition, customers’ diverse needs and changing atmosphere which give rise
to a series of unprecedented challenges (Kumar, 2008). The enterprises which compete for the market hegemony, constantly seek ways for surpassing their competitors. Successful management of relationship with customer is one of the major competitive advantages which can help companies prevent switching of customers to other companies (Kimlioglu, 2009).

In competitive would, the organization and companies can compete and achieve profit just through special attention to costumer requirements and costumer satisfaction fulfillment (Abassinejad, Mehrnoosh 2006). Organization paid attention to costumer satisfaction due to increase of number of costumers, loyalty, revenue, profit, market share and survival. They attempts to achieve costumer satisfaction because it is basic factors to organization, profitability and survival (CSSP, 2006, P6).

Undoubtedly, without costumer, business would not be achieved through high quality product or services. The companies who obtained costumer satisfaction are more powerful and successful during long term. Therefore, evaluation of service and product quality, costumer identification, costumer satisfaction measurement are very important. (Seyed javadi, 2005 and Vakilalroaia and Ardekani, 2012). Energy Industry, Such as other industries with financial services, will face with fast changes in new technologies in market, unstable economical part, high competition, different needs of customers and variable position that making complexes of very important challenges (kumar , 2008). Here, knowing the affected factors and agents on customer's satisfaction, especially in developing countries, have special importance. Kening ham et.al (2006) studied a long lasting test and analyzed un-symmetrical contact between employee and customers’ satisfaction in retreat. Zao & dolakia (2009), by using Kano Model and the models of multi-indicator decision-making, were determined the effects of Hi-web and Right network among chants. Baki et.al (2009) by using of a complex model of SERVQUAL an Kano that is named Quality Function Development (QFD), were studying about logistical services in Turkish. Shen , et al. (2000), combined the Kano model and GFD and expanded innovation in product. Wittle & Fandin (2005) Studied then progresses in quality indicators with Kano model. Kiey et.al (2001) by using a composed model of Kano and SERVQUAL in QFD surveyed the best services. Gole and Auzgen (2008) with a composed model of Kano, AHP and planning matrices and GFD use, analyzed the library services. Shahin (2004), with exploratory survey, had composed the Kano model and FMEA. Wang & jay (2010), in an assay which has titled "understanding the clients, needs", by quality analyze and Kano model, surveyed the clients, satisfactory. As we have seen in the past researches, compose and use of Kano model to find clients, satisfactory is important, but something that don’t regard to it, are effective factors on customers' satisfaction, on a financial institute. In this study, it tries to regard to this important point and makes priority on them by using of Analytical Hierarchy Process (AHP).

Gas Company is distributor of natural gas in Semnan among industrial, trade and domestic costumers. Therefore, identification of natural gas costumer requirements is necessity to provide services. This research is performed to identify effective factors on natural gas costumer satisfaction about gas service to perform prioritization. As organizations and governmental and private agencies paid attention to customer nonoration, Gas Company wanted to perform this plan to measure costumer satisfaction, therefore, basic requirement, performance, costumer motivation and requirement identification should be determined to provide better services to costumers.

2) LITERATURE OF REVIEW

At end of 1960, 4 levitt announced the goal of business is costumer creation and sustain (fax 2000) during next decades and in response to competitive pressures of globalization and competition among industries and geographical regions, costumer relation management have been formed (CRM)
With change of transaction oriented economy to relation oriented economy, business plan is changed from product centered to costumer centered. Therefore, we can see importance of CRM concept and costumer long term relation sustain. The basic reason to paying attention to costumer is change of business performance methods (Goldenberg, 2000). Generally CRM creation and revolution may be divided to three time periods: First periods from manual production to mass production: industrial revolution. Second periods from mass production to continual optimization: quality revolution. Third periods from continual optimization to ordered mass production: costumer revolution.

The basic of CRM systems include of understanding, controlling and optimizing management and commercial data. System effectiveness is relied on information quality. If data quality is not guaranteed, the process would not be efficient. Industrial analysists predicted CRM strategy would not be executed if business foundation and information technology are not created efficiently (Goldenberg, 2000).

2-2. Costume satisfaction index

Costumer satisfaction indies is number to determine costumer satisfaction during the time. This index is calculated during the time to compare among various durations. To calculated costumer satisfaction index, expectations should be analyzed based on relation to market or company performance. The next step is determining quality degree in various parts of company. Multiplying costumer importance ration to product quality, satisfaction degree would be defined as percentage. This method is based on costumer demand (Safavinejad, Rahimi, 2008)

2-3. Costumer satisfaction forming modes

During recent decade, various models have been provided to costumer satisfaction. Satisfaction forming processes would be categorized in various models. These models show the relation between costumer satisfaction and motives. The most valid costumer satisfaction model is based on famous costumer satisfaction theory as expectancy disconfirmation model expectancy, costumer would be non-satisfied as figure 1 (Hayes, Jenny, Dredge 1998)

2-4. Kano’s model

One of the economic methods to achieve customers’ satisfaction in competitive analyses in order to help correct and profound understanding the nature of Voice of Customer is Kano’s model which has been registered (Yanlai et al., 2009). Kano’s model for the first time in 1979 was presented by professor Nurbaki, lecturer at Rika University in Japan and later on he succeeded in receiving Deming Award. Kano’s model is used for classification of product based on understanding customer’s wishes and the way it affects customer’s satisfaction. In fact, Kano’s diagram shows customers’ satisfaction in relation
to production level and qualitatively evaluates products (Wassenaar et al., 2005; Riviéral, 2006). Kano believes for customer’s satisfaction, organizations should make sure that the way of securing customers’ requirements affects their satisfaction and products and services should meet all of the three customers’ requirements and not only what the customer states. Kano divided these requirements in to three groups (Chun and Mingch, 2008) and Figure 2 for better conception of these requirements is provided.

![Figure 2. Kano model (Chun and Mingch, 2008).](image)

**Expected (essential) requirements**: The first group of the characteristics, are essential needs which in Kano’s view, the inclusion of which in the product, only prevents the customer’s dissatisfaction and does not result in a particular satisfaction and content in customer. In other words, full gratification of product’s essential requirements, only prepare the ground for presence of product in the market and for triumph over competitors and taking control of the product’s market does not offer us any help. The customer supposes that these characteristics in product have been included in the product and in other words, these needs are unspoken and implicit.

**Performance requirements**: The second group of qualitative characteristics is product’s performance requirements the non-gratification of which causes customers’ dissatisfaction and in contrast, full and proper gratification of them, will result in the customer’s satisfaction. Importance of product’s performance requirements is in that that their identification and inclusion in product at least is an effort which protects organization’s commercial position in the competitive market.

**Attractive requirements**: Detection and specification of these requirements is difficult because they are beyond customers’ expectations and hence, their absence will not cause dissatisfaction, but their presence excites the customer.

**2-5. Kano’s model examination**

By taking customers’ condition into consideration in Kano’s model, there is a series of questionnaires which assess customers’ condition. Next, the responses given by customers are analyzed by Table 1.
### Table 1. Evaluation table of undesirable customers’ requirements results

<table>
<thead>
<tr>
<th>Customers needs</th>
<th>Have a lot of positive effect</th>
<th>Have positive effect</th>
<th>without effect</th>
<th>Have negative effect</th>
<th>Have a lot of negative effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have a lot of positive effect</td>
<td>Q</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>Q</td>
</tr>
<tr>
<td>positive effect</td>
<td>R</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>M</td>
</tr>
<tr>
<td>without effect</td>
<td>R</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>M</td>
</tr>
<tr>
<td>negative effect</td>
<td>R</td>
<td>I</td>
<td>I</td>
<td>I</td>
<td>M</td>
</tr>
<tr>
<td>a lot of negative effect</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>Q</td>
</tr>
</tbody>
</table>

(Qianli Xu et al., 2009)

### 2.5. Fuzzy hierarchical analysis

Decision making process in AHP inside a modified hierarchical structure is like Figure 3. As a result, each line of hierarchical levels in AHP uses paired comparative judgments and algebraic matrix for identification and estimation of relative priorities from the criteria and options (Saaty, 1992).

![Hierarchical representation of decision issue](image)

Figure 3. Hierarchical representation of decision issue

But AHP is not able to calculate uncertainty in the time of problem evaluation and solution. To solve these problems, the extended model of AHP that is fuzzy analysis of hierarchical process (FAHP) has been suggested. This method first, transforms inaccurate and vague concepts and variable in to mathematical form and then it prepares grounds for reasoning and decision making in uncertainty.
condition. FAHP using fuzzy scales with high, medium and low values resolves more efficiently the problem of ambiguous and unclear decisions (Seongkon et al., 2010). Fuzzy numbers are made of membership and sets functions of the used fuzzys in FAHP weights using AHP nine-point scale. Although, FAHP needs heavy computational process, it is more systematic than other MCDM methods. FAHP takes possession of paired comparisons of options, criteria, ambiguity and unclearness of human assessments. For paired comparison of fuzzy scales, table 2 has been used.

<table>
<thead>
<tr>
<th>Table 2. Trilateral fuzzy numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Linguistic variables</strong></td>
</tr>
<tr>
<td>Identical / similar</td>
</tr>
<tr>
<td>Few / little</td>
</tr>
<tr>
<td>Much</td>
</tr>
<tr>
<td>Very much</td>
</tr>
<tr>
<td>Completely</td>
</tr>
</tbody>
</table>

Seongkon et al., 2010

Membership degree \[ \mu(x) \]

![Transformation of lingual words into fuzzy numbers](Image)

**Figure 4.** Transformation of lingual words into fuzzy numbers

The used phases for FAHP are as follows:

**First step:** Formation of paired comparisons combinatory matrix

(1)

\[ E_{ij} = \frac{1}{m} \times (E_1^{ij} + E_2^{ij} + \cdots + E_{ij}) \]

\( E_{ij} \) is general assessment of individual I in terms of j-index and \( m \) is number of evaluators.

**Second step:** For each line of paired comparisons matrix, value of \( S_k \) which itself is a triangular number is calculated as follows:
In which, k indicates the line’s number and I and j, respectively, represent options and indices.

**Third step:** Calculation of $S_{k}$ magnitude degree relative to each other.

\[
\nu(M_1 \geq M_2) = \begin{cases} 
1 & \text{if } M_1 \geq M_2 \\
hgt(M_1 \cap M_2) & \text{otherwise}
\end{cases}
\]

Also, we have:

\[
hgt(M_1 \cap M_2) = \frac{u_1 - l_2}{(u_1 - l_2) + (m_2 - m_1)}
\]

from k other triangular fuzzy numbers is obtained from the below relation:

\[
\nu(M_1 \geq M_2 \ldots M_k) = \min \{\nu(M_1 \geq M_2), \ldots, \nu(M_1 \geq M_k)\}
\]

**Fourth step:** Calculation of indices’ weight in paired comparison matrix

**Fifth step:** Obtaining abnormal weights

\[
W^*(x_i) = \text{Min} \left\{ v(s_i \geq s_k) \right\}, \quad k = 1, 2, \ldots, n, \quad k \neq i
\]

Normalization of abnormal coefficients vector ($W'$) in order to obtain weights’ normal vector (Lee et al., 2007; Lee et al, 2009).

\[
W^* = \left[ W^* (c_1), W^* (c_2) \ldots W^* (c_n) \right]^T
\]

**Sixth step:** calculation of incompatibility degree

A. First, we de-fuzzy the paired comparisons table through method of area center.

\[
CA = \frac{(c - a) + (b - a)}{3} + a
\]

B. Multiplication of de-fuzzy matrix by vector of relative weights

\[
WSV = D \times W
\]
C. Calculation of compatibility vector (CV): Quotient of WSV on vector of indices’ relative weights

D. Calculation of $\lambda_{max}$: Arithmetic mean of compatible vector’s elements

E. Calculation of incompatibility index (II): $II = \frac{\lambda_{max}}{n-1}$

F. Calculation of compatibility rate: $IR = \frac{II}{IRI}$

As shown Table 3 if incompatibility rate is less than or equal to 0.10 ($IR \leq 0.10$), there is compatibility in paired comparisons and we can continue the work. Otherwise, decision maker should reconsider the pared comparisons.

<table>
<thead>
<tr>
<th>n</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRI</td>
<td>0</td>
<td>0</td>
<td>0.58</td>
<td>0.9</td>
<td>1.12</td>
<td>1.24</td>
<td>1.32</td>
<td>1.41</td>
<td>1.45</td>
<td>1.51</td>
</tr>
</tbody>
</table>

In incompatibility rate is less than or equal to 0.10 ($IR \leq 0.10$), there is compatibility in paired comparisons and we can continue the work. Otherwise, decision maker should reconsider the pared comparisons.

3- Methodology

This research is descriptive generally and is applicable due to goals. Also data gathering is performed using field method and to perform data analysis, hierarchical method is applied. This research is implemented during two stages. Firstly effective factors on customer satisfaction about gas company services have been evaluated, then using Kano questionnaires; categorization would be performed in three categories. Secondly, using fuzzy hierarchical analysis process method, and comparative questionnaires, the factor would be prioritized. Research statistical population include of all Semnan province gas company customers. Sampling method is simple random. The statistical samples have been selected from refereed customers to agency and service offices. The questionnaires have been provided to them. To assure questionnaire have been provided to them. To assure questionnaire understanding by customers and to eliminate any ambiguity, interviews have been performed and necessary explanations have been provided to complete. Therefore, 385 questionnaires have been gathered to analysis.

To evaluate questionnaire validity, the samples have been provided to 10 skillful experts to confirm questions and analysis. The questionnaire narrative is contextual narrative.

To evaluate research reliability, a Cronbach method had been applied that is trust full. Reliability coefficient of this research is 87% that is very good.

4. EMPIRICAL RESULTS

To gather data, two questionnaires have been used firstly to categorize effective factors on customer satisfaction, Kano questionnaire had been used. Searching valid scientific resources and using expert opinions in field of gas company exploitation, Semnan regional gas company and university masters, 20
questions have been defined as effective factors on gas company costumer satisfaction that have been applied in questionnaire No.1 According to results and data analysis method in Kano model, 20 effective factors on gas company costumer satisfaction have been categorized in Figure5.

**Figure 5. Hierarchical structure of the criteria concerning customers’ needs**

<table>
<thead>
<tr>
<th>Basic Needs</th>
<th>Motivation Needs</th>
<th>Performance Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using skillful staff to study counters</td>
<td>Providing service with internet media</td>
<td>Increase of payment duration</td>
</tr>
<tr>
<td>Increasing gas reassure is cold seasons</td>
<td>Low consumption costumer encourage</td>
<td>Study counters during non official times</td>
</tr>
<tr>
<td>Providing security brochure with invoices</td>
<td>Remote counter study</td>
<td>Invoice payment installments</td>
</tr>
<tr>
<td>Proper behavior with costumers</td>
<td>Installation of intelligent counters</td>
<td>Providing cost effective approaches</td>
</tr>
<tr>
<td>Costumer insurance against damages</td>
<td></td>
<td>Gas counter periodical test</td>
</tr>
<tr>
<td>Using skill full staffs in services offices</td>
<td></td>
<td>Non – receiving money to provide services</td>
</tr>
<tr>
<td>Stopping supply with prior notification</td>
<td></td>
<td>Intelligent phone service</td>
</tr>
<tr>
<td>Reaction to contact to 194</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Message services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In next part, to prioritize effective factors on costumer satisfaction, fuzzy hierarchical analysis process has been applied.

Firstly the model had been provided, then the importance and variable weights coefficients have been determined. After identification and categorization of effective variables on costumer satisfaction based on Kano model, the importance and basic and sub indices, the costumers were requested to select numbers 1 , 3, 5, 7, 9 as equal, few important, important, very important and completely important to determine importance of two indices. Then based on triangle fuzzy table, the equal answer would be determined in fuzzy method.

A) Basic scales prioritization:

Creating combinational comparative matrix, normal and abnormal weights have been determined beside to ranking basic and sub scales of natural gas costumer satisfaction. The results have been provided in table 4.
### Table 4: Ranking basic scales of natural gas customer satisfaction in fuzzy field

<table>
<thead>
<tr>
<th>Rank</th>
<th>Basic scales</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Basic</td>
<td>0.5698</td>
</tr>
<tr>
<td>2</td>
<td>Performance</td>
<td>0.2513</td>
</tr>
<tr>
<td>3</td>
<td>Motivational</td>
<td>0.1789</td>
</tr>
<tr>
<td></td>
<td>Sum</td>
<td>1</td>
</tr>
</tbody>
</table>

Results show that basic requirements have highest score and performance and motivational items have next priorities.

A) Basic requirement prioritization:

Forming comparative matrix, normal and abnormal weights have been determined based on natural gas customer satisfaction ranking, with attention to questionnaire information. Calculation results have been provided in table 6.

### Table 5: Ranking basic requirement scales of natural gas customer satisfaction in fuzzy environment

<table>
<thead>
<tr>
<th>Rank</th>
<th>Basic scales</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Costumer insurance against damages</td>
<td>0.119</td>
</tr>
<tr>
<td>2</td>
<td>Using skillful personnel</td>
<td>0.096</td>
</tr>
<tr>
<td>3</td>
<td>Stopping gas with notification</td>
<td>0.81</td>
</tr>
<tr>
<td>4</td>
<td>Message services</td>
<td>0.067</td>
</tr>
<tr>
<td>5</td>
<td>Proper behavior with costumer</td>
<td>0.143</td>
</tr>
<tr>
<td>6</td>
<td>Reaction to contact to 194</td>
<td>0.118</td>
</tr>
<tr>
<td>7</td>
<td>Providing security brochure</td>
<td>0.140</td>
</tr>
<tr>
<td>8</td>
<td>Increase gas pressure in cold seasons</td>
<td>0.146</td>
</tr>
<tr>
<td>9</td>
<td>Using skillful staffs to read counters</td>
<td>0.089</td>
</tr>
<tr>
<td></td>
<td>Sum</td>
<td>1</td>
</tr>
</tbody>
</table>

Results show increase of gas pressure in cold seasons has highest priority and message services have lowest priority.

B) Performance requirement prioritization:

After forming comparative matrix, normal and abnormal weights and sub – scale ranking have been calculated to natural gas customers based on questionnaire information that are provided in table 6.
Table 6. Ranking performance requirement scales of natural gas costumer satisfaction in Fuzzy conditions.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Basic scales</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cost effective approaches</td>
<td>0.1683</td>
</tr>
<tr>
<td>2</td>
<td>Message services</td>
<td>0.995</td>
</tr>
<tr>
<td>3</td>
<td>Gas counters periodical test</td>
<td>0.1636</td>
</tr>
<tr>
<td>4</td>
<td>Non – receiving insignificant costs</td>
<td>0.782</td>
</tr>
<tr>
<td>5</td>
<td>Payment installment</td>
<td>0.1738</td>
</tr>
<tr>
<td>6</td>
<td>Payment duration increase</td>
<td>0.1722</td>
</tr>
<tr>
<td>7</td>
<td>Counter study in proper time</td>
<td>0.1443</td>
</tr>
</tbody>
</table>

Sum 1

Results show payment installment has highest priority and non – receiving insignificant costs has lowest priority.

C) Motivational requirement prioritization

Forming combinational comparative matrix, normal and abnormal weights and motivational sub-scales ranking have been determined based in natural gas costumer motivations in questionnaire information as table 7.

Table 7. Ranking motivational requirement scales of natural gas costumer satisfaction in fuzzy condition:

<table>
<thead>
<tr>
<th>Rank</th>
<th>Basic scales</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intelligent counter installation</td>
<td>0.1222</td>
</tr>
<tr>
<td>2</td>
<td>Low consumption costumer encourage</td>
<td>0.3195</td>
</tr>
<tr>
<td>3</td>
<td>Remote counter study</td>
<td>0.4238</td>
</tr>
<tr>
<td>4</td>
<td>Internet service</td>
<td>0.1346</td>
</tr>
</tbody>
</table>

Sum 1

Results show remote study has highest priority and intelligent counter installation has lowest priority.

5. CONCLUSION

Generally 20 effective factors have been achieved through resource. According to answers, 4 factors are related to motivational requirements, 7 factors are related to performance requirements and 9 factors are related to basic requirements. Effective scales on consumer satisfaction are provided in table 8 from 1 to 20.
Table 8: Indices final ranking based on Kano model and FAHP:

<table>
<thead>
<tr>
<th>Basic scales prioritization</th>
<th>Weight</th>
<th>Subscales priority</th>
<th>Weight</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>First priority: basic requirement</td>
<td>0.5698</td>
<td>Costumer insurance against damage</td>
<td>0.0680</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Using skill full staffs</td>
<td>0.546</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gas stopping with notification</td>
<td>0.461</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Message service</td>
<td>0.381</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Proper behavior to costumer</td>
<td>0.812</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reaction to 194</td>
<td>0.675</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Security brochure with invoices</td>
<td>0.800</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gas pressure in cold season</td>
<td>0.0834</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skill full staff tiered counter</td>
<td>0.509</td>
<td>9</td>
</tr>
<tr>
<td>Second priority: Performance requirement</td>
<td>0.2513</td>
<td>Cost effective approaches</td>
<td>0.423</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Message service</td>
<td>0.0250</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gas counter periodical test</td>
<td>0.0411</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non – receiving cost of some services</td>
<td>0.0197</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Invoice payment installment</td>
<td>0.0437</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Payment duration increase</td>
<td>0.0433</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Counter reading with prior notification</td>
<td>0.0363</td>
<td>16</td>
</tr>
<tr>
<td>Third priority: motivational requirement</td>
<td>0.1789</td>
<td>Intelligent counter installation</td>
<td>0.0219</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td>low consumption costumer encourage</td>
<td>0.0572</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>remote counter study</td>
<td>0.0758</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>service providing through internet</td>
<td>0.0241</td>
<td>18</td>
</tr>
</tbody>
</table>

First and most important factor to customer satisfaction is increase of gas pressure during cold seasons that is basic requirement. There fore, Semnan province gas customers identified it as basic goal. This ranking is in conformity to gas company goal as proper gas supply. This factor has first score among others. Other factors and 20th factors as non-receiving cost to some services are performance requirement. Fulfilling them leads to satisfaction and if not, unsatisfaction would be achieved. This factor is performance requirement with score of 7 and prioritized as 20th factor among other factors.

Prioritizing factors from 1 to 20, Gas Company should fulfill customer requirement. Also customers paid attention to safety, performance accuracy and gas counter study as important factors and Gas Company should provide plan to test current counter performance and apply remote systems to study counter.
It is recommended to perform this research among other cities of Semnan province during one year interval because customer requirements would be changed gradually and motivational requirements would be changed to performance requirements and performance requirements would became basic requirement.

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INVESTIGATION OF THE ROLE OF MANAGEMENT INFORMATION SYSTEM AND RADIO FREQUENTLY IDENTIFICATION (RIFD) TECHNOLOGY IN SUPPLY CHAIN MANAGEMENT (SCM)
((THE CASE IRANIAN AUTOMOTIVE INDUSTRY))
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Abstract
The purpose of this study is to Investigation of the role of management information system, in particular which is the means to detected radio waver (radio frequently identification (RIFD) technology) in Supply Chain Management (SCM). The Supply Chain Management (SCM) has tree principle dimension Processes: 1-information management, 2-logistics management, 3-and relation management, among which the information management play a significant role in the whole Supply Chain Management (SCM) and in its better functioning. This technology known as “the greatest revolution in logistics and the supply chain after the 1990s internet revolution” is investigation in the information management system in all subcategories of the Supply Chain (SC) the automotive industry dealing with the concepts to analysis the relationships among of partners (customer and suppliers). We selected the supply chain Iranian Automotive Industry as population of this study. Also, we selected a description-survey methodology. The sample is derived from a limited population, based on expert opinion. After determining the system indices and specifying the dimensions of stealing, boosting (increasing) efficiency in the inventory control and decreasing costs of Investigation and transfer, we employed multi criteria decision making model (MCDM) and radio frequently identification (RIFD) technology to detect and rank the factors and dimensions. The results indicate that the indicators related to technology radio frequently identification (RIFD), The Experts Respectively, the following indicators are Importance and high priority requirements in supply chain management, that are included: efficiency in inventory control, inspection costs, transportation costs, reduce stealing. That this results can be help in the Supply chain management decisions to improve and efficiency of Supply Chain Management Based on a specific database management systems in organizations.

Key word: Supply Chain (SC), management information system, the information technology of radio frequently identification (RIFD), multi criteria decision making model (MCDM), Supply Chain Management (SCM).
1. INTRODUCTION

Socio- Economic systems often face decision making with qualitative and intangible factors. Values, beliefs and perceptions are the force behind many of these decision-making activities. Decision making processes relies on the information of alternatives. Information may vary from scientifically derived hard data to subjective interpretations with certainty about decision outcomes to uncertain outcomes. More over the decision depends on multiple criteria and might not be a straightforward one. The key problem in this situation is to elicit systematic judgments from unstructured information. Analytic Hierarchy Process (AHP) is a powerful tool for this purpose (B Liu & S Xu, 1987). Complex problems or issues involving value or subjective judgments are suitable applications of the AHP approach.

Although, Improved supply chain management (SCM) capability is critical to many the supply chain Iranian Automotive Industry, which are often distant from their suppliers and markets, in their efforts to compete in ever more demanding business environments. This is because Iranian Automotive Industry of supply chain managers along with their international counterparts are being confronted with: growing competition, pervasive change, relentless advances in technology, ever-shorter life cycles, and alterations to the openness of markets. Better communications and logistical innovations have increased global accessibility.

Technological advances and economic development have increased market opportunities but also created more national and international competitors and, increasingly, greater expectations from customers. Many supply chain managers are realizing that traditional approaches are inadequate for keeping up with these changes. These approaches do not provide the means or the incentives to make the necessary continuous changes to remain competitive. To stay in business, supply chain managers need to think and act differently, and the changes required of them are profound.

2. REVIEW OF LITERATURE

Literature portrays logistics and SCM practices from a variety of different perspectives with a common goal of ultimately improving performance and competitiveness. Based on literature, we find that the important supply chain practices concerns are mainly related to:

a). Supply Chain Collaboration and Partnership with various stakeholders such as the product developers, suppliers, channel partners and end-users.

b). Supply Chain Structure including facilities network design taking into account related transportation and logistics.

c). Forecasting and Demand Management to cope with supply chain complexity in a cost-effective and delivery-efficient way.

d). Use of Information and Communication Technologies (ICT) to facilitate the above (Samir K. Srivastava, 2006. pp:15-17)

2.1. Radio-Frequency Identification

Radio-frequency identification (RFID) is the use of a wireless non-contact system that uses radio-frequency electromagnetic fields to transfer data from a tag attached to an object, for the purposes of automatic identification and tracking. Some tags require no battery and are powered and read at short ranges via magnetic fields (electromagnetic induction). Others use a local power source and emit radio waves (electromagnetic radiation at radio frequencies). The tag contains electronically stored
information which may be read from up to several meters away. Unlike a bar code, the tag does not need to be within line of sight of the reader and may be embedded in the tracked object.

RFID tags are used in many industries. An RFID tag attached to an automobile during production can be used to track its progress through the assembly line. Pharmaceuticals can be tracked through warehouses. Livestock and pets may have tags injected, allowing positive identification of the animal. Since RFID tags can be attached to clothing, possessions, or even implanted within people, the possibility of reading personally-linked information without consent has raised privacy concerns.  

2.2. Supply Chain Management (SCM)

Supply chain management has been defined by members of ‘The International Centre for Competitive Excellence’ in 1994 as: “Supply chain management is the integration of business processes from end-user through original suppliers that provide products, services and information and add value for customers”.

Hutt and Speh (1998) offer the following definition of supply chain management. “SCM is a technique for linking a manufacturer’s operations with those of its strategic suppliers and its key intermediaries and customers. It seeks to integrate the relationships and operations of both immediate, first-tier suppliers and those several tiers back in the supply chain...The goal of SCM is to improve timing and costs in manufacturing through strong vendor relationships”.

Fuller, O’Connor and Rawlinson (1993) argue that supply chain management is based on relationships. This viewpoint is reinforced by Hutt et al (1998).

Cooper et al cited in Walters (2002) suggests the scope of the supply chain can be defined in terms of the number involved within the supply chain and the activities and functions involved. Initially the scope of the supply chain was across firms but now includes internal integration within organisations before expansion to other firms.

The direction in which supply chain planning and control ‘travels’ has been modified since earlier views. Keith and Webber (1982) cited in Walters (2002) offer the view that supply chain management covered the flow of goods from supplier through manufacturing and distribution to the end user. Stevens (1989) cited in Walters (2002) expanded this scope both upstream and downstream to include sources of supply and points of consumption.

1-Advantages of Supply Chain Management

Corbett, Blackburn and Van Wassenhove (1999) show that successful business partnerships yield a number of major benefits.

- Increased market share,
- Inventory reductions throughout the supply chain,
- Improved delivery service,
- Improved quality, and;
- Shorter product development cycles.

Leverick and Cooper (1998) argue that greater competitive advantage can be gained through effective supply chain management. Walters (2002) indicates that supply chain management can lead to:

- Complementary goals/ objectives between supply chain members.
- Greater coordination between supply chain members, enabling such management philosophies as JIT to have a more beneficial effect.
- Greater cost management effectiveness through negotiating prices more closely between supply chain partners as well as arranging more effective purchasing arrangements.

Leverick et al (1998) argue that effective supply chain management reduces risk. By operating in a supply chain, risk is spread throughout the supply chain by negotiating better inventory management between partners (reducing the risk of obsolescence), by negotiating payment arrangements (so that cash can be counted on within a certain timeframe) and even by collectively investing in large projects.

**2-Disadvantages of Supply Chain Management**

Fuller et al (1993) argue that supply chain management is too internally focussed. They believe “we should look beyond our own internal process and see the total value chain…consumers will not pay for our sloppiness”. The whole notion of supply chain management has evolved as a better way to manage inter-firm processes, with a focus on reducing time to delivery, costs, and improving ‘quality’. This approach has not necessarily delivered the maximum value for supply chain members because customer needs are traditionally ignored in favour of achieving some cost target assigned by ignorant management. When value shifts occur, supply chain members often are unaware of it for far too long due to their inward focus. This can lead to grave consequences.

**This internal focus leads to many problems, including:**

- Rigidity of direction and organization. A definite direction assigned by supply chain members leads to solid structures within the supply chain. This is disastrous in turbulent markets where practices such as JIT are inappropriate.
- Ignorance of other stakeholders’ needs. Focussing on suppliers and customers only is not contributory to improving stakeholder value unless stakeholder value has common criteria. In other words, if every stakeholder has the exact same requirements, then the supply chain will flourish and work like a well-oiled machine. In reality, this is very rarely the case.
- A ‘last year plus 10 percent’ mentality. Organizations running under a supply chain arrangement will usually not be hugely innovative or look for new and exciting ways to gain profitability in the long-term. They tend to focus their attention on developing better ways to improve operational efficiency in the current operating environment.

Kumar (1996) shows trust to be an essential aspect of operating within a supply chain framework. Trust is not the easiest thing to come by, especially in tense business relationships where each company is trying to get ahead, sometimes at the expense of supply chain partners.

Kumar (1996) also shows that power relationships within supply chains lead to the supply chain becoming ineffective. “Although exploiting power may be advantageous in the short-run, it tends to be self-defeating in the long-run”.


2.3. Review of Literature

While there is plenty of published literature that explains or espouses SCM, there is a dearth of empirical studies examining logistics and SCM practices. Galt and Dale (1991) study ten organizations in the UK and find that they are working to reduce their supplier base and to improve their communications with the suppliers.

Fernie (1995) carries out an international comparison of SCM in the grocery retailing industry. He finds significant differences in inventory held in the supply chain by the US and European grocery retailers, which could be explained by difference in degrees of their SCM adoption.


Tan (2002) relates SCM practices and concerns to firm’s performance based on data from US companies. He lists nine important supply chain concerns such as lack of sophisticated ICT infrastructure, insufficient integration due to lack of trust and collaboration among the supply chain stakeholders and thereby lack of supply chain effectiveness and efficiencies.

Basnet et al. (2003) report the current status of SCM in New Zealand, while Sahay et al. (2003) discuss supply chain strategies and structures in India.

These surveys rank the perceived importance of some SCM activities, types of hindrances and management tools on the success of SCM using representative samples mostly from manufacturing.

Quayle (2003) surveys supply chain management practice in UK industrial SMEs (Small Manufacturing Enterprises) while Kemppainen and Vepsalainen (2003) probe current SCM practices in Finnish industrial supply chains through interviews of managers in six supply chains. They analyze the change of SCM both in terms of operational practices and organizational capabilities.

Chin et al. (2004) conduct a survey that examines the success factors in developing and implementing supply chain management strategies for Hong Kong manufacturers. Moberg et al. (2002) state that there is little literature on information exchange. Feldmann and Muller (2003) examine the problem of how to establish an incentive scheme to furnish reliable and truthful information in supply chains.

There is little literature on logistics and SCM practices in India. Available literature focuses either on the best practices (Joshi and Chopra, 2004) or on re-engineering of internal operations of the firms (Deshmukh and Mohanty, 2004, Kankal and Pund, 2004).

In context of ICT, Saxena and Sahay (2000) compare the manufacturing intent to be an agile manufacturer and their Information Technology (IT) infrastructure in terms of scope of use, extent of use and integration of IT-based systems.63(Sahay et al., 2006).

Vrat (2004) discusses some issues and challenges as well as the potential of SCM in India. All these studies find Indian firms generally lagging behind their counterparts in the developed countries.

3. METHODOLOGY

3.1. Definition of Method of Analytic Hierarchy Process (AHP): AHP is a mathematical technique used for multi-criteria decision-making. In a way it is better than other multi-criteria techniques, as it is

63-The more recent studies are mainly based on questionnaire surveys and secondary data sources (Sahay and Mohan, 2003, www.etintelligence.com.)
designed to incorporate tangible as well as non-tangible factors especially where the subjective judgments of different individuals constitute an important part of decision making (Saaty, 1980). Apart from other facts, this is rooted in the special structure of the AHP, which follows the intuitive way in which managers solve problems, and in its easy handling compared with other multi criteria decision-making procedures. Hence the intuitively solved decision problems can now be solved as procedure-orientated using AHP. The use of AHP leads to both, more transparency of the quality of management decisions and an increase in the importance of AHP (Ossadnik W & Lange O, 1999).


AHP uses a five-step process to solve decision problems. They are

1) Create a decision hierarchy by breaking down the problem into a hierarchy of decision elements.
2) Collect input by a pair wise comparison of decision elements.
3) Determine whether the input data satisfies a consistency test. If it does not, go back to Step 2 and redo the pair wise comparisons.
4) Calculate the relative weights of the decision elements.
5) Aggregate the relative weights to obtain scores and hence rankings for the decision alternatives.

One of the major reasons for the popularity of AHP is that the decision maker does not require advanced knowledge of either mathematics or decision analysis to perform first two steps (Karapetrovic S & Rosen bloom ES, 1999). Last three steps are computational and can be performed manually or using software such as Expert Choice. However, the first two are the steps where the decision maker is very much involved in the model. On the basis of the decision maker’s understanding of the problem, the hierarchy can be designed and pair wise comparisons can be made of the decision elements. AHP uses redundant judgments for checking consistency, and this can exponentially increase the number of judgments to be drawn out from decision makers.

**Concepts of Pair wise Comparison for Solving AHP:**

\[
\begin{bmatrix}
  w_1 & \cdots & w_j & \cdots & w_n \\
  w_1 & w_1^j & \cdots & w_j & \cdots & w_n^j \\
  \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\
  w_n & w_1^j & \cdots & w_j & \cdots & w_n^j \\
\end{bmatrix}
\]

\[
W \times w = w_1 \begin{bmatrix}
  w_1 & \cdots & w_j & \cdots & w_n \\
  w_1 & w_1^j & \cdots & w_j & \cdots & w_n^j \\
  \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\
  w_n & w_1^j & \cdots & w_j & \cdots & w_n^j \\
\end{bmatrix} = n \begin{bmatrix}
  w_1 \\
  w_j \\
  \vdots \\
  w_n \\
\end{bmatrix}
\]

\[
W \sim w = n \cdot w \rightarrow (W- n \cdot I)w = 0
\]
In real situations, \( w_i / w_j \) is unknown, but \( a_{ij} \equiv w_i / w_j \) and \( a_{ij} = 1 / a_{ji} \) (positive reciprocal), and let. 

\[
A = \begin{bmatrix}
\alpha_{ij}
\end{bmatrix}_{\text{n x n}}
\]

\( A w \equiv n w \Rightarrow (A - \lambda_{\text{max}} I)w = 0 \), find \( \lambda_{\text{max}} \) and find \( w \) with \( \lambda_{\text{max}} \), and calculate 

\[
C.I. = (\lambda_{\text{max}} - n) / (n - 1) \Rightarrow w = (w_1, w_2, \ldots, w_n)
\]

b. \[ \min \sum_{i=1}^{n} \sum_{j=1}^{n} (a_{ij} - \frac{w_i}{w_j})^2, \quad \text{s. t.} \quad \sum_{i=1}^{n} w_i = 1 \]

c. \[ r_i = \left( \prod_{j=1}^{n} a_{ij} \right)^{1/n} \Rightarrow w_i = r_i / \sum_{i=1}^{n} r_i , \quad (\text{normalization}) \Rightarrow w = (w_1, w_2, \ldots, w_n) ,
\]

d. When \( Aw = \lambda_{\text{max}} w \), then \( \lambda_{\text{max}} \) can be estimated by \( \lambda_{\text{max}} = \frac{1}{n} \sum_{i=1}^{n} (Aw)_i / w_i \).

3.1. Population and Sample of Statistics: The purpose of this study is to investigation of the role of management information system, in particular which is the means to detected radio waver (radio frequently identification (RIFD) technology) in Supply Chain Management (SCM). Hence, in this study for determined of population and sample of statistics, we selected the supply chain Iranian Automotive Industry as population of this study. Also, we selected a description-survey methodology. The sample is derived from limited population, based on expert opinion. We have chosen 80 top expert in area of Supply Chain Management (SCM) and radio frequently identification (RIFD and of management information system as flow of table number(1):

<table>
<thead>
<tr>
<th>Number in society</th>
<th>Number of Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>40</td>
</tr>
<tr>
<td>60</td>
<td>52</td>
</tr>
<tr>
<td>90</td>
<td>73</td>
</tr>
<tr>
<td>95</td>
<td>76</td>
</tr>
<tr>
<td>100</td>
<td>80</td>
</tr>
</tbody>
</table>

as approved by the local government officials in mine and industry. According to Morgan Sampling Table (MST) our statistical sample is 80 out of 100 as the total volume of the society.

3.2. Data collection instrument: Technique used in data collection was questionnaire, developed based on a theoretical framework of previous works. Questionnaires have been completed in form of interview and via internet. Meanwhile, in order to compile its theoretical principles, a library method has been utilized.

3.3. Validity and reliability: In order to prepare the questionnaire, first, experts' views were elicited and then the research questionnaire was finally revised. Based on the data illustrated in the following
It is seen that (Chronbach Alpahe) coefficient for 15-item Dimension of Supply Chain Management (SCM) questionnaire is 100, indicating the sample adequacy.

3.4. Introducing variables and indicators: After determining the system indices and specifying the dimensions of stealing, boosting (increasing) efficiency in the inventory control and decreasing costs of Investigation and transfer, we employed multi criteria decision making model (MCDM) and radio frequently identification (RIFD) technology to detect and rank the factors and dimensions. The results indicate that the indicators related to technology radio frequently identification (RIFD), The Experts Respectively, the following indicators are Importance and high priority requirements in supply chain management, that are included: efficiency in inventory control, inspection costs, transportation costs, reduce stealing. That this results can be help in the Supply chain management decisions to improve and efficiency of Supply Chain Management Based on a specific database management systems in organizations.

Table (2): The Dimension of Supply Chain Management (SCM) and Technology Radio Frequently Identification (RIFD)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Dimension of Supply Chain Management (SCM)</th>
<th>Dimension of Technology Radio Frequently Identification (RIFD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-Information Management</td>
<td>Dimensions of Stealing</td>
</tr>
<tr>
<td>2</td>
<td>2-Logistics Management</td>
<td>Boosting (increasing) Efficiency in the Inventory Control</td>
</tr>
<tr>
<td>3</td>
<td>3-Relation Management</td>
<td>Decreasing Costs of Investigation</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Decreasing Costs of Transfer</td>
</tr>
</tbody>
</table>

3.5. Spatial and Temporal Domain of the Study: The present study, based on temporal criterion, is sectional which has been conducted in 2012 to 2013 in form of a survey or is investigation in the information management system in all subcategories of the Supply Chain (SC) the automotive industry dealing with the concepts to analysis the relationships among of partners (customer and suppliers). We selected the supply chain Iranian Automotive Industry as population of this study.

Table (3): The Dimension of Ceriterial and Alternative

<table>
<thead>
<tr>
<th>X</th>
<th>A</th>
<th>Dimension of Supply Chain Management (SCM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X_j</td>
<td>A_j</td>
<td>1-Information Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2-Logistics Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3-Relation Management</td>
</tr>
</tbody>
</table>

Published by Info Invest, Bulgaria, www.sciencebg.net
Information Management

Dimension of Supply Chain Management (SCM)

1-Information Management

Dimensions of Stealing

Boosting (increasing) Efficiency in the Inventory Control

Decreasing Costs of Investigation

Decreasing Costs of Transfer

Dimension of Technology Radio Frequently Identification (RIFD)

2-Logistics Management

Dimensions of Stealing

Boosting (increasing) Efficiency in the Inventory Control

Decreasing Costs of Investigation

Decreasing Costs of Transfer

Dimension of Technology Radio Frequently Identification (RIFD)
4. DATA ANALYSIS

4.1 Kolmogorov-Smirnov

The test is used to determine of normal distribution related to questionnaire as follow;

H₀: data not follow of normal distribution
H₁: Data follow of normal distribution

As shown in Table 4, P-value is less than .05, so the H₀ is rejected and test distribution is normal.

4.2 Calculate of questionnaire reliability

Table 5 shown that Cronbach’s Alpha for questionnaire is .99. Because Cronbach’s Alpha is more than .7 therefore the questionnaire has enough reliability. Similarly, Table 6 indicate that the reliability of 4 group of questionnaire namely A, B, C, and D.
### Table 4: One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th></th>
<th>RIFD</th>
<th>DS</th>
<th>BEIC</th>
<th>DCI</th>
<th>DCT</th>
<th>IM</th>
<th>LM</th>
<th>RM</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Normal Parameters</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>3.06461</td>
<td>2.96340</td>
<td>2.94754</td>
<td>2.89428</td>
<td>3.19234</td>
<td>2.57296</td>
<td>2.76360</td>
<td>2.84074</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>.231</td>
<td>.268</td>
<td>.297</td>
<td>.228</td>
<td>.286</td>
<td>.245</td>
<td>.226</td>
<td>.242</td>
</tr>
<tr>
<td>Positive</td>
<td>.171</td>
<td>.182</td>
<td>.183</td>
<td>.161</td>
<td>.214</td>
<td>.185</td>
<td>.167</td>
<td>.143</td>
</tr>
<tr>
<td>Negative</td>
<td>-.231</td>
<td>-.268</td>
<td>-.297</td>
<td>-.228</td>
<td>-.286</td>
<td>-.245</td>
<td>-.226</td>
<td>-.242</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>2.306</td>
<td>2.680</td>
<td>2.975</td>
<td>2.281</td>
<td>2.860</td>
<td>2.454</td>
<td>2.258</td>
<td>2.415</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.

b. Calculated from data.

### Table 5: Reliability Statistics

<table>
<thead>
<tr>
<th>Reliability Statistics</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>N of Items</td>
<td>8</td>
</tr>
</tbody>
</table>

### Table 6: Dimension of Supply Chain Management (SCM)

<table>
<thead>
<tr>
<th>X, (RIFD)</th>
<th>X, (BEIC)</th>
<th>X, (DCI)</th>
<th>X, (DCT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Information Management</td>
<td>2-Logistics Management</td>
<td>3-Relation Management</td>
<td>Dimension &amp; Reliability</td>
</tr>
<tr>
<td>C (DS) → IM</td>
<td>C (DS) → LM</td>
<td>C (DS) → RM</td>
<td>A → .998</td>
</tr>
<tr>
<td>C (BEIC) → IM</td>
<td>C (BEIC) → LM</td>
<td>C (BEIC) → RM</td>
<td>B → .985</td>
</tr>
<tr>
<td>C (DCI) → IM</td>
<td>C (DCI) → LM</td>
<td>C (DCI) → RM</td>
<td>C → .989</td>
</tr>
<tr>
<td>C (DCT) → IM</td>
<td>C (DCT) → LM</td>
<td>C (DCT) → RM</td>
<td>D → .985</td>
</tr>
</tbody>
</table>
4.3 Priority of Indicators

Analytic Hierarchy Process (AHP) used for priority of indices. AHP need to make tree decision. Hence the relationship between variables is shown in Figure 2.

Figure 2: The relationship between variables

Before the apply AHP alternative has been determined. Hence, Table 7 indicated alternative of survey.

### Table 7 Alternative of survey

<table>
<thead>
<tr>
<th>X_i</th>
<th>X_j</th>
<th>1-Information Management</th>
<th>2-Logistics Management</th>
<th>3-Relation Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(DS)</td>
<td>C(DS)</td>
<td>IM→W_{IM}^{DS}</td>
<td>LM→W_{LM}^{DS}</td>
<td>RM→W_{RM}^{DS}</td>
</tr>
<tr>
<td>C(BEIC)</td>
<td>C(BEIC)</td>
<td>IM→W_{IM}^{BEIC}</td>
<td>LM→W_{LM}^{BEIC}</td>
<td>RM→W_{RM}^{BEIC}</td>
</tr>
<tr>
<td>C(DCI)</td>
<td>C(DCI)</td>
<td>IM→W_{IM}^{DCI}</td>
<td>LM→W_{LM}^{DCI}</td>
<td>RM→W_{RM}^{DCI}</td>
</tr>
<tr>
<td>C(DCT)</td>
<td>C(DCT)</td>
<td>IM→W_{IM}^{DCT}</td>
<td>LM→W_{LM}^{DCT}</td>
<td>RM→W_{RM}^{DCT}</td>
</tr>
</tbody>
</table>

**Note:** Dimension of Technology Radio Frequently Identification (RIFD), C(DS): Dimensions of Stealing, C(BEIC): Boosting (increasing) Efficiency in the Inventory Control, C(DCI) Decreasing Costs of Investigation, C(DCT): Decreasing Costs of Transfer.

4.4 Calculate of Weight of Factors and Alternative

Table 8 has shown weight of indices.
### Table 8 weight of indices

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Name</th>
<th>w</th>
<th>wc</th>
<th>w* wc</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>weight of indices</td>
<td>Weight of Norms</td>
<td>weight of end indices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IM</td>
<td>(DS) W₁</td>
<td>0.36</td>
<td>0.206</td>
<td>W₁/</td>
<td>0.07416</td>
</tr>
<tr>
<td></td>
<td>(BEIC) W₂</td>
<td>0.24</td>
<td>0.239</td>
<td>W₂/</td>
<td>0.05736</td>
</tr>
<tr>
<td></td>
<td>(DCI) W₃</td>
<td>0.21</td>
<td>0.221</td>
<td>W₃/</td>
<td>0.04641</td>
</tr>
<tr>
<td></td>
<td>(DCT) W₄</td>
<td>0.19</td>
<td>0.334</td>
<td>W₄/</td>
<td>0.06346</td>
</tr>
<tr>
<td>LM</td>
<td>(DS) W₁</td>
<td>0.25</td>
<td>0.206</td>
<td>W₁/</td>
<td>0.0515</td>
</tr>
<tr>
<td></td>
<td>(BEIC) W₂</td>
<td>0.3</td>
<td>0.239</td>
<td>W₂/</td>
<td>0.0717</td>
</tr>
<tr>
<td></td>
<td>(DCI) W₃</td>
<td>0.24</td>
<td>0.221</td>
<td>W₃/</td>
<td>0.05304</td>
</tr>
<tr>
<td></td>
<td>(DCT) W₄</td>
<td>0.21</td>
<td>0.334</td>
<td>W₄/</td>
<td>0.07014</td>
</tr>
<tr>
<td>RM</td>
<td>(DS) W₁</td>
<td>0.28</td>
<td>0.206</td>
<td>W₁/</td>
<td>0.05768</td>
</tr>
<tr>
<td></td>
<td>(BEIC) W₂</td>
<td>0.22</td>
<td>0.239</td>
<td>W₂/</td>
<td>0.05258</td>
</tr>
<tr>
<td></td>
<td>(DCI) W₃</td>
<td>0.25</td>
<td>0.221</td>
<td>W₃/</td>
<td>0.05525</td>
</tr>
<tr>
<td></td>
<td>(DCT) W₄</td>
<td>0.25</td>
<td>0.334</td>
<td>W₄/</td>
<td>0.0835</td>
</tr>
</tbody>
</table>

**Not:** Dimension of Technology Radio Frequently Identification (RIFD), C(DS): Dimensions of Stealing, C(BEIC): Boosting (increasing) Efficiency in the Inventory Control, C(DCI) Decreasing Costs of Investigation, C(DCT): Decreasing Costs of Transfer. & 1-Information Management (IM), 2-Logistics Management (LM), 3-Relation Management (RM).

### 5. CONCLUSION

The aim of the study is the survey of the role of system (RIFD) in supply chain management (SCM) by using MCDM in the Iranian automobile industry. Hence, the result of the survey indicated that:

1- In base output of the software among the factors (IM), DS is the best alternative and DCI is the lowest alternative.

2- In base output of the software among the factors (LM), DS is the best alternative and BEIS is the lowest alternative.

3- In base output of the software among the factors (RM), DCT is the best alternative and BEIC is the lowest alternative.

In addition, the result state that all of the factors related to the system (RIFD) in SCM.

### REFERENCES


Abstract
To ensure monitoring functioning in the Russian Federation the new means and technologies are being introduced, this allowing the quality and utilization of land resources to be observed. An integrated approach to land resources use, based on the agro-ecological land evaluation, landscape planning and designing, is to result in soil fertility maintenance and enhancement of economic growth of farm production, this ensuring stable production for the processing and industrial enterprises, as well as prediction of objective land prices.

Key words: monitoring, land resources, production, farming, land price

После аграрной реформы и инноваций в области землепользования в Российской Федерации произошли существенные перемены, связанные с приватизацией земель сельскохозяйственного назначения и организацией хозяйств с различной формой собственности.

В соответствии с данными государственной статистической отчетности Российской Федерации на 1 января 2012 года площадь земель сельскохозяйственного назначения составила 22,7% от всего земельного фонда РФ, без учета внутренних морских вод и территориального моря (Доклад, 2012. С.6).

Земли данной категории выступают как основное средство производства в сельском хозяйстве, имеют особый правовой режим и подлежат особой охране, направленной на сохранение их площади, предотвращение развития негативных почвенных процессов и повышение плодородия почв.

К данной категории отнесены земли, предоставленные различным сельскохозяйственным организациям (товариществам и обществам, кооперативам, государственным и муниципальным унитарным предприятиям, научно-исследовательским учреждениям). В нее входят также земельные участки, предоставленные гражданам для ведения крестьянского (фермерского) хозяйства, личного подсобного хозяйства, садоводства, огородничества, животноводства, сенокошения и выпаса сельскохозяйственных животных. Кроме этого, к категории земель сельскохозяйственного назначения отнесены земли, выделенные казачьим обществам и родовым общинам. В состав сельскохозяйственных угодий входят: пашни, сенокосы, пастбища, залежи, земли, занятые многолетними насаждениями (садами, виноградниками и другими). В структуре распределения земельного фонда Российской Федерации по состоянию на 1 января 2012 г. площадь сельскохозяйственных угодий в составе земель всех категорий составила 220,3 млн га, в том числе в составе земель сельскохозяйственного назначения – 196,3 млн га, или Наибольшую площадь из земель сельскохозяйственного назначения составляет пашня – 30%. Разнообразие природно-климатических условий по регионам РФ предопределило различия в структуре...
сельскохозяйственных угодий, о чем свидетельствуют данные землепользований по Оренбургской области, характерные по многим показателям другим входящим субъектам зоны Южного Урала. В Оренбургской области площадь пашни насчитывается – 57,7%, сенокосов – 6,3%, многолетних лесных насаждений – 0,1%, пастбищ – 35,9%, сельскохозяйственных угодий – 4,2% от всей площади земель сельскохозяйственного назначения (10473,0 тыс. га) (Региональный доклад, 2012. С. 12).

На протяжении двадцати лет в целом по Российской Федерации наблюдалось ежегодное сокращение площади сельскохозяйственных угодий. За период с 1991 по 2012 годы площадь сельскохозяйственных угодий уменьшилась на 2,0 млн. га, сокращение площади земель, используемых под пашню, составило более 10,9 млн га. В то же время площадь земель под сенокосами и пастбищами увеличилась на 4,2 млн га, под залежью – на 4,8 млн га.

![Рисунок1– Состав земель сельскохозяйственного назначения РФ на 01.01.2012, млн га](Доклад, 2012. С.–10)
Использование земель в сельскохозяйственных целях осуществляется организациями различных организационно-правовых форм, большинство из них представлено сельскохозяйственными коммерческими организациями, предприятиями и объединениями гражданами. За период (1999–2012 гг.) получивших права собственности на земельную долю количество граждан сократилось на 22,3% и соответственно уменьшилась общая площадь земельных долей (табл. 1).

Собственники земельных долей в процессе распоряжения земельными долями предпочитали сдавать их в аренду, а не в уставный капитал сельскохозяйственных предприятий и организаций, так как при этом сохранялась право собственности на земельные доли. Сдаются в аренду государственные и муниципальные земли сельскохозяйственного назначения. Так, в 2011 г. по Оренбургской области эти земли были сданы в аренду на площади 947,4 тыс. га и насчитывалось 5306 сделок (Рег.доклад, 2012). В течение 2011 года по данным Росреестра по РФ более 43 тыс. граждан на площади 929,6 тыс. га сформировали земельные участки в счет земельной доли и оформили их в частную собственность. Средняя площадь землепользования доли в целом по стране составила 21,0 га.

Таблица 1– Сведения о земельных долях по РФ
( по состоянию на 1 января соответствующего года)

<table>
<thead>
<tr>
<th>Наименование</th>
<th>1999 год</th>
<th>2012 год</th>
<th>1999 г. к 2012 г. (+ \–)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Земли реорганизованных сельскохозяйственных предприятий, переданные гражданам с правом собственности на земельную долю:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– общая площадь земельных долей (млн. га)</td>
<td>115,4</td>
<td>97,6</td>
<td>-17,8</td>
</tr>
<tr>
<td>– количество граждан-собственников земельных долей (млн)</td>
<td>11,8</td>
<td>9,2</td>
<td>-2,6</td>
</tr>
</tbody>
</table>

Примечание–Доклад, 2012. С.41

В результате мероприятий по разграничению государственной собственности на землю в собственности Российской Федерации и муниципальной собственности – 92,2 %, в собственности граждан – 7,0%, в собственности юридических лиц – 0,8% (рис. 2), тогда как в Оренбургской области на эти собственности приходится соответственно 39%, 58,7% и 2,3%.

Эффективное использование сельскохозяйственных угодий определяется организацией производственных процессов на продуктивных угодьях, но также зависит от упорядоченности землепользований и определения юридической состоятельности правообладателей земельных участков. В этой связи перед сельскохозяйственными товаропроизводителями остро стоит проблема проведения землеустроительных и кадастровых работ, кадастрового учета используемых ими в сельскохозяйственном производстве земельных участков.
В настоящее время их проведение приходится осуществлять за счет собственных средств хозяйств. В связи с дефицитом финансовых ресурсов у сельскохозяйственных товаропроизводителей около 80% организаций и граждан, занимающихся производством сельскохозяйственной продукции, до сих пор не смогли оформить свое право на использование земельных участков.

Обширные территории, занимаемые сельскохозяйственными землями, разнообразными природно-климатическими условиями и показателями свойств почв агроландшафтов, на которых довольно сложно вести эффективно производство без планового хозяйства, а также из-за отсутствия карт внутрихозяйственного землеустройства сельскохозяйственной освоенности территорий с границами полей севооборотов, сельскохозяйственных полигонов и контуров, государственного контролируемого и научного мониторинга, наземных станций, в том числе и метеорологических, отсутствия авиационной поддержки ввиду высокой стоимости ее содержания. На этих землях в силу различного рода природных процессов и хозяйственной деятельности человека происходит постоянное изменение границ посевных площадей, условий вегетации сельскохозяйственных культур, свойств почвенного плодородия. Во многих регионах Российской Федерации, в том числе Оренбургской области, отсутствие актуальной картографической основы не позволяет решать поставленные задачи мониторинга. Имеющиеся в большинстве субъектов Российской Федерации топографические и почвенные карты относятся к середине 80-х – началу 90-х годов прошлого века. Темпы работ по централизованному обновлению карт существенно снизились, при этом за последние годы состояние агроландшафта изменилось, особенно в интенсивно развивающихся регионах.

Одним из инструментов решения части поставленных задач является создаваемая Министерством сельского хозяйства Российской Федерации в рамках Государственной программы развития сельского хозяйства и регулирования рынков сельскохозяйственной продукции, сырья и продовольствия на 2008–2012 годы (постановление Правительства Российской Федерации от 14 июля 2007 г. № 446) система дистанционного мониторинга земель сельскохозяйственного назначения, совмещенная с наземными обследованиями.
Сельскохозяйственных угодий, которая является составной частью системы государственного информационного обеспечения в сфере сельского хозяйства. Для обеспечения функционирования мониторинга внедряются новые средства и технологии, системы наблюдений, сбора и обработки информации, в том числе на основе данных дистанционного зондирования Земли как наиболее объективных и оперативных в применении, что позволяет одновременно вести наблюдение за использованием земли, а также давать прогноз развития сельскохозяйственных культур и величины потенциального урожая. Проводимая оценка динамики использования и состояния земель на основе сравнительного анализа разновременных картографических материалов, данных дистанционного зондирования Земли и наземных обследований с целью выявления сценариев развития процессов и прогноза ситуации базируется на использовании современных геоинформационных технологий.

Кроме мониторинга земель методами дистанционного зондирования Министерство сельского хозяйства Российской Федерации с помощью федеральных государственных учреждений – центров, станций агрохимической службы и федеральных государственных учреждений (центров химизации и сельскохозяйственной радиологии) – осуществляет мониторинг состояния плодородия почв путем ежегодных наземных обследований сельскохозяйственных угодий на площади 16 млн гектаров, что позволяет в течение 10 лет исследовать все полигоны и контуры сельскохозяйственных угодий Российской Федерации. На основании результатов проведенных обследований сформирована постоянно обновляемая многоуровневая база данных плодородия почв (район – субъект Российской Федерации – федеральный округ – Российская Федерация), содержащая данные за последние 10 лет. В основные показатели мониторинга плодородия почв включены содержание гумуса, кислотности рН, подвижных форм фосфора и калия, представленные по отдельным округам зоны Южного Урала и Оренбургской области в таблице 2. Как видим, из приведенных данных следует отметить, что наибольшие потери гумуса отмечаются в Приволжском федеральном округе, в том числе и Оренбургской области. В меньшей степени почвы нуждаются в калии, больше – в подвижном фосфоре. Низкая кислотность определяет внесение известковых мелиорантов. В Оренбургской области в проводимом мониторинге, выполняемом государственным центром агрохимической службы «Оренбургский», определяются и показатели микроэлементов (бор, марганец, молибден, медь, цинк, кобальт, йод и другие), что важно при возделывании овошных и полевых культур. Однако, на наш взгляд, приведенные показатели не совсем характеризуют агроэкологическую оценку земель, где отсутствуют элементы рельефа, степень эродированности, засоленности и солонцеватости, участие солонцовых и эрозионных земель в комплексе с зональными почвами. Таблица 2 – Показатели очень низких свойств почв, в % от обследованной площади

<table>
<thead>
<tr>
<th>Федеральный округ, область</th>
<th>Гумус, %</th>
<th>Кислотность рН, менее 5,5</th>
<th>Фосфор</th>
<th>Калий</th>
</tr>
</thead>
<tbody>
<tr>
<td>Уральский округ</td>
<td>4,6</td>
<td>47,5</td>
<td>52,5</td>
<td>2,1</td>
</tr>
<tr>
<td>Приволжский округ</td>
<td>32,0</td>
<td>38,4</td>
<td>21,5</td>
<td>7,3</td>
</tr>
<tr>
<td>Оренбургская область</td>
<td>26,5</td>
<td>0,0</td>
<td>38,3</td>
<td>10,8</td>
</tr>
</tbody>
</table>

Примечание – Доклад МСХ РФ. 2012
Недостатком проектов является и то, что рекомендуемые мероприятия по внесению минеральных и органических удобрений не привязаны к агроэкологической оценке земель, различных по агромелиоративным свойствам, возделываемых культурам и севооборотам в целом. Деградация земель в настоящее время представляет одну из важнейших социально-экономических проблем, которая наносит огромный ущерб продуктивному потенциалу земельного фонда России и создает угрозу экологической, экономической и в целом национальной безопасности страны. Только в Оренбургской области насчитывается около 70% почв, подверженных эрозионным процессам, более 2 млн. га солонцов и солонцеватых почв (до 25%, 50 % и более, расположенных в комплексе с зональными почвами), различных по агромелиоративным свойствам.

В России и регионах страны ученными накоплен определенный опыт в эффективном использовании этих земель, и на практике с применением проектирования адаптивно-ландшафтных систем земледелия и современных агroteхнологий можно добиться сохранения плодородия почв и получение стабильного урожая зерновых, масличных и кормовых культур. Одним из факторов, влияющих на стабильное производство продукции растениеводства и животноводства, является недостаточная финансовая обеспеченность хозяйств, хотя на отдельные виды работ товаропроизводители получают дотацию от государства.

В настоящее время в агропромышленном комплексе открылись большие перспективные возможности для мониторинга земельных ресурсов в соответствии с государственным возрождением начатых работ, учитом продвижения космических направлений и их применения в сельском хозяйстве. На основе данных дистанционного зондирования Земли и наземных наблюдений, выполняемого государственными центрами агрохимической службы в округах на территории 60 субъектов Российской Федерации осуществляется мониторинг пашни, находящейся в обороте. В то же время иными федеральными органами исполнительной власти в соответствии с установленными полномочиями осуществляется мониторинг земель и формируются соответствующие государственные информационные ресурсы.

Одновременно Федеральной службой государственной регистрации, кадастра и картографии также осуществляется ведение государственного мониторинга земель в Российской Федерации, учитывая фонд данных, полученных в результате проведения кадастровой оценки, а также официальный статистический учет наличия и распределения земель в границах территориальных образований и ежегодно готовит государственный (национальный) доклад о состоянии и использовании земель в Российской Федерации.

Так, по данным управления федеральной службы государственной регистрации, кадастра и картографии по Оренбургской области экологический мониторинг земель Оренбургской области осуществляется с 1993 года (Региональный доклад. Оренбург. 2012. С.82). Региональная сеть земельного мониторинга Оренбургской области включает земли всех категорий и состоит из 66 полигонов, 491 реперного участка, 21 катены. В настоящее время мониторинг проводится ООО Научно-производственным предприятием «Гипрозем». Выявление в природопользовании региона экологически чрезвычайных ситуаций и их анализ необходим с целью сохранения окружающей среды. Однако целесообразнее было бы эти данные использовать не только с целью статистических данных и контрольных цифр, но и при планировании, хозяйственном использовании агросистем, проектировании территорий и разработке систем землепользований.

В первый период аграрной реформы целью и задачи государственной кадастровой оценки земель сельскохозяйственного назначения (2001 г.) и других категорий земель были закреплены Земельным кодексом Российской Федерации (статьи 65, 66) и Налоговым кодексом Российской Федерации.
Федерации (глава 31), определяющими юридические основы создания налоговой базы для исчисления земельного налога и иных платежей за землю. Информационной основой работ по государственной кадастровой оценке земель сельскохозяйственного назначения являлись данные по массовой экономической оценке сельскохозяйственных угодий, полученные в период с 1971 по 1990 гг. в результате проведения четырёх туров экономической оценки сельскохозяйственных земель. Эта оценка земель была осуществлена по единой методике на основании информации о природно-технологических свойствах почв и производственно-экономической деятельности сельскохозяйственных предприятий (колхозов и совхозов). Кроме того, в 1989–1991 годах в Российской Федерации были выполнены работы по массовой внутрихозяйственной оценке земель на территории всех существовавших на тот момент сельскохозяйственных предприятий. В результате работ получили каждое поле севооборота, рабочий участок или земельный контур внутри землепользования колхоза или совхоза. Однако на сегодня эти данные устарели и требуют дополнительной оценки. К сожалению, судя по кадастровой документации, выданной предприятиям различных форм собственности в Оренбургской области, отсутствуют планы землеустройства севооборотов, не показаны состояние сельскохозяйственных угодий и их плодородие, порой не выделены участки пашни, сенокосов и пастбищ, нет конкретных рекомендаций по их использованию.

При всем положительном подходе и недостатках в работе мониторинг земель сельскохозяйственного назначения в основном носит разрозненный, ведомственный характер. Отсутствует межведомственная координация и организация этих работ.

Анализ государственной кадастровой оценки земель сельскохозяйственного назначения показал, что стоимость земель зависит от многих факторов. В основном методики по кадастровой оценки земель (2001) положены бонитет почв, месторасположение участка, стоимость продукции, издержки производства, ренту и срок капитализации.

Как показали наши исследования, в оценке земель и ренте большую роль играют природно-климатические факторы, что можно проследить на примере Оренбургской области. По природно-сельскохозяйственному районированию (ПСХР) территория Оренбургской области целиком отнесена к равнинной территории интенсивного земледелия и животноводства, 3-м природно-сельскохозяйственным зонам (степной, сухостепной, лесостепной) и 3-м провинциям (Заволжской, Предуральской, Казахстанской). На территории области выделено 8 природно-сельскохозяйственных районов очень разнообразных по климатическим условиям, почвам, рельефу и биологической продуктивности (Д.И. Шашко, 1990).

1. Северный лесостепной природно-сельскохозяйственный район, Предуральская провинция. Возвышенополинистый (Бугульминско-Белебеевская возвышенность) глинистый и тяжелосуглинистый; типичн - и выщелоченно-черноземный карбонатно-черноземный. Средне обеспечен теплом (Σ Τ акт. – 2300˚), полузасушливый (КУ – 0,66), КС (по Н.Н. Иванову) – 181. Средней биологической продуктивности. Число дней активной вегетации 106.


IV. Провинция Казахстанская низкогорно-лесостепная. Количество осадков за год – 350 – 400 мм, ГТК – 0,6 – 0,8. Сумма эффективной температуры выше 10°C – 2400°.

V. Низкогорно-степная Казахстанская. Климат засушливый, ГТК – 0,6 – 0,8, сумма осадков за год – 300 – 350 мм, сумма температур свыше 10°C равна 2400°.


VIII. Юго-восточный сухостепной природно-сельскохозяйственный район, Казахстанская провинция. Плоско- и плосковолнисторавнинный (Тургайская столовая страна), легкосуглинистый и песчаный, темно-каштановый, солонцеватый и солонцовый. Среднеобеспеченный теплом (Σ Т акт. – 2425°). Очень засушливый.

В условиях рынка рентные отношения находят свое проявление в земельном налогове, арендной плате за землю, в цене земли, как категории, характеризующей процесс купли-продажи земельных участков. Анализ ренты сельскохозяйственных угодий в динамике по природно-сельскохозяйственным районам Оренбургской области показал, что в зависимости от почвенно-климатических условий провинций, зоны сумма ренты государственной стоимости земель варьирует в 2011г. от 527 до 2588 руб./га (табл.3).

Таблица 3 – Показатели государственной кадастровой оценки земель

по Природно-сельскохозяйственным районам (ПСХР) Оренбургской области, 2011 г.

<table>
<thead>
<tr>
<th>Земельно-оценочный район по ПСХР</th>
<th>Балл бонитета сельскохозяйственных угодий</th>
<th>Расчетный рентный доход, тыс. руб./га</th>
<th>Кадастровая стоимость, тыс. руб./га</th>
</tr>
</thead>
<tbody>
<tr>
<td>Северный лесостепной</td>
<td>75</td>
<td>2,588</td>
<td>85,407</td>
</tr>
<tr>
<td>Центральный степной</td>
<td>62</td>
<td>1,363</td>
<td>44,979</td>
</tr>
</tbody>
</table>
С изменением ренты увеличивается кадастровая стоимость участка и соответственно налог на землю. Следует отметить, что по природно-сельскохозяйственным зонам оценка плодородия почв варьирует от 36 до 75 баллов, а сумма ренты увеличивается от сухостепной к степной и лесостепной зоне. Прослеживается высокая корреляционная зависимость ренты от балла бонитета почв (R = 0,74). Таким образом, цена земли сельскохозяйственных угодий зависит от многих факторов, особенно в нашем случае играют большую роль показатели свойств почв и природно-климатические факторы (R = 0,95).

На современном этапе после аграрной реформы, приватизации земель с выделением долей в собственность образование предприятий различных форм собственности усложняет рациональное их использование. Специфика учета сельскохозяйственных земель как природного ресурса, используемого в качестве главного средства производства в сельском хозяйстве, требует иных комплексных подходов, а главное на наш взгляд, упорядочения государственной землеустроительной службы и стабилизации в использовании земель сельскохозяйственного назначения с учетом аренды на срок капитализации. К сожалению, в хозяйствах различных форм собственности наблюдаются периодические (от 1 года до 5 лет) перемены в землепользовании, присутствие разных собственников, сдача в аренду на год то одному, то другому арендатору. Отсюда нестабильность структуры посевных площадей сельскохозяйственных культур, несоблюдение севооборотов, отсутствие набора адаптивных культур по предшественникам и агромелиоративным свойствам почв, а также принципов экологизации технологий и землепользований.

В целом по Российской Федерации, несмотря на снижение посевной площади зерновых и зернобобовых культур на 31,% в сравнении с 1990 г., урожайность по годам близка (табл. 4). Следует отметить увеличение площади посевов под подсолнечником в 2,7 раза, в отдельных хозяйствах до 30% и более, что связано с рынком сбыта и более высокой стоимостью, чем зерновые культуры.

Как видим, стоимость продукции на рынке имеет немаловажное значение для товаропроизводителей, однако не нужно забывать в этом случае о фитосанитарном состоянии агроландшафтов. В регионах России учеными накоплен определенный опыт по эффективному и рациональному использованию сельскохозяйственных угодий. Недостатком, на наш взгляд, в связи с перестройкой и реформированием предприятий и управления ими является то, что нет комплексного подхода в исследованиях и внедрении, отсутствуют государственные службы по наведению порядка в землеустройстве и кадастре. Хотя имеется определенный опыт по внедрению технологий защиты растений от вредителей, болезней и сорняков, к примеру,
представительство в г. Оренбурге компании «Bayer Crop Science», которая в сотрудничестве с НИИ, вузами и хозяйствами различных форм собственности эффективно работает на протяжении многих лет.

При проведении государственного мониторинга сельскохозяйственных земель должна быть межведомственная координация и организация этих работ, включая внедрение научно-технического прогресса с целью эффективного использования таких земель в сельском хозяйстве, обеспечение доступа юридических и физических лиц к информации о состоянии сельскохозяйственных земель.

Таблица 4– Посевная площадь и урожайность основных сельскохозяйственных культур в Российской Федерации

<table>
<thead>
<tr>
<th>Культура</th>
<th>Посевная площадь, тыс. га</th>
<th>Урожайность, ц/га</th>
</tr>
</thead>
<tbody>
<tr>
<td>Зерновые и зернобобовые</td>
<td>63068</td>
<td>47553</td>
</tr>
<tr>
<td>Пшеница – всего</td>
<td>24244</td>
<td>28698</td>
</tr>
<tr>
<td>Рожь – всего</td>
<td>8007,5</td>
<td>2147</td>
</tr>
<tr>
<td>Ячмень – всего</td>
<td>13723</td>
<td>9035</td>
</tr>
<tr>
<td>Технические культуры</td>
<td>6110,6</td>
<td>8962</td>
</tr>
<tr>
<td>в том числе:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>лен-долгунец</td>
<td>418</td>
<td>69</td>
</tr>
<tr>
<td>сахарная свекла (фабричная)</td>
<td>1460,5</td>
<td>819</td>
</tr>
<tr>
<td>подсолнечник</td>
<td>2739,2</td>
<td>6196</td>
</tr>
</tbody>
</table>

Примечание – Доклад МСХ РФ, 2012

Учеными вузов и РАСХН под руководством академиков В. И. Кирюшина, Л.А. Иванова разработано методическое руководство (2005) «Агроэкологическая оценка земель и проектирование агротехнологий в адаптивно-ландшафтных системах земледелия», где изложена четкая концепция систем земледелия на новой основе природопользования, что явилось целью и задачами в оценке мониторинга земель. Однако, решение поставленных задач должно осуществляться не отдельными фрагментами, а в комплексе, основой которых должно быть проектирование землеустройства с дифференцированной разработкой в проектах адаптивно-ландшафтных систем земледелия и агротехнологий. Интегрированным подходом, согласно методологии В.И. Кирюшина(1993), как системы использования земли данной агроэкологической группы, ориентированной на производство продукции экономически и экологически обусловленного количества и качества в соответствии с общественными (рыночными) потребностями, природными и производственными ресурсами, обеспечивающей устойчивость агроландшафта и воспроизводство почвенного плодородия. В условиях Южно
Урала имеются научные разработки, подтверждающие теоретическими и научно-практическими данными, апробированными в хозяйствах Оренбургской области. При интегрированных системах земледелия и технологий, уровнях интенсификации, даже в зоне рискованного земледелия Южного Урала на различных агроэкологических группах земель можно стабильно получать зерна высокого качества (1 и 2 класса) с урожайностью до 1,8–3,0 т/га (Дубачинская, 2009).

Supported by the Russian Humanitarian Research Fund, project № 12-12-56007а

Литература


Государственная программа развития сельского хозяйства и регулирования рынков сельскохозяйственной продукции, сырья и продовольствия на 2008–2012 годы, утвержденная постановлением Правительства Российской Федерации от 14 июля 2007 г. № 446.

Концепция развития государственного мониторинга земель сельскохозяйственного назначения на период до 2020 года. Распоряжение Правительства РФ от 30 июля 2010 г. № 1292-р.

Региональный доклад о состоянии и использовании земель в Оренбургской области в 2011 г.

Земельный кодекс Российской Федерации (2001, ст. 65, 66).

Налоговый кодекс Российской Федерации (2001, гл.31).


STUDING OF STRUCTURAL CHANGES IN NATIONAL ECONOMY

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Abstract

In this paper we study the structural changes in the Ukrainian economy through structural and dynamic analysis, which determines the speed and intensity of the changes taking place within the structure. The initial data we used data of the State Statistics Service of Ukraine for 1996 - 2011 years, making it possible to draw sound conclusions on the calculations. Based on the results proposed measures to maintain the positive dynamics of the structural changes in economic activity in Ukraine.

Key words: Structure, structural changes, structural changes, economic activity sector.
Б.М.Данилишина, С.И.Дорогунцова, Б.Е.Кваснюка, В.Е.Коломойцева, И.И.Лукинова, Л.В.Минина, В.С.Найдёнова, М.М.Якубовського и др.

Структура национальной экономики любого государства имеет три важные характерные черты: она неоднородна по своей природе; представлена в виде иерархии, в которой четко выделяются уровни; позволяет пропорционально развиваться каждому элементу, который ее составляет. В процессе своего развития именения структуры проявляются в качественных экономических преобразованиях, результатом которых являются структурные сдвиги. Существуют различные трактовки понятия «структурные изменения». На наш взгляд, наиболее четкое определение дано в словаре современной экономической науки под редакцией Лапотникова Л.И.: «структурные сдвиги в экономике [structural changes in national economy] — изменения в структуре экономической системы под воздействием различных экономических и внекоммерческих факторов, процессов управления экономической системой. Измеряются с помощью таких характеристик, как соотношение темпов роста и прироста экономических показателей отдельных структурных подразделений (отраслей, секторов и т. д.), изменения в процентных удельных весах или в долях этих подразделений в общем объеме общественного производства. Прогрессивными структурными сдвигами следует считать те, которые приводят, в конечном счете, к повышению долгосрочной эффективности экономической системы» [5].

Следовательно, структурный сдвиг определяется наличием качественных изменений во взаимосвязи между сопоставляемыми элементами экономической системы и описывается через неравномерность динамики соотношения их количественных характеристик, что дает возможность определить границы, когда изменение в структуре перерастает в структурный сдвиг. По мнению большинства экономистов, причиной появления структурных сдвигов в экономике являются изменения, происходящие в системе потребностей хозяйствующих субъектов и, как следствие, изменения в пропорциях распределения трудовых и финансовых ресурсов между воспроизводственными секторами и видами деятельности. Такого рода структурные сдвиги происходят в момент, когда возникает резкий дисбаланс структуры экономики, что провоцирует появление кризисных явлений и, как следствие, появление новой структуры экономики, адаптированной под новые экономические условия.

РИС. 1. СХЕМА ИССЛЕДОВАНИЯ СТРУКТУРНЫХ СДВИГОВ В ЭКОНОМИКЕ УКРАИНЫ
Главной отличительной чертой структурных сдвигов является наличие четкой отправной точки начала этих сдвигов - изменение в системе потребностей субъектов хозяйственной деятельности и возможность определить достигнута цель или нет. Поэтому можно выдвинуть гипотезу о том, что структурные изменения в экономике народного хозяйства страны являются результатом различных структурных сдвигов разной природы и направленности, что наглядно проявилось на примере системного структурного кризиса в Украине конца XX — начала XXI [1,2,6].

Структурные сдвиги в экономике страны характеризуются как качественными, так и количественными проявлениями, поэтому предлагается анализ изменения структуры экономики проводить в этих двух направлениях. На рис. 1 представлена схема исследования структурных сдвигов в экономике Украины.

Исходными данными для изучения структурных изменений в экономике Украины послужили данные Государственной службы статистики по показателю валовой добавленной стоимости (ВДС) в разрезе видов экономической деятельности.

На рис.2 представлена структура валовой добавленной стоимости (ВДС) по видам экономической деятельности за период 1996-2011 гг. в относительном выражении (в процентах от общего объема ВДС страны).

РИС.2 СТРУКТУРА ВАЛОВОЙ ДОБАВЛЕННОЙ СТОИМОСТИ ПО ВИДАМ ЭКОНОМИЧЕСКОЙ ДЕЯТЕЛЬНОСТИ ЗА ПЕРИОД 1996-2011 ГГ.
Анализ представленных на рис.2 данных позволил сделать ряд выводов:


2) второе место в структуре валовой добавленной стоимости занимают прочие виды экономической деятельности, к которым были отнесены: финансовая деятельность, операции с недвижимостью, аренда, инжиниринг и предоставление услуг предпринимателям, государственное управление, оплата услуг финансовых посредников. Увеличение данного вида деятельности начинается с 2000 года, когда в Украине было создано свыше 200 банков, 1300 инвестиционных компаний и фондов, функционировало около 300 страховых компаний. К 2007 году народное хозяйство Украины набрало хорошие темпы экономического роста. В этот период были заключены сделки о проджоде таких украинских банков как ТAC-Комерцбанк, Укрсоцбанк и Правэкс-банка зарубежным инвесторам, сумма от их продажи составила более $3 млрд. В результате корпоративный сектор экономики Украины смог получить мощный источник финансирования для ряда своих стратегических проектов. Финансовый кризис 2008 года оказал сильное влияние на украинскую финансовую систему: паника вкладчиков, деальвация гривны на 60%, крах нескольких банков и рынка недвижимости, а также значительными сокращениями персонала в украинских компаниях. Одни банки, такие как Укрпромбанк, находятся в стадии ликвидации, другие, такие как Проминвестбанк, сумели найти нового инвестора и вернуть прежние позиции [11]. Следует отметить, что влияние кризисных явлений в наибольшей степени проявились в 2010 году, так удельный вес составил 25 %, по сравнению с 2009 годом, где он составлял 28%. Не лучшая ситуация наблюдается и в 2011 году – 23,5% в общем объеме валовой добавленной стоимости. Однако, несмотря на подобную неустойчивость данных видов деятельности, их развитие характеризуется общей возрастающей тенденцией;

3) начиная с 2005 года, увеличивается доля торговли, ремонта автомобилей, бытовых изделий и предметов личного пользования. Если 2005 году удельный вес данного вида деятельности составлял 10%, то в 2011 году - 13,9% перегнав по объемам ВДС в общем объеме ВДС страны сельское хозяйство, которое всегда считалось для Украины одним из основных видов экономической деятельности. Так, 2002 году удельный вес сельскохозяйственной деятельности составлял 11,1%, а в 2011 году только 7,6%, то есть за десять лет произошло значительное снижение, которое составило - 3,5 п.п.;

4) изменения в удельном весе по всем анализируемым видам экономической деятельности носят непрерывный характер. При этом, если для видов деятельности, которые занимаются производством и выпуском продукции, начиная с 2000 года, характерна тенденция к спаду, то по видам деятельности, которые предоставляют услуги, наоборот присутствует её рост. Особенностью развития экономической деятельности в Украине так же является незначительный её отклик на мировой финансовый кризис 2007 - 2008 гг. Как видно из рис. 2 только промышленность была чувствительна к возникшей ситуации, все остальные виды деятельности практически не изменили тенденции своего развития. Одной из причин такой реакции на кризис можно назвать вступление Украины во Всемирную торговую организацию в
2008 году. Данное действие носит двунаправленный характер: позитивным для страны является тот факт, что произошло улучшение условий для украинского экспорта, в первую очередь это затронуло лидеров: металлургию и химическую промышленность; негативным проявлением стало открытие украинского рынка для вхождения зарубежных товаров зачастую с низким качеством, но при этом более выгодными условиями продажи, что привела к формированию неравных условий в конкуренции. Для выхода из данной ситуации необходимо пересмотреть свои обязательства в отношении тарифов по правилам ВТО с целью активизации внутреннего производства. Пересмотр может коснуться 370 тарифных линий. Однако данные действия не в полной мере могут решить проблемы в экономике Украины, поэтому правительство сформировало комплекс программ, направленных на повышение уровня конкурентоспособности продукции в доминантных видах деятельности за счет поддержания и развития инновационно активных предприятий.

Таким образом, можно говорить, что структура валовой добавленной стоимости на стадии трансформации рыночных отношений экономики Украины еще не в полном объеме отвечает условиям как европейской, так и мировой рыночной системы.

На сегодняшний момент в соответствии с принятой Европейским Союзом в 2007 году оценкой структуры экономики страны она должна иметь такие пропорции: 50% - суммарная доля высокотехнологичных (20%) и средневысокотехнологичных производств (30%); 50% - суммарная доля низкотехнологических (30%) и средневысокотехнологичных (20%) производств. Сочетание этих показателей с показателями ядра видовой структуры экономики составляют эмпирическое правило развития экономик, обеспечивающее наибольшую её устойчивость. Структура экономики Украины не соответствует этому правилу именно в его «технологической части», которая наиболее полно отражает эффективность изменения в видовой структуре народного хозяйства [12].

Таким образом, структурные изменения, которые происходят в экономике Украины, находятся под влиянием двух сил: с одной стороны, это влияние мировых тенденций в экономике на структурные сдвиги в видах экономической деятельности страны и как следствие на масштаб и интенсивность данного процесса, с другой, это процессы, которые происходят внутри государства и влияют на скорость протекания данных изменений.

На рис.3 представлена динамика цепных темпов роста удельных весов по видам экономической деятельности.
рис. 3. темпы роста удельного веса валовой добавленной стоимости по видам экономической деятельности

В целом, для изменения темпов по всем видам деятельности характерна однородная динамика. Так, за периоды 1997-1999 гг. и 2003-2011 гг. значения темпов варьируются вокруг 100% с небольшими отклонениями. Наиболее проблемным для всех видов экономической деятельности оказался период 2000-2002 гг., когда наблюдался как существенный рост, так и существенное падение объемов ВДС по сравнению с предшествующим годом, что свидетельствует об изменениях в структуре экономики страны, вызванных воздействием внешних факторов мирового рыночного окружения и неустойчивостью внутренней экономической политики. Все это свидетельствует о том, что национальная экономика Украины имеет стабильную структуру, а видами деятельности, которые наиболее подвержены структурным изменениям, являются строительство, образование и сельское хозяйство.

Для поддержания позитивной тенденции стабильности структуры экономики необходимо вовремя влиять на факторы, которые могут вызывать структурные изменения в экономике, а также выявлять те виды деятельности, которые требуют наибольшего внимания со стороны государства (так называемые стратегические отрасли), которые зачастую самостоятельно не в состоянии решить проблемы, связанные со структурными сдвигами.

Для решения данных задач необходимо использовать методы, которые, с одной стороны, позволяют оценить и проанализировать процессы, происходящие внутри вида деятельности, с другой, дают возможность на основе полученных результатов принимать взвешенные управленческие решения по регулированию структурными изменениями. По мнению авторов таким методом является метод структурно – динамического анализа, который достаточно прост.
в расчетах, но при этом позволяет получить хорошие результаты, которые достаточно легко можно интерпретировать с экономической точки зрения.

Статистический инструментарий проведения структурно-динамического анализа структурных изменений в экономике Украины представлен в табл.1. Все показатели сгруппированы в соответствии с направлениями по которым проводится оценка структурных изменений в экономике государства (рис.1).

Таблица 1

ПОКАЗАТЕЛИ ОЦЕНКИ СТРУКТУРНЫХ ИЗМЕНЕНИЙ В ЭКОНОМИКЕ ГОСУДАРСТВА

<table>
<thead>
<tr>
<th>Название показателя</th>
<th>Формула расчета</th>
<th>Экономическая интерпретация</th>
</tr>
</thead>
<tbody>
<tr>
<td>Показатели оценки интенсивности структурных сдвигов [3,9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Абсолютные структурные сдвиги:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>линейные</td>
<td>L_{abd} = \frac{\sum</td>
<td>d_2 - d_1</td>
</tr>
<tr>
<td>квадратические</td>
<td>\sigma_{abd} = \sqrt{\frac{\sum(d_2 - d_1)^2}{n}}</td>
<td>оценивает, на сколько процентных пунктов в среднем отклоняются друг от друга удельные веса частей в сравниваемых совокупностях</td>
</tr>
<tr>
<td>Относительные структурные сдвиги [3,9]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>линейные</td>
<td>L_{отн} = \sum \frac{d_2 - d_1}{d_1} \times d_1</td>
<td>показывает среднюю интенсивность изменения удельных весов отдельных частей совокупности</td>
</tr>
<tr>
<td>квадратические</td>
<td>\sigma_{отн} = \sqrt{\left(\sum \frac{d_2 - d_1}{d_1} \right)^2} \times d_1</td>
<td>показывает, на сколько в среднем отклоняются коэффициенты (темпы) роста отдельных частей совокупности от их среднего значения, равного единице (100%)</td>
</tr>
<tr>
<td>Интегральный коэффициент структурных сдвигов K. Гатева</td>
<td>K_{инт} = \sqrt{\frac{\sum(d_2 - d_1)^2}{\sum d_2^2 + \sum d_1^2}}</td>
<td>учитывает интенсивность изменений по отдельным группам и удельный вес групп в сравниваемых структурах</td>
</tr>
<tr>
<td>Обобщающий показатель структурных сдвигов А.Салаи</td>
<td>I_c = \sqrt{\frac{\sum(d_2 - d_1)^2}{(d_2 + d_1)^2}}</td>
<td>учитывает интенсивность изменений по отдельным группам, удельный вес групп в сравниваемых структурах, а также число групп</td>
</tr>
<tr>
<td>Индекс В.Рябцева</td>
<td>I_R = \sqrt{\frac{\sum(d_2 - d_1)^2}{\sum(d_2 + d_1)^2}}</td>
<td>определяет направление развития, приближение или удаление от «еталонной» структуры, положительные или отрицательные структурные сдвиги (различия)</td>
</tr>
<tr>
<td>Показатели оценки массы (масштабов) структурных сдвигов</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Масса (масштаб) структурного сдвига</td>
<td>M_i = d_i^1 - d_i^0</td>
<td>дает возможность сравнивать различные, напрямую не связанные сдвиги в экономической структуре.</td>
</tr>
</tbody>
</table>
Индекс структурных сдвигов

\[
I_{sc} = \frac{M_{i}^{1}}{M_{i}^{0}}
\]

- \( M_{i}^{1} \) - масса структурного сдвига в отчетном периоде;
- \( M_{i}^{0} \) - масса структурного сдвига в базисном (фиксированном) периоде.

Определяет количество структурных элементов со сходными интересами, которые формируют определенный сдвиг, выраженный как в относительных (долях), так и в абсолютных (стоимостных) единицах на данном промежутке времени [4].

Показатели оценки скорости структурных сдвигов

\[
V = \frac{M_{i}^{1} - M_{i}^{0}}{T}
\]

- \( T \) – период осуществления структурного сдвига.

Показывает изменение массы структурного сдвига за определенный промежуток времени, выраженное в долях или процентах [4,7].

Среднегодовой абсолютный прирост удельного веса \( i \)-ой структурной части за \( n \) периодов

\[
\Delta \bar{d} = \frac{d_{i}^{1} - d_{i}^{0}}{n - 1}
\]

характеризует динамику структурных сдвигов отдельных элементов совокупности, показывая, как быстро изменяются их значения во времени [6].

Среднегодовой темп роста удельного веса \( i \)-ой структурной части за \( n \) периодов

\[
\bar{T}_{p} = \sqrt[n]{\frac{d_{i}^{1}}{d_{i}^{0}}}
\]

показывает скорость роста (снижения) отдельных элементов совокупности во времени относительного их базового уровня [6].

Результаты расчета показателей оценки интенсивности структурных сдвигов, представлены на рис 4 – 6.
РИС. 4. ПОКАЗАТЕЛИ ОЦЕНКИ ИНТЕНСИВНОСТИ СТРУКТУРНЫХ СДВИГОВ ПО ВИДАМ ЭКОНОМИЧЕСКОЙ ДЕЯТЕЛЬНОСТИ В УКРАИНЕ

По данным, приведенным на рис. 4, можно сделать вывод о том, что в экономике Украины присутствуют структурные изменения, связанные со структурными сдвигами, которые происходят внутри видов экономической деятельности. Каждый из рассчитанных индексов имеет как свои достоинства, так и недостатки. Общим недостатком для интегрального индекса К. Гатева и А. Салаи выступает сложность интерпретации полученных результатов из-за диапазона изменения данного показателя, который соответствует [0 ÷ 100%].

Поэтому, для того чтобы сделать вывод о специфике процесса необходимо данные показатели рассчитывать в динамике и только отталкиваясь от их среднего значения за период делать вывод о наличии/отсутствии структурных сдвигов. Так же следует отметить, что, например, обобщающий показатель структурных сдвигов А. Салаи зависит от числа градаций структуры, поэтому сравнивая его с другими индексами, следует учитывать данную особенность. Наиболее адекватным и хорошо интерпретируемым является критерий В. Рябцева, так как он имеет свою шкалу, которая позволяет сделать более адекватные выводы относительно структурных изменений (табл. 2). Результаты расчетов можно проверить на правильность, используя соотношение, выработанное В.М. Рябцевым: при числе наблюдений больше двух всегда I_Рябцева < K_Гатева < I_Салаи.
Таблица 2

ШКАЛА ОЦЕНКИ МЕРЫ СУЩЕСТВЕННОСТИ СТРУКТУРНЫХ РАЗЛИЧИЙ ПО КРИТЕРИЮ В. РЯБЦЕВА [9]

<table>
<thead>
<tr>
<th>Интервал значений</th>
<th>Характеристика меры структурных различий</th>
</tr>
</thead>
<tbody>
<tr>
<td>0,000 – 0,030</td>
<td>Тождественность структур</td>
</tr>
<tr>
<td>0,031 -0,070</td>
<td>Весьма низкий уровень различий структур</td>
</tr>
<tr>
<td>0,071 -0,150</td>
<td>Низкий уровень различий структур</td>
</tr>
<tr>
<td>0,151 -0,3</td>
<td>Существенный уровень различий структур</td>
</tr>
<tr>
<td>0,301 -0,5</td>
<td>Значительный уровень различий</td>
</tr>
<tr>
<td>0,501 – 0,7</td>
<td>Весьма значительный уровень различий</td>
</tr>
<tr>
<td>0,701 – 0,9</td>
<td>Противоположный тип структур</td>
</tr>
<tr>
<td>0,901 и выше</td>
<td>Полная противоположность структур</td>
</tr>
</tbody>
</table>

Сопоставляя результаты рис. 4 с интерпретацией табл. 2 можно сделать вывод о том, что для экономики Украины данный критерий максимального значения достигал в 2001 году – 0,415. Это свидетельствует о значительном уровне различий в видовой структуре национальной экономики, в дальнейшем тенденция идет к снижению и в 2011 году его значение составило 0,0366, что свидетельствует о весьма низком уровне различия структуры. Таким образом, структура ВДС по видам экономической деятельности постепенно выравнивается, что позволяет сделать вывод об эволюционном пути развития экономики Украины и о стабильности структуры экономики Украины.

Рис.5. ДИНАМИКА АБСОЛЮТНЫХ КОЭФФИЦИЕНТОВ СТРУКТУРНЫХ СДВИГОВ
На рис. 5 представлена динамика абсолютных коэффициентов структурных сдвигов. По данным, полученным в результате анализа линейного и квадратического коэффициента структурных сдвигов можно сделать вывод, что наибольшее отклонение по данным показателям наблюдалось в период с 1999 года по 2002 год, что свидетельствует об определенной изменчивости видовой структуры экономики страны. Начиная с 2004 года, хотя и наблюдается рост значения квадратического коэффициента структурных сдвигов, однако его максимальное значение соответствует 0,04, что свидетельствует об отсутствии существенных видовых структурных сдвигов в экономике Украины.

С целью выявления интенсивности процесса структурных изменений рассчитаны коэффициенты относительных структурных сдвигов (линейный и квадратический). Результаты расчетов представлены на рис. 6.

**РИС. 6. ДИНАМИКА ОТНОСИТЕЛЬНЫХ КОЭФФИЦИЕНТОВ СТРУКТУРНЫХ СДВИГОВ**

По данным рис. 6 можно сделать вывод, что наиболее интенсивные изменения в структуре экономики произошли в 2002 году, однако следует сделать поправку на то, что в этот период Украина перешла на новый классификатор видов экономической деятельности, поэтому такой всплеск, может быть объяснен объективными обстоятельствами. В дальнейшем структурные сдвиги носили эволюционный характер, что отражено на рис. 6.

Следующим этапом в исследование структурных изменений в экономике является расчет показателей, которые оценивают массу (масштаб) структурных сдвигов. В табл. 1 представлены формулы для расчета данных показателей, а в табл. 3 приведен их расчет, в котором за базу сравнения взят 1996 год, так как он был годом стабильного развития экономики государства и по оценкам экспертов был годом начала глубоких трансформаций в народном хозяйстве.
В результате анализа полученных данных в табл.3 можно сделать следующие выводы:

1) масштабные структурные сдвиги в видах деятельности произошли в 2000 году, например, в сельском хозяйстве прирост составил 8,5 п.п., в промышленности 11,10 п.п., в строительстве – 7,8 п.п., то есть структурные изменения стали происходить в основных видах экономической деятельности экономики страны. Это свидетельствует о наращивании объемов производства и выпуска продукции в данный период;

2) начиная с 2001 г. и по 2009 г. наблюдалось увеличение структурных изменений в видовой структуре экономики, в частности, в сельском хозяйстве масса структурного сдвига стабилизировалась только к 2009 году и составила -7,00 п.п., в промышленности этот процесс приостановился только в 2010 году, снижение составило - 5,00 п.п., такая же тенденция присуща и строительству - 4,00 п.п. Однако, начиная уже с 2011 года наблюдается увеличение структурных сдвигов по этим видам деятельности;

3) на фоне этих изменений увеличивается доля торговли, ремонт автомобилей, бытовых изделий и предметов и других видов экономической деятельности. Переломным был 2009 год когда в
торговле, ремонте автомобилей, бытовых изделий и предметов произошло увеличение массы структурного сдвига на 5,9 п.п., а по другим видам экономической деятельности на 5,1 п.п.
Следовательно, можно говорить о наличии структурных изменений в экономике Украины. Результаты расчета показателей оценки скорости структурных сдвигов представлены на рис. 7 и в табл. 4.

РИС.7. ДИНАМИКА СКОРОСТИ СТРУКТУРНЫХ СДВИГОВ ПО ВИДАМ ЭКОНОМИЧЕСКОЙ ДЕЯТЕЛЬНОСТИ

По данным рис. 7 можно сделать вывод, что, начиная с 1999 г., наблюдается увеличение скорости структурных сдвигов в торговле, ремонте автомобилей, бытовых изделий и предметов, других видах экономической деятельности (в частности, финансовых услугах); после 2000 года сформировалась устойчивая тенденция к снижению скорости структурных сдвигов в сельском хозяйстве, деятельности транспорта и связи, строительстве, промышленности.
Анализ результатов рис. 7 и табл.4 позволил сделать следующие выводы: во-первых, наибольшее изменение в скорости структурных сдвигов по видам экономической деятельности произошли в 1999 – 2001 годах, когда активно происходили процессы приватизации и развивался финансовый сектор экономики; во-вторых, скорость структурных сдвигов по разному изменялась в видовой структуре: среднегодовые темпы роста в торговле, ремонте автомобилей, бытовых изделий и предметов составили 7% в год, а по другим видам экономической деятельности – 2,2%. Это говорит о бесконтрольном развитии этих видов деятельности в ущерб развития промышленности, сельского хозяйства и других отраслей.

Как видно из рис. 7 доминанты экономики Украины имеют отрицательный индекс структурных сдвигов, что в соответствии с методикой ООН свидетельствует о наличие глубокого спада в экономике и такая тенденция сохраняется до 2011 года. Для выявления причин возникновения подобной ситуации необходимо проводить более глубокие исследования, что предполагается осуществить в дальнейшей работе. Однако уже сейчас можно сказать о наличии негативной характеристики структурных сдвигов, так как индекс находится в отрицательной области, что в свою очередь свидетельствует о сокращении объемов производства. [10].

Таким образом, проведенные исследования позволяют сделать общий вывод, что украинская экономика находится на стадии структурных изменений, которые спровоцированы структурными сдвигами в видовой структуре экономической деятельности. Позитивным моментом является тот факт, что они происходят без резких подъемов или спадов, следовательно, данный процесс носит эволюционные черты развития. При этом следует отметить тот факт, что существует ряд специфических ограничений, которые будут влиять на структурные изменения и которые необходимо учитывать при формировании сбалансированной структурной политики государства:
1) отправной точкой, проведения структурных изменений в народном хозяйстве Украины, является структура, которая сложилась в условиях командно-административной системы СССР и характеризовалась системой централизованного распределения, как ресурсов, так и выпускаемой продукции. При этом данная система была оторвана от тех процессов, которые происходили в мире, то есть не учитывались основные тенденции, которые складывались на рынке товаров и услуг, что приводило к появлению значительных деформаций по всем отраслям, выпускающим товары и услуги, их низкой конкурентоспособностью при высоком уровне государственной монополизации производства и обращения;

2) регулирование структуры экономики должно проводиться с учетом особенностей развития экономики Украины, то есть с учетом невысокого уровня потребительских накоплений и инвестиций, преобладания в экспортной структуре сырьевой составляющей на фоне снижения объемов в обрабатывающей промышленности (в частности машиностроительной отрасли), что снижает уровень инвестиционной привлекательности Украины;

3) структурные изменения происходят на фоне все еще значительной тенденции экономики, что не способствует быстрому проведению данных изменений.

В таких условиях возрастает роль государства, которое выступает в качестве регулирующего органа в процессе осуществления структурных изменений в народном хозяйстве, направленных на формирование институтов, ответственных за проведение реформаторских решений в сфере модернизации экономики и выхода её на новый уровень экономического развития. В основе подобных преобразований лежит Государственная программа структурной перестройки экономики, разработанная до 2015 г., которая предполагает реализацию трех основных этапов [1,8]:

I этап (1994-1995 гг.) - стабилизация экономики;
II этап (1996-2005 гг.) - активизация экономического развития;

Конечной целью данной программы является создание высокоэффективной социально ориентированной экономики, которая может на высоком уровне конкурировать с экономиками развитых стран мира. Для реализации этой идеи необходимо внедрить в производство новейшие достижения научно–технического прогресса, стимулировать развитие инновационной деятельности по всем направлениям экономической деятельности, переходить на производства с низким потреблением природного сырья, способствовать развитию отраслей, которые имеют экспортную направленность, разрабатывать мероприятия направленные на балансирование народного хозяйства на все уровнях.

Таким образом, фокусом дальнейших исследований в данном научном направлении, на наш взгляд, выступает изучение природы структурных изменений для стран с небольшой историей построения рыночных отношений (эволюционный или революционный характер изменений), определение причин и источников возникновения структурных дисбалансов, формирование сложноструктурного механизма регулирования структурных изменений в экономике государства.
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TAX PLANNING METHODOLOGY IN RUSSIA
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Abstract
This article introduce the basic stages of the development the theory and methodology review of the tax planning in the organizations. In whole, the basic theory of the tax planning can be considered and established, but its methodical support is still on formation stage. The authors bring to the discussion of the issues the creation of the methodological basis tax planning in modern conditions.

Key words: glide tax, optimization, theory, methodology, principles, methods, information base, legal regulation, classification.

Налоги – одно из наиболее важных звеньев финансово-экономических отношений в обществе с момента возникновения любого государства. Во все времена и во всех странах налогоплательщики предпринимали множество усилий по снижению их выплаты. И современная Россия, с ее сложной налоговой системой, носящей преимущественно фискальный характер, не является в этом плане исключением. Любой руководитель рассматривает «обязательный, индивидуально безвозмездный платеж, взимаемый с организаций и физических лиц … в целях финансового обеспечения деятельности государства» как потерю денежного потока для бизнеса. Возникает определенное противоборство между налогоплательщиками по снижению налоговых выплат, с одной стороны, и государством, с его заинтересованностью максимально пополнить бюджет и пресечь любые противоправные действия по уклонению от их уплаты, с другой. С нашей точки зрения, налоговое планирование – это, своего рода, «нейтральная полоса», на которой государство и бизнес могут и должны находить компромиссные решения в легальных способах (моделях, методах) оптимизации налоговой нагрузки во всем многообразии определяющих ее факторов.

В отечественной экономической литературе исследования, посвященные вопросам налогового планирования как самостоятельного финансового направления, появились лишь в конце 90-х годов. Авторами первых публикаций являлись, главным образом, государственные советники налоговой службы, которые по роду своей деятельности располагали необходимой информационной базой для анализа, прогнозирования и установления причинно-следственных связей в системе налогового планирования на макroeconomicском уровне и др. А первым нормативным документом, в котором говориться о налогом планировании на уровне хозяйствующих субъектов, стал приказ Минэкономики России "Об утверждении Методических..."
рекомендаций по реформе предприятий (организаций)". В этих рекомендациях налоговое планирование упоминается в контексте схемы взаимосвязей структурных подразделений предприятия на этапе выработки вариантов учетной политики и помесячного прогнозного бюджетирования денежных средств.

Начавшаяся на рубеже нового века налоговая реформа и, особенно, введение с 1 января 2002 года 25 главы Налогового Кодекса РФ «Налог на прибыль организаций», вызвала активный профессиональный интерес к разработке общей теории и методологии налогового планирования.

В специальной периодической литературе стали появляться публикации, в которых развернулись широкая дискуссия о правовом поле и базовых понятиях налогового планирования (таких как принципы, методы, элементы, задачи и т.д.). Тему налогового планирования начали профессионально разрабатывать аудиторы, финансисты, налоговые юристы. В крупных организациях начали образовываться структуры, занимающиеся управлением налоговых выплат, а сам вид этой финансовой деятельности получил название «налоговый менеджмент».

И, как результат, в 2007 году на страницах печати впервые появился образец должностной инструкции специалиста по налоговому планированию с подробным описанием не только прав и обязанностей, но и сфере профессиональной подготовки, законодательства, бухгалтерский и налоговый учет, отчетность, информационные технологии и др. Мы можем констатировать: по состоянию на начало 2012 года общая теория налогового планирования применительно к российскому законодательству, в целом, создана. В частности, выделены базовые принципы налогового планирования: 1. Принцип законности (или легитимности). Налоговое планирование должно основываться на нормах законодательства, а не на его противоречиях, пробелов или, тем более, разнонаправленных постановлениях арбитражных окружных судов по одному и тому же вопросу.

2. Принцип эффективности (или выгодности). Экономический эффект, получаемый от решений в области налогового планирования, должен в достаточной степени превосходить затраты, которые необходимо осуществить для их (т.е. решений) реализации, и не сопровождаться риском привлечения налогоплательщика к налогово-правовой ответственности.

3. Принцип реальности и доступности. Руководству организации следует выбирать максимально простые и понятные инструменты или методы в области налогового планирования, которые оно в состоянии исполнить.

4. Принцип альтернативности. При осуществлении налогового планирования следует рассматривать и анализировать, по возможности, все реальные альтернативные варианты

67 Приказ Минэкономики РФ от 01.10.1997 N 118 "Об утверждении Методических рекомендаций по реформе предприятий (организаций)".


69 Шальцева М.С., Особенности налогового планирования в российских компаниях, Журнал "Финансовый вестник: финансы, налоги, страхование, бухгалтерский учет", 2010, N 11.

70 Максимова Т.Н., "Налоговое планирование", "ГроссМедиа", "РОСБУХ", 2011.
принятия решений с привлечением юридической, финансовой и бухгалтерской служб организации или приглашенных экспертов.

5. Принцип непрерывности. В связи с тем, что процесс изменения налогового законодательства в России носит перманентный характер, налоговое планирование должно осуществляться непрерывно и максимально оперативно. В качестве справочной информации отметим, что в 2011 году вторая часть Налогового кодекса РФ менялась 30 раз, в 2010 году этот «показатель» составлял семнадцать редакций, в 2009 году – девятнадцать редакций и т.д. и т.п., и, судя по количеству новых законопроектов и инициатив этот «вал» в ближайшие годы остановлен не будет.

6. Принцип системности. В налоговом планировании организация должна рассматриваться как сложная система с многообразием внутренних и внешних связей различных типов и конфигураций. Совершенно очевидно, среди указанных принципов невозможно выделить какой-либо главенствующий или второстепенный. Все они должны рассматриваться во взаимосвязи друг с другом, которая придает совокупности приведенных принципов налогового планирования системный характер.

Развитие теории налогового планирования вывело его последние годы на качественно новый уровень. А именно на его понимание не только как экономического явления, но и как объекта правового регулирования. Это в свою очередь, предполагает разграничение принципов налогового планирования как экономического понятия от принципов налогового планирования как правового института. Профессиональные исследования, посвященные именно такой постановке проблемы, начали появляться лишь с 2007 года71, 72 и др.

1. Принцип допустимости налоговой экономии. Это базовый принцип правового регулирования налогового планирования, который определяет возможность существования налогового планирования как правового и экономического явления. Возможность налогового планирования основывается, прежде всего, на праве частной собственности, закрепленном в ст. 35 Конституции РФ.

2. Принцип соответствия хозяйственной операции целям делового характера - одна из важнейших установок налогового планирования как правового института. Его содержание выработано главным образом сложившейся судебной практикой и доктриной налогового права.

3. Принцип документального подтверждения совершенной хозяйственной операции. Его содержание сводится к требованию обязательного документального подтверждения любого уменьшения налоговой обязанности. Этот принцип основывается на требованиях налогового кодекса, в большинстве статей которого содержаться ссылки на документальное подтверждение проводимых операций.


72 Овчинникова Н.О., Практика использования налогового планирования и налогового консультирования, Журнал "Право и экономика", № 10, 2007.
4. Принцип диалектического взаимодействия автономии налогового права и использования в нем гражданскo-правовых конструкций. Содержание этого принципа сводится к ответу на вопрос о возможности использования в ходе налогового планирования различных гражданскo-правовых конструкций, а также, о пределах такого использования.

Кроме установления принципов теория налогового планирования в целом завершила определение его целей и задач, подчиненных общим целям и задачам организации. Большинство авторов устанавливают достаточно схожие задачи налогового планирования в организациях, и др.:  
- выбор оптимального варианта ведения хозяйственной деятельности и размещения активов, направленного на достижение возможно более низкого уровня налоговых обязательств;  
- прогнозирование налоговых отчислений предприятия в краткосрочном и долгосрочном периодах;  
- оперативное и эффективное управление имеющимися ресурсами и денежными потоками;  
- снижение рисков финансовых затруднений, а также налоговых последствий за несвоевременное исполнение обязанностей налогоплательщика;  
- выявление фактического налогового потенциала.

Следует отметить, что одной из наиболее важных теоретических разработок последних лет в области налогового планирования явилось построение его классификационной структуры по различным системообразующим признакам. Наиболее подробно и аналитично этот материал представлен Жигачевым А.В., юрисконсультом ООО "Пересвет-Регион-Саратов-Строй", в своей книге "О некоторых вопросах налогового планирования". В целом, виды налогового планирования могут классифицироваться, в частности, по следующим основаниям:

1. В зависимости от формы предпринимательской деятельности:  
- налоговое планирование деятельности индивидуальных предпринимателей;  
- налоговое планирование деятельности организаций.

2. В соответствии со стадией хозяйственной деятельности:  
- налоговое планирование на стадии создания и организации бизнеса (выбор формы предпринимательской деятельности, выбор территории ведения бизнеса, выбор системы налогообложения и т.д.);  
- налоговое планирование на стадии развития бизнеса;  
- налоговое планирование в процессе хозяйственной деятельности;  
- налоговое планирование на стадии ликвидации бизнеса.

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73 Киселева И. Основные направления налогового планирования в организациях, Газета "Финансовая газета", 2011, N 7.
74 Урман Н.А. Эффективное налоговое планирование, Библиотека Журнала "Налоговый вестник", 2010.
75 Хаустов И.А. Налоговое планирование и уклонение от уплаты налогов - где эта грань?, Газета "Налоги", 2009, N 47.
76 Жигачев А.В. О некоторых вопросах налогового планирования (Материал подготовлен для системы КонсультантПлюс), 2009.
3. Исходя из объемов хозяйственной деятельности:
- налоговое планирование малого бизнеса;
- налоговое планирование среднего бизнеса;
- налоговое планирование крупного бизнеса;
- налоговое планирование в интегрированных структурах (холдинги, корпорации и т.д.).

4. В зависимости от объектов налогового планирования:
- налоговое планирование деятельности в целом;
- налоговое планирование структурных подразделений.

5. Исходя из направленности и масштабов налогового планирования:
- стратегическое налоговое планирование;
- оперативное (текущее) налоговое планирование.

Постепенное формирование общей теории налогового планирования должно было повлечь за собой, естественным образом, и разработку методических основ. Однако если общие вопросы налогового планирования представлены множеством публикаций, то разработка методического обеспечения представлено в гораздо меньшем объеме. Описание методик налогового планирования зачастую носит лишь тезисный характер. Большинство работ посвящены, собственно, не методическому обеспечению процесса налогового планирования как структурированного комплекса пошаговых решений, а отдельным вопросам исчисления налоговой нагрузки, определению налогового потенциала, оценке эффективности налогового планирования и анализу типичных схем минимизации налогов. Тем не менее, предложены и даны определенные характеристики следующим основным методам налогового планирования:
- расчетно-аналитический метод;
- нормативный метод;
- балансовый метод (или налоговый бюджет);
- экономико-математические методы;
- метод оптимизации плановых решений;
- метод формирования налогового поля (в том числе офшор).

Расчетно-аналитический метод предполагает расчет показателей на основе анализа достигнутых величин за прошедшие периоды, индексов их изменения и экспертных оценок развития. Нормативный метод применяется при расчете плановых показателей по действующим нормативам - налоговым ставкам, нормируемым расходам, нормам амортизационных отчислений и т.д. Балансовый метод состоит в создании бухгалтерской модели хозяйственной или финансовой ситуации. Экономико-математических методы дают информацию о критериях оптимальности в налоговом планировании, что позволяет по каждой конкретной ситуации рассчитать эффективность различных вариантов решения. Сущность метода оптимизации плановых решений заключается в разработке ряда вариантов возможных решений, оценке эффективности каждого и выборе наиболее оптимального. С помощью этого метода решаются основные задачи стратегического налогового планирования. Налоговое поле представляет собой информационную налоговую базу, включающую в себя перечень налогов, подлежащих уплате.
исходя из осуществляемых видов деятельности, статуса, региона расположения, наличия структурных подразделений, размеров ставок, источников начисления, видов и размеров льгот, сроков уплаты и получателей. Классическим вариантом налогового поля является оффшор.

Ни один из предложенных методов не является универсальным. В этой связи нам представлялось бы правильным вести разработку методического обеспечения налогового планирования для бизнес-структур как комплекса, включающего в себя фундаментальные элементы теории и прикладные экономико-математические модели.

При этом само налоговое планирование следовало бы рассматривать не как гарантированное уменьшение налоговой нагрузки. Такой подход позволил бы соединить в одно целое большинство факторов влияния:

- прямое прогнозирование налоговых баз в отчетном (налоговом) периоде;
- прогнозирование налоговых баз исходя из анализа конъюнктуры рынка, российского законодательства и международных правовых актов;
- индексация финансовых показателей предыдущих налоговых периодов и их факторный анализ с выделением налоговой составляющей.

Важным идеологическим моментом такой модели, приближающей ее к универсальной, явилась бы постановочная часть задачи, позволяющая по выбору любого пользователя исключить те или иные информационные блоки, которые никак не связаны с его интересами. Например, не каждая бизнес-структура может всерьез рассматривать ведение своей деятельности с использованием оффшоров, или, наоборот, масштабы и специфика деятельности не позволяют организации ориентироваться на специальные налоговые режимы и т.д.

Другим важным моментом является анализ изменения в процессе налогового планирования не только нормативно-правового обеспечения в области налогообложения, но и российского законодательства в целом. Это, в первую очередь относится к изменениям гражданского, трудового, таможенного и административного законодательства, а так же нормативной базе, регулирующей внешнеэкономическую деятельность.

30 мая 2013 года Правительством РФ были одобрены Основные направления налоговой политики страны на 2014 год и на плановый период 2015 и 2016 годов. Основные направления налоговой политики позволяют определять бизнес-ориентиры с учетом планируемых изменений в налоговой сфере на трехлетний срок. На период 2014 - 2016 гг. приоритеты Правительства РФ в области налоговой политики остаются прежними - создание эффективной и стабильной налоговой системы, обеспечивающей бюджетную устойчивость в среднесрочной и долгосрочной перспективе. Основными целями налоговой политики продолжают оставаться поддержка инвестиций, развитие человеческого капитала, повышение предпринимательской активности. В Основных направлениях налоговой политики подчеркивается, что достигнутый к настоящему времени уровень налоговой нагрузки, с одной стороны, соответствует минимальному уровню нагрузки развитых стран, с другой - обеспечивает стабильную наполняемость бюджетов всех уровней.

Таким образом, внесение существенных изменений в структуру налоговой системы, а также введение новых налогов в среднесрочной перспективе не предусматривается. Согласно Основным направлениям планируется внесение изменений в законодательство о налогах и сборах в целях как налогового стимулирования, так и повышения доходов бюджетной системы Российской Федерации.
Формирование наиболее эффективной системы налогообложения невозможно без взвешенной государственной политики. Но ни одна из статей Налогового кодекса (а это основной нормативный акт в налоговых правоотношениях) не содержит ни определения налоговой оптимизации, ни налогового планирования, ни приравнивания ее к незаконным действиям. Налоговое планирование - тема, актуальность которой трудно переоценить. В той или иной степени налоговым менеджментом занимаются все бизнес-структуры. Тем не менее, следует констатировать, что законодательство до сих пор не регламентированы те положения, которые уже выработаны в этой сфере экономической теорией, доктриной налогового права и судебной практикой. Специалисты единодушны в том, что «недостатки правовой регламентации отношений в сфере налогового планирования ведут к неустойчивости экономических отношений, нездоровому положению в сфере предпринимательства, незащищенности участников оборота. От степени разработанности правовой регламентации налогового планирования, его пределов, критериев и допустимости, отграничения от уклонения от уплаты налогов во многом зависит эффективность экономики государства».

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Contents

RECENT TRENDS IN DIVIDEND POLICY OF ESTONIAN COMPANIES
Priit Sander, Jaanus Kariler, Karmen Viiikmaa
School of Economics and Business Administration, University of Tartu, 4 Narva Road, Tartu, Estonia

THE MAINTENANCE FINANCING OF ESTONIAN NATIONAL ROAD NETWORK – PRESENT AND THE FUTURE
Rene Pruunsild, Dago Antov
1Tallinn University of Technology, Faculty of Civil Engineering, Department of Logistics, 19086 Tallinn, Estonia

INFLUENCE OF NEW TECHNOLOGIES IN HEALTHCARE IN ECONOMICAL ASPECT
Rumyana T. Yaneva,
Medical University – Sofia, Faculty of Public Health, Department of Health Economics, 1527 Sofia, Bulgaria

ACCESS TO GENERAL PRACTITIONERS AS SEEN FROM THE PATIENTS
Ralitsa ZL. Zlatanova-Velikova, Tihomira Zl. Zlatanova, Dobrina N. Laleva, Tsvetelina Petrova-Gotova, Emilian N. Radev
1Medical University – Sofia, Faculty of Public Health, Department of Health Policy and Management, Sofia, Bulgaria
2Medical University – Sofia, Faculty of Public Health, Department of Health Economics, 1527 Sofia, Bulgaria
3Medical University – Sofia, Faculty of Public Health, Department of Health Economics, 1527 Sofia, Bulgaria

FOREIGN TRADE RELATIONS OF THE REPUBLIC OF TAJIKISTAN
A. Ahrorova, Z. I. Safarova,
Tajik Technical University named after academician M.S. Osimi, Dushanbe, Republic of Tajikistan

THEORETICAL ASPECTS OF IMMOVABLE PROPERTY TAX
Sandra Stucere, Gunita Mazure
Faculty of Economics, Latvia University of Agriculture, Svētes iela 18, Jelgava, LV-3001, Latvia

A DISTRICT CONSTRUCTION UNION MODEL
Seniha Celikhan, Duygu Yalcin
Gebze Yüksek Teknoloji Enstitüsü, İstanbul Üniversitesi

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SOME CONSIDERATIONS REGARDING THE MANIFESTATION OF THE SHADOW ECONOMY IN THE EUROPEAN UNION
Serju Dumitrescu, Marioua Avram
University from Craiova- Faculty of Economics and Business Administration
78
FINANCING OF DENTAL HEALTHCARE IN BULGARIA FOR THE PERIOD 1998-2013
Natalia M. Shtereva-Nikolova
Faculty of Public Health, Medical Univercity, Sofia, Bulgaria
89
EVALUATION OF COMPETITIVENESS OF LATVIA’S SMALL AND MEDIUM-SIZED FURNITURE MANUFACTURING ENTERPRISES
Sigita Liše¹, Jānis Mārcins²
¹Latvia University of Agriculture,
²Latvian Association of Wood Processing Entrepreneurs and Exporters
97
CORPORATE SOCIAL RESPONSIBILITY VERSUS CORPORATE SOCIAL IRRESPONSIBILITY
Sorin-George Toma¹, Paul Marinescu¹
¹Faculty of Administration and Business, University of Bucharest, 4-12 Regina Elisabeta, Bucharest, Romania
109
MULTIPLE INTELLIGENCES IN THE BUSINESS ENVIRONMENT
Marinescu Paul; Toma Sorin-George;
Faculty of Business and Administration - University of Bucharest
116
ANTI - MONEY LAUNDERING
Stoyan T. Nalbantov
Cernorizets Hrabar Free University of Varna, Department of Public Safety
Chaika Resort, 9007 Varna, Bulgaria
129
MONEY LAUNDERING RISK MANAGEMENT IN THE BANKING SYSTEM
Stoyan T. Nalbantov
Cernorizets Hrabar Free University of Varna, Department of Public Safety, Chaika Resort, 9007 Varna, Bulgaria
140
THE IMPACT OF THE WORLD FINANCIAL CRISIS 2007+ ON THE COMPETITIVE POSITION OF A NATIONAL ECONOMY ILLUSTRATED WITH THE EXAMPLE OF POLAND
Katarzyna B. Czech
University of Economics in Katowice
152
THE MAIN DIRECTIONS OF NATIONAL INNOVATION CLIMATE DEVELOPMENT
Roman V. Dronov¹, Veronika N. Rudchenko²
¹ Department of commercial law and economic security, Saint-Petersburg State University of Economics, Sadovaya st., 21, Saint-Petersburg, Russia
² Department of Management National Research University “Higher school of economics” Promichlennaia st, 17, Saint-Petersburg, Russia
163

EVALUATION OF PRESENTATION SKILLS
Daniela N. Ilieva-Koleva
University of Sheffield Sofia
184

CONCEPTUAL AND MATHEMATICAL MODELS FOR MANAGING SOFTWARE PROMOTION LIFE CYCLE
Yuriy P. Ekhlakov and Dmitry N. Baraksanov
Department of Data Processing Automation, Tomsk State University of Control Systems and Radioelectronics
40 Lenina Ave., Tomsk, 634050, Russian Federation
195

TRANSFORMATIONS OF THE APPROACH TO HUMAN RESOURCES IN THE POSTMODERN SOCIETY
Jolita Vveinhardt¹, Palmira Papsiene²
¹ Lithuanian Sports University, Sporto Str. 6, Kaunas, Lithuania
² Lithuanian Sports University, Sporto Str. 6, Kaunas, Lithuania
209

NEPOTISM IN MANAGEMENT OF THE ORGANIZATION: PHENOMENON DISCRIMINATING EMPLOYEES
Jolita Vveinhardt¹
¹ Lithuanian Sports University, Sporto Str. 6, Kaunas, Lithuania
223

AN EVALUATION OF USING A COMPANY’S GOODWILL AS AN EARNINGS MANAGEMENT INSTRUMENT IN POLISH ECONOMIC PRACTICE ON THE BASIS OF CONDUCTED SURVEY RESEARCH
Andrzej Piosik, Marzena Strojek-Filus
Department of Accounting, University of Economics in Katowice, Poland
231
TOWARD EFFECTIVE MANAGEMENT OF POST PRIMARY EDUCATION IN EDO STATE: THE APPLICATION OF GHISELLI PERSONALITY INVENTORY.
John Ohiorenoya, Benson Idahosa University, Benin City
Susanna Ohiorenoya, Zenith Bank PLC, Lagos
249

AN EMPIRICAL VIEW AT THE DIFFERENCES BETWEEN ETFS AND INDEX FUNDS.
Naumenko Klym
Department of International Economic Relations,
Institute of Mathematics, Economics and Mechanics,
Odessa I.I. Mechnikov National University, Dvoryanskaya 2, Odessa, 65082, Ukraine
257

CORPORATE GOVERNANCE CODES AND FIRM FINANCIAL PERFORMANCE IN NIGERIA: A STUDY QUOTED BANKS
Joseph Ese Egininiwin
Department of Accounting, University of Port Harcourt, Rivers State, Nigeria, PMB 5323
271

LIQUIDITY DEVELOPMENTS IN ROMANIAN BANKING SYSTEM
Horațiul Lovin
The Bucharest University of Economic Studies, Mihail Moxa 5 – 7, 010961 Bucharest, Romania
289

SUPPLY RISK MANAGEMENT: MITIGATION STRATEGY
Antonio Coviello and Giovanni Di Trapani
Researchers IRAT (Institute for Service Industry Research) - CNR (National Research Council) – Italy
298

SUPPLY AND DEMAND OF COMPETENCES FOR HIGHLY QUALIFIED LABOUR IN LATGALE REGION
Daina Znotina, Svetlana Ignatjeva
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305

PROFESSIONAL HIGHER EDUCATION IN THE REGION OF LATGALE: THE VIEW OF STUDENTS, UNIVERSITY LECTURERS AND EMPLOYERS
Daina Znotina, Svetlana Ignatjeva
Daugavpils University Vienibas iela 13, Daugavpils, Latvia
325
THE BALTIC STATES COMPANIES WORKING EFFICIENCY BEFORE AND AFTER THE ECONOMIC CRISIS
Toivo Tanning, Lembo Tanning
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342

THE INFLUENCE OF PROPERTY TAXATION ON THE FINANCIAL MECHANISM OF THE ORGANIZATION
Albina N. Mayorova, Elena A. Mayorova
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364

INNOVATIVE WAY OF CHANGING TECHNOLOGICAL STRUCTURE IN RUSSIAN AGRICULTURE
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375

CONSUMER BEHAVIOUR IN EU COUNTRIES IN THE PERIOD OF ECONOMIC CHANGES
Dana Skálová, Jana Stávková, Tomáš Netopil
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381

KNOWLEDGE MANAGEMENT AS A TOOL TO REDUCE PERSONAL MARKET RISKS
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2 Slovak University of Technology in Bratislava, Faculty of Materials and Technology in Trnava
393

ECONOMIC ASPECTS OF TROLLEYBUS TRANSPORT IN EUROPE EXPERIENCES OF TROLLEY PROJECT, CENTRAL EUROPE PROGRAMME
Ernest Czermanski
Faculty of Economics, University of Gdansk, Poland
402

MODELS OF CITY MARKETING
Anikó Komáromi-Gergely,
Szent István University, Institute of Finance and Accountancy, 2100 Gödöllő, Páter K. u.1
402
INCOME SITUATION IN SELECTED EU COUNTRIES BASED ON EU SILC
Naďa Birčiaková, Veronika Antošová, Jana Stávková
Brno, Czech Republic
409

SOME QUELLING SITUATIONS IN BUSINESS
Velizar T. Pavlov
8 Studentska Str., Ruse 7017, Bulgaria
423

IDENTIFY AND PRIORITIZE THE FACTORS AFFECTING CUSTOMERS
Satisfaction of Natural Gas Using a Hybrid Algorithm, Kano and FAHP
(THE CASE OF A PROVINCE IN IRAN)
Younos Vakilalroaia, Abbass Heravi, Abolfazl Ghodrati
Semnan Branch, Islamic Azad University, Semnan, Iran
Semnan Branch, Islamic Azad University, Semnan, Iran

INVESTIGATION OF THE ROLE OF MANAGEMENT INFORMATION SYSTEM AND RADIO FREQUENTLY IDENTIFICATION (RIFD) TECHNOLOGY IN SUPPLY CHAIN MANAGEMENT (SCM) ((THE CASE IRANIAN AUTOMOTIVE INDUSTRY))
Seyed Razi Nabavi Chashmi
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MONITORING AND LAND PRICE UNDER THE CONDITIONS OF SOUTH URALS
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STUDING OF STRUCTURAL CHANGES IN NATIONAL ECONOMY
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Украина, 61002, г. Харьков, пр. Ленина 9А
TAX PLANNING METHODOLOGY IN RUSSIA

Lyudmila Parfenova, Tatyana Tyurina, Andrey Pugachev

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487