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Editorial on MEST Journal 2016-2

Zoran Čekerevac

Belgrade
July 15th, 2016

(Without Abstract)

Welcome to the eight issue of the MEST Journal, an international peer-refereed academic journal, the official journal of the non-profit organization MESTE, and the Faculty of Business and Industrial Management of the "Union – Nikola Tesla" University in Belgrade, and the SZ & Associates - Toronto. This issue is published online and in print.

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We keep the practice that articles, that have undergone peer review, and will be published in the next issues, we make available to readers in the form of preview - early reading. The focal point of the journal remained at international level, with the view on matters from a global perspective. However, due to their importance, in this issue have been published some papers relating to some specific local events.

In this issue, twenty of submitted papers were published, of which nine were classified in the group of research scientific papers, eight in the group of scientific review papers, and one article in each of the following three categories: "scientific discussion", "case study" and "professional paper". The most of the articles is multidisciplinary. However, nine papers can be predominantly classified to the field of management, five to the group of economics, and four to the area of finance. Some articles belong to groups of sociology, education, and ecology.

We follow the mission and vision of the journal, and we help authors to publish their works and present their achievements in the most convenient way. However, we point out that the editors do not censor the works that we publish, as well as the published works can contain and/or proclaim views that could differ from the views of the editorial board. We check articles on plagiarism, but we are not able to guarantee the accuracy of the data published in scientific and professional works of our authors. We believe that our authors are honorable and publish only their original works with really achieved results. For the quality of papers we publish we thank the authors and reviewers who did their job well and conscientiously.

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Zoran Čekerevac

Prof. Dr. Zoran Čekerevac
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- Management in crisis situations
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- Information system security
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- Industrial research
- Technology forecasting
- Instrumentation and analytical techniques
- Specials of direct relevance to industrial entrepreneurs
- Debates on key industrial issues
- All facets of industrial development

These are basic, but not exclusive themed areas.



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MANAGING CONSTRAINTS IN SMES FINANCING - THE CASE OF ROMANIAN TOURISM SMES

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Abstract

The question of adequate financing of SMEs represents a research topic of great importance for many sectors, including tourism. In this particular sector, tourism operators are facing both the general limitations and restrictions common for all small businesses, but also specific difficulties. This paper is aiming at investigating, by using a survey-based research among main institutional lenders in Romania, the availability of the financing institutions to finance small businesses operating in tourism. The objectives of this paper are as follows: to assess the main difficulties and specific ways of creditors' involvement in SMEs' business financing; to find out which are the main difficulties and obstacles in tourism financing, and to what extent they can be mitigated; to reveal the most important risk factors taking into consideration by banks when financing the SMEs operating in tourism. Our findings indicate that lenders are aware about the objective factors discouraging SMEs in accessing bank loans, but also that the credit supply for businesses operating in tourism is more difficult to access and less competitive compared to other ventures operating in different sectors. This limited interest of banks in SMEs' tourism businesses needs to be counterbalanced by other financing forms and suppliers, including public funds, European funds etc.

Keywords: Tourism, SMEs lending, constraint, risk, crisis

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1. INTRODUCTION

The SMEs financing represents nowadays an issue of great importance, both as research theme and practical concern, especially to identify and promote economic and social policies capable to

ensure a real contribution of SMEs sector to the economic development of each country. The tourism is an opportunity, but, at the same time, a challenge for policy makers, lenders and, not least, for small businesses operating in this sector. In addition to the specific difficulties of any business, tourism operators added, unfortunately, those related to searching and accessing the most appropriate financing, to help them to overcome difficult period and to achieve their growth ambitions.

This paper is aiming at investigating (by using a survey-based research) the availability of the financing institutions to adequately finance the SMEs' businesses in tourism. The objectives of this paper are, primarily, to assess the main difficulties and specific ways of creditors' involvement in SMEs business financing. Secondly, we are interested to find out (from a supply side perspective) which are the main difficulties in tourism financing and to what extent these difficulties can be mitigated.

The paper is organized as follows: in the next (second) part we briefly present an overview on the main problems and difficulties in SMEs financing; in the third part we focus on the constraints that tourism SMEs are facing; in the fourth and fifth parts we present the research methodology and questions, and discuss the results. Finally, we conclude and emphasize some further policy implications.

2. SMES PROBLEMS IN LENDING

The SMEs' difficult access to financing is a matter of great importance both for micro- and macro-economic environment. However, the controversies on the causes and the possible remedies are far from reaching an unanimous position. Theoretical debates and inconsistency of the policies negatively influence the practical means of action, both in the supply side (i.e. banks and other public or private funding providers) both on the funding beneficiaries (i.e. the SMEs).

Overcoming the economic crisis effects and hastening the recovery are closely linked to the strengthening and expansion of the SMEs sector, but it cannot be done in the absence of a suitable financing. The surveys of European Commission (2015) reveal that, during the last ten years, the access to finance of European SMEs has been

considered as the second (or the third, in some years) most pressing concern for SMEs' managers. These studies also state that the lenders' reaction (mainly, the banks) is weak and largely uncorrelated with the expectations of business environment and policy makers.

Most of the researchers consider that the inadequate financing of SMEs is a structural feature, often unavoidable, which have to be mitigated by public interventions as non-refundable lending programs, grants, guarantees, favorable fiscal measures (Schiffer and Weder, 2001), (Beck, Demirgüç-Kunt and V. Maksimovic, 2005), (de la Torre, Martínez Pería and Schmukler, 2010). The majority of these opinions are circumscribed to the demand side constraints theory: the lack of adequate financing for SMEs is caused by their less attractiveness for the lenders:

- a small proportion of fixed assets in total assets;
- a significant proportion of short-term loans financing fixed assets;
- large debts to commercial suppliers;
- insufficient retained profits to fund investments;
- relatively high debt-equity ratio;
- a higher failure rate.

These features are considered as a "degradation" of desirable characteristics, typically found in large firms. Accordingly, SMEs are often misinterpreted as the scale-down version of large business. They are often analyzed and financed with methods and techniques used for financing large companies (Cressy and Olofsson, 1997).

The second perspective explains the problems of inadequate funding of SMEs coming from the supply side constraints, particularly related to the way that financial institutions work (Beck, Demirgüç-Kunt, and Soledad Martinez, 2010), (OECD, 2000), (OECD, 2004), (Toivanen, Cressy, 2000), such as:

- overlapping between the state institutions and banks (public or private);
- distortion in the market mechanisms and competition;
- excessive collateral requirements, conservative methods in the assets valuation and risk weighting (RAM Consultancy Services, 2005).

- insufficient ability to understand and analyze the SMEs sector, "the absolute dollar returns are much smaller compared to large corporate loan, (...) applying the same techniques of large corporate evaluation to SME obviously results in many SME not being able to meet bank lending criteria" (RAM Consultancy Services, 2005).
- complicated, expensive and, sometimes, unnecessary lending procedures.

Contradicting, at least in part, the above mentioned theories, there is a third position which argues the financial market for SME is increasingly competitive, with prospects for profitable growth, far from being saturated or a "niche" banking businesses. Thus, all banks (large and small, foreign or domestic, specialized or universal) see SMEs as a strategic sector, where they plan to expand their operations in a sustainable manner (de la Torre, Martínez Pería, Schmukler, 2000). Good lending relationships, based on trust, "improve SMEs' access to finance more than the establishment of longer or more concentrated relationships" (Hernandez-Canovas & Martinez-Solano, 2010, p. 465), and help companies to obtain more loans and to reduce costs, mitigating the effects of the crisis (Beck, Degryse, De Haas, & van Horen, 2014, p. 32).

3. PARTICULARITIES FOR TOURISM SMES

The SMEs operating in the tourism sector are not an exception from all stated above; moreover, there are scholars and experts such as Council of Tourism Associations in British Columbia (COTA) and Taylor Capital Corporation (2006) stating that tourism industry have a relatively higher risk compared with other industries. This perception is fueled by the degree of risk presented by two key sectors of the tourism: accommodation and restaurants. Lenders and investors are cautious when providing funds to SMEs operating in tourism, due to several reasons.

First, they consider the losses from loans. After the failure of a tourism business, the lender could register considerable losses, compared to other industries. This is explained by the nature of touristic activities: SMEs in tourism hold relatively few tangible assets and, mainly, volatile working capital (as seasonal receivable and inventories),

quite uninteresting to be pledged as collateral by banks. The traditional lenders tend to grant credits covered by guarantees, as real estate or equipment.

Second, the lenders are very cautious about the seasonality of cash-flow. In tourism there are usually short operating seasons, when it has to be achieved almost entire annual profit, and there is the less room for management errors.

Third, the lenders' concern about the external events (e.g. forest fires, global diseases, terrorism and unpredictable exchange rate fluctuations) that are outside of the tourism industry's control, and could generate a negative impact on all participants.

Fourth, the lenders take into account the specific behavior of unexperienced investors in a lifestyle-type industry. i.e. the syndrome "I Have a Dream". The strategy "Build it, and the tourists will come!" remains a more common approach in business planning, combined with poor experienced managers (or shareholders). Superficial planning and emotional considerations used as arguments preclude an objective analysis of the situation and the necessary actions.

Finally, in the tourism industry there are problems of evaluation, which are more acute than in other sectors. Bankers deplore that many operators in the tourism sector do not realize the essential link between the "real" value of their business and the cash-flow generated by that. Many significant investments (buildings, furniture and equipment, software) are quite specialized, difficult to sell, situated in picturesque, but peripheral areas. Therefore, the lenders advance very conservative values for these assets, and, consequently, low financing facilities. In case of foreclosures, the liquidation value for the equipment of restaurants and accommodation units are often below 25% of the initial value (COTA, 2006). This is due to the ageing (attrition rate) but, especially, to the obsolescence, to the high rate of change in tastes in the tourism industry.

The fact that losses from loans (following the bankruptcy of the tourism ventures) are, typically, higher than in other areas, will affect all participants, including those with consolidated businesses, experimented, with good future prospects. It is unlikely that creditors will

significantly change their policies regarding tourism sector in the next future. Therefore, the tourism businesses will be competing not only for the market share but also for relatively reduced funds allocated by lenders for this industry.

4. RESEARCH METODOLOGY. DATASET

The present research is part of a more complex research project investigating the relationship between SMEs and banks, specific touristic financing issues (e.g. tourism business risks, particularities, post crisis realities), the most adequate type of banks for SMEs in tourism etc. This paper develops a series of themes from a previous research, with similar objectives, developed between 2010 and 2015, and presented in several previous international conferences and journal articles (Badulescu & Simut, 2012) (Badulescu, Simut, & Badulescu, 2014), (Badulescu, Giurgiu, Istudor, & Badulescu, 2015), (Badulescu & Simut, 2015). In this case, in order to investigate the nature the credit demand and supply, creditors' involvement and availability in financing ventures operating in tourism, we developed a survey-based research among main Romanian institutional lenders (especially banks).

The questionnaire was administered during February – April 2015 and it contained 18 questions, divided into three main themes: the importance of relationship banking; supply and demand for funding; and tourism financing issues. The majority of the questions had multiple-scale responses, two were open questions, and, finally, two questions concerned information about the respondents.

The questionnaires were sent to 135 bank representatives from different banks in Romania: bank managers or SMEs risk managers and relationship managers. We targeted staff holding managerial positions with specific training and job responsibilities, working directly or intermediately with loan requests and applications from SMEs customers. Consequently, they were supposed to be most suitable and reliable to provide relevant answers. By this selection we intended also to avoid common or unrelated opinions coming from other bank employees. More than two third of the respondents (i.e. 70%) were employed in bank units located in North-Western Region of

Romania, and the rest (i.e. 30%) in Centre Region and Western Region of Romania. As a result of the survey, the primary dataset consisted of 67 responses from managers working in 20 banks, out of the total of 40 banks existing in Romania at the survey's time (NBR, 2014). After removing the errors, 64 questionnaires were taken in analysis.

Due to the fact that a large majority of the valid responses (i.e. 85%) were collected from only one Romanian region (the North-West Region) we checked the representativeness of the responses. We haven't found any special features, different economic laws or regulations for this region, or special practices coming from the banks related to SMEs. According to the reports of the National Bank of Romania (NBR), the North-West Region of Romania displays a regular position within the country for main bank lending indicators, e.g.: territorial density of bank units, number of inhabitants per bank branch, number of current accounts, volume of loans granted to SMEs etc. (NBR, 2015).

In achieving the purpose of the present paper (i.e. investigating issues related to financing SMEs operating in tourism sector) we focused on the following five research questions (Q1-Q5):

Q1: On a scale from 1 (strongly disagree) to 5 (strongly agree), please evaluate the following statement: "The supply of funding (public or private) for SMEs in tourism is sufficient and adequate";

Q2: On a scale from 1 (strongly disagree) to 5 (strongly agree), please express your opinion regarding the following statements: "SMEs are deterred from accessing bank loans due to ...

- requirements for guarantees exceeding the company's or shareholders' possibilities;
- procedures and required documents: excessive, expensive and long-lasting;
- lengthy approval processes, even for relatively small loan amounts;
- expectations regarding the rejection of loan application".

Q3: Do banks consider financing tourism ventures as relatively riskier than financing businesses operating in different sectors?

Q4: Which are the most important risk factors in financing tourism SMEs?

- the seasonality of activity (cash-flow);
- external events (global diseases, terrorism, currency fluctuations, climate change, fashion);
- inexperienced management / shareholders;
- difficulties in assessing the proposed collateral;
- high frequency of loss from current activity;
- other (suggested by respondents).

Q5: Which are your expectations regarding actions that should be undertaken by tourism companies to streamline operations and mitigate the adverse impact of the crisis?

- costs control and liquidity provision;
- compliance with the business plan and marketing strategy;
- obtaining a favourable market share / competitive positioning;
- discounts and promotional policies.

5. RESULTS AND DISCUSSIONS

Regarding the first analysed question, Q1: On a scale from 1 (strongly disagree) to 5 (strongly agree), please evaluate the following statement: "The supply of funding (public or private) for SMEs in tourism is sufficient and adequate", the responses are presented in Figure 1 (below).

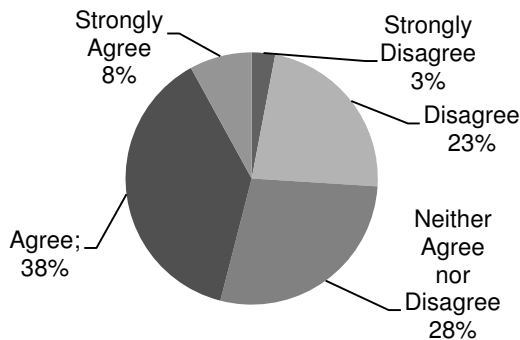


Fig. 1 The distribution of response to the research question (Q1): "The supply of funding (public or private) for SMEs in tourism is sufficient and structurally adequate".

Regarding the bankers' position to the lending offers to SMEs, it is noted that the group of favourable and very favourable responses reach almost half of the preferences (i.e. 38% agree, plus 8% strongly agree). However, this percentage is quite low, given that these opinions come exactly from the most important funding

providers for SMEs. What would be the answer from the beneficiaries (from demand side) if just the suppliers aren't very enthusiastic about that? It is possible that this opinion, circumscribed to SMEs businesses in tourism, be more reserved than for other industries.

Table 1. Responses at Q2: "Please express your opinion on a scale from 1 (strongly disagree) to 5 (strongly agree) to the following statements: "SMEs are deterred from accessing bank loans because ..."

	1	2	3	4	5
Requirements for guarantees exceeding the company or shareholders possibilities	2%	22%	11%	52%	13%
Procedures and required documents: excessive, expensive and long-lasting	9%	19%	11%	44%	17%
Lengthy approval processes, even for relatively small loan amounts	9%	25%	14%	33%	19%
Expectations regarding the rejection of loan application	25%	25%	38%	9%	3%

In this question (Q2), bankers agree that SMEs are obviously discouraged in credit accessing by the requirements for guarantees, which are exceeding the company's or shareholders' possibilities (52% agree and 13% strongly agree) or by the excessive, expensive and long-lasting procedures and the required documents (44% agree and 17% strongly agree). Next, to a close score, is the lengthy approval processes (even for relatively small loan amounts), with 33% agree and 19% strongly agree. In other words, the bankers admit that some of the SMEs' financing difficulties come also from the requirements and banking standards, suitable rather to the large companies. These large entities could offer adequate guaranties, and the time and money expenses, or bureaucracy appear to them as

reasonable, relative to the importance and size of the requested loan.

On the other hand, respondents are quite firm considering the expectations regarding that the rejection of loan applications is not a valid reason for the reluctance of SMEs to institutional lenders. However, the European Commission surveys (2015) mentioned above, shows us quite clearly that expectations of the Romanian SMEs' managers for a possible rejection of loan application are 7-15% of the reasons of un-accessing of a bank loan, one of the highest in the EU.

Regarding how banks perceive the risks associated with tourism businesses (Q3: Do banks consider financing tourism ventures as relatively riskier than financing businesses operating in different sectors?), the results indicate 7 cases of banks' representatives who 'strongly agree' with this statement, 27 'agree', 17 were neutral, 10 'disagree', and 3 'strongly disagree'.

When calculating the weighted average the responses (as weighted average of responses ranging from 1 - strongly disagreement, to 5 - strongly agreement), the result is of 3.39 points, placing the tourism businesses as a slightly riskier business compared with other sectors.

Table 2. Responses at Q3: "Do banks consider financing tourism ventures as relatively riskier than financing businesses operating in different sectors?"

	Number of bank responses	%
Strongly disagree	3	5%
Disagree	10	20%
Neither agree nor disagree	17	28%
Agree	27	41%
Strongly agree	7	6%

However, the perceived risk for the entire tourism sector reveals that certain sub-sectors are riskier, especially due to the high competition and low margins (in restaurants) or considerable investment in infrastructure or real estate (accommodation). Other tourism businesses tend to be less prone to risk and are less dependent on

discretionary demand fluctuations. They face less competition due to development of niche sectors or of unique products associated with specific natural features, or due to the considerable entry barriers. On the other hand, most of the bank respondents indicate (in previous responses) that they co-financed European projects in tourism, which involved reasonable amounts of money, a lower risk of default, a comfortable perception of reimbursement. Perhaps without this "safety net" (the repayments coming from European funds) a lot of touristic projects of SMEs would not be realized, because of degree risk, applied by the banks representatives.

Another relevant issue concerns the most important risk factors taking into consideration in the financing of SMEs operating in tourism (Q4). The results are synthesized in Table 3.

As revealed, the low experience of managers and the high seasonality (implicitly, the seasonality of cash-flow) appears to be the risk factors with the highest score as importance (53% and 41% for inexperience, respectively, 43% and 51% for seasonality).

Table 3. Responses at Q4: "Which are the most important risk factors in financing tourism SMEs?"

	Not important	Some-what important	Very important
The seasonality of activity (cash-flow)	6%	53%	41%
External events (global diseases, terrorism, currency fluctuations, climate, fashion)	32%	45%	23%
Inexperienced management / shareholders	6%	43%	51%
Difficulties in assessing the proposed collateral	16%	54%	30%
High frequency of loss from current activity	14%	52%	34%

On the contrary, bankers do not perceive very serious threats in the impact of external events (e.g. global diseases, terrorism, currency fluctuations, climate, fashion), difficult to control, based on the premise that most of these events affect tourism firms in a reduced manner. It is quite surprisingly the (relative) neutral score attributed to collateral problems, as significant differences between the market value and the replacement value, specialized assets (i.e. 54% of responses considers it as somewhat Important and only 30% as very important), which can be explained by the quite frequent involvement in co-financing European projects, where associated risks are limited and the specific collateral requirements are diminished. In another perspective (i.e. the SMEs managers), European Commission reports mention the lack of collateral as a common explanation in not-accessing a bank loan (15% the EU average, 24% in the case of Romania and a maximum of 28% in the case of Hungary), "increases in (...) collateral requirements were reported more often by enterprises than a decline in these (...) requirements" (European Commission, 2015, p.8).

Table 4. Responses at Q5: "Which actions should be undertaken by SMEs operating in tourism to streamline operations and mitigate the adverse impact of the crisis?"

	Not important	Somewhat important	Very important
Cost control and liquidity provision	0%	31%	69%
Compliance with the business plan and marketing strategy	9%	64%	27%
Obtaining a favourable market share / competitive positioning	20%	46%	34%
Discounts and promotional policies	45%	38%	17%

The high frequency of losses from current activity and, thus, a higher number of bad loans, gets a (somewhat) more balanced perspective, quite difficult to explain, probably due to different

understanding of respondents and a relatively low experience with this kind of credit "incidents".

On this question, the respondents added other risks, such as: high competition, low flexibility, changing in tax laws, location, lack of transparency of the income earned. Although they have low scores, they are useful in building a more complete picture of the risk factors associated with the SMEs operating in tourism.

The respondents, coming from the financial sector, highly value the cost control and liquidity provision (69% as very important) and a good control of the market (favourable market share / competitive positioning). The strict compliance with the initial business plan and marketing strategy seems to be important, but not essential. This neutral perspective is explained, perhaps, by the fact that the business plan should be flexible, related to the concrete realities and opportunities etc.

Quite surprisingly, however justified, is that the banks do not insist necessarily on discounts and promotions policy, in order to ensure a higher rate of occupancy and a favourable image on the market (45% not important, 38% somewhat important). With a good knowledge of their customers' financial reporting, the bankers have noted that the margins are already small; simply there is no room for future discounts, and the chance of survival and business strengthening stays in the quality and diversification of touristic services, in cost controlling, but not in the price cutting as a "miraculous" marketing solution.

6. CONCLUSIONS

The importance of SMEs financing in today economies is undeniable, underlined both by researchers and practitioners. In this context, small businesses operating in tourism represent an opportunity and a challenge for policy makers and lenders. Apparently, the supply of finance for the SMEs in tourism is, according to the main lenders' opinion, sufficient and appropriate in structure. However, we have solid reasons to question the optimism of this assertion. First, this opinion has gathered a little over half of the creditors' responses. Secondly, a significant part of the researches, reports and surveys in EU (and not only) reveal a significant degree of structural mismatch between the supply and demand for

financing. Finally, further results of our research indicate that lenders are aware that there are some objective reasons which turn away or discourage SMEs in accessing bank loans.

Among these, we found the requirements for guarantees exceeding the company's or shareholders' possibilities, the excessive, the expensive and long-lasting procedures and required documents, or the lengthy approval processes.

Our study confirmed that a certain caution of lenders in sustaining SMEs operating in tourism cannot be attributed only to the relative small size of the business, seasonality of activity, poor collateral or financial performance, but also to the quality of management and (in)ability to transform the existing opportunities into viable plans, to protect against unexpected changes in daily business.

Consistent with other researches, we found that the funding supply for touristic businesses is weaker and less competitive compared to other

businesses. The SMEs operating in tourism obtain their external financing amount by two main sources, i.e. the banks and the governmental programs. Although considered as slightly riskier than other sectors, small businesses operating in tourism could be a good opportunity for banks, under certain conditions. Therefore, SMEs should make rationale and intelligent investments, should diversify their income-generating activities and increase the experience and responsibility of management. Tourism businesses still need the right and adequate support especially for SMEs; besides large-scale projects in tourism infrastructure development, there is a need for appropriate and coordinated funding policy for small businesses. The cautious interest of banks in SMEs tourism businesses has to be improved through better complementarities with public assistance programs (i.e. EU funds for tourism). It is a way to mitigate the risk in this sector but also to diversify the funding supply for this important economic sector.

WORKS CITED

- Badulescu, D., & Simut, R. (2012). The Bank Lending to SMEs in Romania during Crisis Times. An Empirical Approach on the Relation Trust – Length – Loyalty. *Conference Proceedings of the 7th International Conference on Currency, Banking and International Finance. How Does the Central and Eastern Europe Cope up with the Global Financial Crisis? Bratislava, September 27-28.*
- Badulescu, D., & Simut, R. (2015). Bank's Availability versus SMEs' Expectancies in Business Financing. An Analysis on Credit Renewal. *Proceedings of the 9th International Days of Statistics and Economics, Prague, September 10-12, 79-88.*
- Badulescu, D., Giurgiu, A., Istudor, N., & Badulescu, A. (2015). Rural tourism development and financing in Romania: a supply-side analysis. *Agricultural economics (Zemědělská ekonomika)*, 6 (2), 72–80.
- Badulescu, D., Simut, R., & Badulescu, A. (2014). Looking for Better Financing: A Quantitative Approach on Collateral Importance in SMEs Relationship Lending. *Proceedings of the 8th International Days of Statistics and Economics, Prague, September 11-13, 43-52.*
- Beck, T., Degryse, H., De Haas, R., & van Horen, N. (2014, July). When arm's length is too far: relationship banking over the business cycle. *European Bank for Reconstruction and Development Working Paper No. 169*, p. 32.
- Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2005). Financial and Legal Constraint to Firm Growth: Does Firm Size Matter? *Journal of Finance*, 60, 137-177.
- Beck, T., Demirgüç-Kunt, A., & Soledad Martinez Peria, M. (2010). *Foreign Banks and Small and Medium Enterprises: Are they really estranged?* Retrieved May 02, 2012, from <http://www.voxeu.org/index.php?q=node/4828>

- Council of Tourism Associations in British Columbia (COTA) (2006). *Financing Tourism Operations in British Columbia*. Canada: COTA & Taylor Capital Corporation.
- Cressy, R., & Olofsson, C. (1997). European SME Financing: An Overview. *Small Business Economics*, 9, 87–96.
- de la Torre, A., Martínez Pería, M., & Schmukler, S. (2010). Bank involvement with SMEs: Beyond relationship lending. *Journal of Banking and Finance*, 34, 2280–2293.
- European Commission (2015) *Survey on the access to finance of enterprises (SAFE. Analytical Report 2015)*. Brussels: EC: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs.
- Hernandez-Canovas, G., & Martinez-Solano, P. (2010). Relationship Lending and SME Financing in the Continental European Bank-based System. *Small Business Economics* 36, 465-482.
- National Bank of Romania (2014). *Annual Report 2014*
- National Bank of Romania (2015). *Financial stability report 2015*.
- OECD (2000). *Financing newly emerging private enterprise in transition economies*. OECD Publication Services.
- OECD (2004). Promoting entrepreneurship and innovative SMEs in a global economy: Towards a more responsible and inclusive globalization.
- RAM Consultancy Services (2005). *SMEe Access to Financing: Addressing the Supply Side of SME Financing, REPSF Project No. 04/003, pp. 1-28,*. Retrieved from <http://www.aseansec.org/aadcp/repsf/docs/04-003-FinalMainReport.pdf>.
- Schiffer, M., & Werder, B. (2001). *Firm size and the business environment: Worldwide survey results*. Washington, DC: Discussion Paper Series. International Finance Corporation.
- Toivanen, O., & Cressy, R. (2000). *Lazy Entrepreneurs or Dominant Banks? An Empirical Analysis of the Market for SME Loans in the UK*. Warwick Business School SME Centre Working Paper.

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ORGANISATION AND FINANCING OF FOOTBALL CLUBS IN CROATIA

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Abstract

The football has been gradually transformed from a sport game and a popular social phenomenon into a market activity attracting significant foreign investment all over the world. Clubs are increasingly investing in the transfer of players which is why this sector grips attention in the economy and fiscal systems. There is a set of dilemmas relating to the legal status of football clubs in Croatia, their accounting policies and tax liabilities, but also the subsidies they receive from the public sector. It is reasonable to wonder to what extent football remained in the area of public - sport and financial - interest and to what extent is it subject to private interests, driven by profit motives. To the extent they are dominated by private interests, football clubs should be deprived of preferential tax treatment, significant public subsidies and other benefits enjoyed at the burden of the public sector.

Keywords: football, financing, organisation, performance, indicator

1 INTRODUCTION

The main objective of this paper is to perform the financial analysis of business activities of football clubs in Croatia. The analysis includes clubs from first and second Croatian football league (cro.

Hrvatska nogometna liga - HNL), according to the current schedule for the season 2015/2016. HNL I includes 10 and HNL II additional 12 clubs.

We analyse the structure of revenues and expenditures, as well as assets, liabilities and capital of football clubs. Finally, through the calculation of selected financial ratios we assess their relative success in business operations, but also point to the problems associated with their liquidity and indebtedness. It should be noted that

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one of the second league clubs (Dinamo II) is actually the reserve team of the first league club Dinamo. For this reason the financial analysis includes 21 rather than 22 football clubs.

Finally, based on the calculation of selected financial indicators we assess their relative business success and point out to the potential problems relating to their liquidity and indebtedness. Based on their financial results and the incurrence of liabilities we judge whether football in Croatia grew from financially less important social activity (with obvious public benefits) to a serious economic branch with prevalent private interests. The financial analysis should reveal the stage of transition of Croatian football clubs to professional sports. Results of the financial analysis should indicate whether Croatia needs a better regulation of the financial operations of the football sector and the establishment of a stable legal and institutional infrastructure for the long-term sustainability.

2 LEGAL STATUS, ACCOUNTING OF FOOTBALL CLUBS AND PLAYERS

Today, sporting success is not the only a way to measure the football club's performance (Van Uden, 2005), nor are fans the only interest group with expectations related to the club's performance (Mason, 1999). Therefore, these organisations have to design new strategies and objectives in order to adapt to a sector that has been challenged by professionalization and commercialisation; processes that have affected sport in general, but especially the most popular sport branches and those with the greatest media coverage. These processes and their consequences have lead sports to be considered as a business (Chadwick and Beech, 2004), an industry (Foster, Greyser et al, 2005), or an economic sector, capable of generating value for all actors partaking in it (Gomez, Marti, Opazo, 2008).

In North America it is commonplace, especially among economists, to think of the owners of professional sports teams as profit maximisers. In Europe, however, this assumption has been treated somewhat sceptically. Sloane (1971) argued that a plausible characterisation of the owners of football clubs is as "utility maximisers" subject to a budget constraint, where utility is

largely associated with success on the pitch. Reasons for this view include the perceived lack of profitability of football clubs and the opinions expressed by club officials. In some countries football clubs are organised as sporting associations which have no shareholders, but in England all professional clubs are limited companies, and most have been so for around 100 years.

Financial reporting of clubs in Croatia is not uniform because some clubs use non-profit accounting, and others for-profit accounting. For this reason were certain items from financial statements of clubs set up as non-profit organizations modified to reflect the structure of financial statements of public limited companies. Although this process can not be completely accurate in all parts of the report, it is necessary for making the comparative analysis possible.

In countries where football is popular, the economic weight of professional football increases from season to season and today plays an incredible economic role. Besides increasing the total revenues of professional football clubs, an extraordinary rise in investments can also be observed. Another unique feature is, therefore, that the football industry can only accumulate reserves to a limited extent. The value of assets invested into the sector is constantly on the rise and the improvement of financial/investment opportunities is also a worldwide tendency. The growth in value of player portfolio and squads has now reached an extraordinary (according to certain opinions exaggerated) extent. This fact is supported by the remarkably high transfer fees. In recent years, the increase in equity capital could also be observed, which is very positive since the equity capital is the engine of any enterprise. Unfortunately, this increase is prominent only in the case of certain larger football clubs, while in general the level of indebtedness in professional football is on the rise in many countries. This is the reason why the reduction of debt is still considered a priority in the industry both in the long and short term (Nagy, 2012).

Mourão (2005) provides a deeper analysis of the finances of football; the costs of football teams depend on the divisions in which the teams play and include the costs of salaries, maintenance of infrastructure, and movements of personnel and investments. Football teams' funding may come

from receipts, transfers made by the state, sponsorships, members' contributions, sell sheets, merchandising practices, and bank debt (Mourão, 2005).

Football clubs' balance sheets can be quite interesting since players are usually registered on the balance sheet as assets. The records of right to registration of players in the financial statements is supported by the International Accounting Standard (IAS) 38, which prescribes the recognition and registration of intangible assets that are not specifically dealt with in other international accounting standards. According to IAS 38, an intangible asset is non-monetary asset without physical substance, which can be identifiable. In accounting terms, an asset is a resource - controlled by an entity in whose reports it is registered - which is expected to generate future economic benefits. An asset is identifiable when it is separable, and derives from a contract or other legal rights. Finally, IAS 38 prescribes that intangible assets should be recognized only if the cost of acquiring an asset can be determined reliably.

Morrow (1997) argues justification of accounting records of right to registration of players as intangible assets on the basis of these criteria. Players who have entered into an agreement with certain clubs are associated with those clubs for a certain period of time in which they are expected to generate economic benefits for the clubs. In addition, the fact that the right emerges from the contract, as well as the right to sell players (separation of rights to players from other assets of the club), confirm the identifiability of the asset. Since players are usually bought for a fee (unlike other employees), the cost of acquiring players can be determined reliably and therefore recorded in the financial statements, in line with the IAS 38. Of course, given the duration of the contract, this intangible asset is also depreciating in the financial statements and amortizing within the stipulated period, mostly without residual value.

In order to prevent swapping between clubs during the season, the English Football Association already in 1885 prescribed the registration of all players (Morrow, 1997). The transfer market for players was developed as a result of these provisions. With the registration of players the club reserves the right to hold players for the duration of the contract. If another club wants to 'buy' a

player for the duration of the contract, it has to pay a fee for the transfer of that right to the home club.

It should be noted that - although it is not quite logical - the players who were not purchased but have grown up in the club can not be recorded on the balance sheet because they do not meet all the criteria laid down in the IAS 38. In fact, considering that these players are not purchased for a fee, the acquisition cost for them can not be determined (UEFA 2012).

3 CROATIAN FOOTBALL LEAGUE ORGANISATIONS & FINANCING

In Croatia there are currently seven football leagues. These are the first (I), second (II) and third (III) Croatian football league (cro. Hrvatska nogometna liga – HNL), and first, second, third and fourth county football league (cro. Županijska nogometna liga – ŽNL). The analysis encompasses clubs from the first and second HNL (according to the current schedule for season 2015/2016). HNL I includes 10, and HNL II 12 clubs.

Football clubs in Croatia operate as non-profit organizations or as public limited companies. In HNL I, both legal forms are equally represented. Clubs from HNL II are generally established as non-profit organizations.

Clubs that strive for the development of sports infrastructure, young athletes and the local community, creating positive external effects (externalities) through promotion of sports values in the society should be organized as non-profit organizations. It is logical that such - mostly amateur - clubs are largely financed by public funds. However, professional clubs focused on generating income (which is not necessarily used for the development of their own players but acquisition of better – professional athletes), should not enjoy the status of non-profit organizations.

4 STRUCTURE OF HNL

The average number of players in the first league clubs is 32, the average age of players being 23.5 years, while in the second league teams on average consist of 25 players, with average age of 24 years (Table 1).

Table 1 Structure of HNL I and HNL II teams in 2015

No	Football club	Total players	Average age	Foreign players	Total market value of players (mil. HRK)	Average market value of players (mil. HRK)
HNL I						
1	Dinamo	41	23.8	18	415.12	10.16
2	Rijeka	40	25.1	14	265.22	6.63
3	Hajduk	35	22.9	9	181.21	5.18
4	Split	32	24.9	4	94.78	2.96
5	Lokomotiva	32	22.8	3	70.89	2.21
6	Slaven Belupo	31	24.7	5	58.76	1.90
7	Istra 1961	30	24.6	11	54.97	1.83
8	Zagreb	24	22.8	4	54.21	2.26
9	Osijek	31	24.4	5	45.49	1.47
10	Inter Zaprešić	27	23.3	7	26.01	0.96
	TOTAL HNL I:	319	23.5	78	1,257.49	3.94
HNL II						
1	Zadar	26	27.1	4	38.67	1.49
2	Hrvatski dragovoljac	27	24.4	5	22.22	0.82
3	Gorica	27	25.7	1	20.70	0.77
4	Šibenik	27	24.9	1	12.89	0.48
5	Dugopolje	32	23.9	3	10.08	0.31
6	Rudeš	29	24.3	2	9.86	0.34
7	Lučko	30	22.3	3	9.86	0.33
8	Sesvete	21	25.0	2	9.33	0.44
9	Cibalia	19	23.3	4	7.96	0.42
10	Imotski	23	26.3	1	6.26	0.27
11	Segesta	28	24.9	1	4.93	0.17
12	Dinamo II	11	19.7	1	1.52	0.14
	TOTAL HNL II:	300	24.0	28	154.14	0.51
	TOTAL HNL I & II:	619	23.8	106	1,411.64	2.28

Note: The value of players is converted to HRK according to the according to the CNB middle exchange rate as of July 1, 2015 of 7.582113 HRK for 1 euro
Source: www.transfermarkt.co.uk

Table 2 Clubs with highest amount of profit generated through the transfer of players from season 1995/96 to 2015/16 (in million HRK)

No	Football clubs	Number of buy transactions	Expenditure	Number of sell transactions	Revenue	Profit
1	Dinamo	449	407.84	457	1,423.69	1,015.93
2	Hajduk	467	98.87	508	571.01	472.14
3	Rijeka	325	40.49	318	157.63	117.14
4	Zagreb	219	3.68	236	117.75	114.11
5	Osijek	236	0.53	262	104.03	103.50
6	Split	158	6.26	143	81.13	74.91
7	Lokomotiva	229	6.44	207	60.13	53.68
8	Inter Zaprešić	297	1.02	295	58.46	57.47
9	Slaven Belupo	211	0.49	212	56.11	55.58
10	Varaždin	194	0.03	254	46.40	46.40

Note: The value of players is converted to HRK according to the according to the CNB middle exchange rate as of July 1, 2015 of 7.582113 HRK for 1 euro
Source: www.transfermarkt.co.uk

The average value of players in HNL I is about HRK 4m, whereby players of Dinamo Zagreb are the most expensive, whereas those of Inter Zaprešić are the cheapest. The average value of the second league players is about HRK 0.5m. The total market value of HNL II clubs is, therefore, only slightly higher than HRK 154m and those of HNL I nearly HRK 1.3bn. From a total of 319

players in HNL I, there are 78 foreign players, and in HNL II only 28 of a total of 300 players are foreign. This is logical since the clubs from the first league realize the most buys and sells of players (table 2).

From season 1995/96 to 2015/16, ten clubs with the highest profit from the transfer of players have

completed from a total of 448 (Varaždin) to 906 (Dinamo), transactions (table 2). Earnings from the transfer of players for Dinamo in the past twenty years reached over HRK 1bn.

The top ten clubs list with the highest profit from transfers is mainly composed of teams from the first league, with the exception of Istra 1961, which is surpassed by Varaždin – the club from the third league. It is therefore likely that these clubs are financially much more successful than the second league clubs. Financial analysis will reveal differences in operations between clubs from the first and the second league.

5 REVENUE AND EXPENDITURE OF CROATIAN FOOTBALL LEAGUE

Total revenues of the Croatian first league clubs in 2014 were ten times higher than those of second league clubs (Table 3). Dinamo generated the highest amount of revenue, while second-placed Hajduk achieved almost half of that amount. Expenditures of observed clubs were generally significantly higher than revenues. Accordingly, HNL I clubs achieved a cumulative loss of nearly HRK 122m, and HNL II clubs about HRK 4m. In HNL I, only Zagreb, Lokomotiva and Istra 1961 achieved the positive financial result.

Table 3 Operating results of football clubs in 2014 (in thousands of HRK)

No	Football club	Type	Revenue	Expenditure	Profit/loss
HNL I					
1	Dinamo	npo	120,925	211,373	-90,448
2	Zagreb (2013)	npo	16,830	14,438	2,391
3	Lokomotiva	npo	33,680	33,044	636
4	Slaven Belupo	npo	14,881	16,208	-1,326
5	Hajduk	plc	69,385	75,329	-5,944
6	Rijeka	plc	67,431	81,799	-14,368
7	Split	plc	30,839	36,920	-6,081
8	Osijek	plc	9,439	14,002	-4,563
9	Istra 1961	plc	17,390	17,353	37
10	Inter Zaprešić	npo	6,513	8,351	-1,838
TOTAL HNL I:			387,313	508,817	-121,504
HNL II:					
1	Cibalia	plc	5,568	10,285	-4,717
2	Zadar	plc	7,492	9,180	-1,688
3	Dugopolje	npo	2,876	2,795	82
4	Gorica	npo	3,614	3,609	6
5	Hrvatski dragovoljac	npo	6,402	4,501	1,902
6	Imotski	npo	1,147	1,332	-185
7	Lučko	npo	1,554	1,698	-144
8	Rudeš	npo	2,376	2,083	293
9	Segesta	npo	1,142	1,440	-298
10	Sesvete	npo	1,945	1,320	625
11	Šibenik	plc	2,995	2,721	274
TOTAL HNL II:			37,111	40,962	-3,851
TOTAL HNL I & II:			424,424	549,780	-125,355

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

The largest loss (over HRK 90m) was made by Dinamo, which generates almost one third of total revenues of all football clubs from HNL I and HNL II. Given the dominance of Dinamo compared to other clubs observed, the analysis is carried out with special reference to Dinamo's business operations.

Operating revenues are predominantly represented in all clubs (Table 4). Dinamo Zagreb, Lokomotiva and Slaven Belupo have relatively high other revenues - mainly from the sale of fixed assets and other miscellaneous revenues. Financial statements are not entirely clear on items included in other revenues, which are high – making the financial reporting in football clubs less transparent.

Table 4 Structure of revenues of football clubs in 2014 (in HRK thousands)

No	Football club	Type	Total	Operating	Financial	Other
HNL I						
1	Dinamo	npo	120,925	57,808	597	62,519
2	Zagreb (2013)	npo	16,830	7,655	73	9,102
3	Lokomotiva	npo	33,680	5,208	52	28,420
4	Slaven Belupo	npo	14,881	7,953	138	6,791
5	Hajduk	plc	69,385	62,475	1,696	5,214
6	Rijeka	plc	67,431	67,251	180	0
7	Split	plc	30,839	30,511	328	0
8	Osijek	plc	9,439	9,439	0	0
9	Istra 1961	plc	17,390	17,390	0	0
10	Inter Zaprešić	npo	6,513	6,513	0	0
TOTAL HNL I			387,313	272,204	3,063	112,046
HNL II						
1	Cibalia	plc	5,568	5,565	4	0
2	Zadar	plc	7,492	7,491	1	0
3	Dugopolje	npo	2,876	2,829	0	47
4	Gorica	npo	3,614	3,527	0	87
5	Hrvatski dragovoljac	npo	6,402	4,979	0	1,424
6	Imotski	npo	1,147	1,092	0	55
7	Lučko	npo	1,554	1,554	0	0
8	Rudeš	npo	2,376	2,376	0	0
9	Segesta	npo	1,142	1,084	0	58
10	Sesvete	npo	1,945	1,945	0	0
11	Šibenik	plc	2,995	2,995	0	0
TOTAL HNL II:			37,111	35,436	4	1,671
TOTAL HNL I & II:			424,424	307,640	3,067	113,717

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

Table 5 Structure of expenditure of football clubs in 2014 (in HRK thousands)

No	Football club	Type	Total (1+2+3)	Operating (1)	Financial (2)	Other (3)
HNL I						
1	Dinamo	npo	211,373	190,097	7,738	13,538
2	Zagreb (2013.)	npo	14,438	12,696	1,055	688
3	Lokomotiva	npo	33,044	30,527	174	2,343
4	Slaven Belupo	npo	16,208	16,050	155	3
5	Hajduk	plc	75,329	70,127	3,200	2,002
6	Rijeka	plc	81,799	81,463	336	0
7	Split	plc	36,920	35,614	1,306	0
8	Osijek	plc	14,002	13,949	53	0
9	Istra 1961	plc	17,353	16,673	680	0
10	Inter Zaprešić	npo	8,351	8,273	78	0
TOTAL HNL I:			508,817	475,468	14,775	18,574
HNL II						
1	Cibalia	plc	10,285	8,781	1,504	0
2	Zadar	plc	9,180	3,292	2,036	3,853
3	Dugopolje	npo	2,795	2,689	21	85
4	Gorica	npo	3,609	2,754	19	835
5	Hrvatski dragovoljac	npo	4,501	4,217	21	262
6	Imotski	npo	1,332	1,282	32	18
7	Lučko	npo	1,698	1,620	78	0
8	Rudeš	npo	2,083	1,646	52	385
9	Segesta	npo	1,440	1,422	1	17
10	Sesvete	npo	1,320	1,311	8	0
11	Šibenik	plc	2,721	2,390	332	0
TOTAL HNL II:			40,962	31,403	4,104	5,455
TOTAL I & II:			549,780	506,872	18,879	24,029

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

The football clubs' expenditures structure is dominated by the operating expenditures (for employees, material expenditures, amortization and depreciation and donations). From a total of HRK 550m of first and second league football clubs' expenditures in 2014, Dinamo achieved almost half (Table 5).

The success of clubs in achieving financial results can be estimated by comparing their financial indicators – turnover ratios, indicators of effectiveness and profitability ratios (Table 6).

Total assets turnover ratio is the ratio of total revenue to total assets, which shows how many monetary units of revenues is generated by each monetary unit of assets. The higher the ratio the club is considered to be more successful in the use of available assets. The average total assets turnover ratio in HNL I is 0.53, and in HNL II 0.88. This means that HNL II clubs are much more successful in achieving the financial results than HNL I clubs. This is confirmed by other indicators as well.

Indicator of effectiveness of overall operations is calculated as the ratio of total revenues and total expenditures. It is – therefore – preferable the higher the value of this indicator. Logically, if the value is less than 1, the club operates at a loss. The average effectiveness of overall operations of HNL I clubs in 2014 was 0.76, and in HNL II 0.91. Net profit margin is the ratio of net profit and total income, and is calculated to determine the capability of generating a profit in relation to the accumulated revenues. The HNL II clubs are – with an average net profit margin of -0.1 – also by this indicator considerably more successful than the HNL I clubs with the average value of this indicator of less than -0.3. This fact is even more devastating taken into account that 10 HNL I clubs employ a total of 309, and 11 HNL II only 90 employees (table 6).

6 BUSINESS PERFORMANCES AND FINANCIAL POSITION

Total assets of HNL II clubs is only a bit higher than HRK 42m, while HNL I clubs' assets are even 17 times more valuable – amounting to HRK 731m (Table 7). Dinamo and Hajduk together have over HRK 538m in assets. Rijeka also stands out with its financial domination. Because of the uneven accounting framework certain adjustments to the items in the financial statements of clubs operating as non-profit organizations had to be made for

analysing the structure of assets and liabilities. The assets of non-profit organizations are not classified in reports only as long-term and short-term, but are also divided into produced and non-produced long-term assets, small inventory, non-financial assets in preparation, produced short-term assets and financial assets (without division into long-term and short-term). Keeping in mind the deficiencies of such classification and specifics of football clubs' operations in Croatia (which in principle should not have large amounts of long-term financial assets), their financial assets are entirely classified as short-term assets, as well as small inventory, non-financial assets in preparation and produced short-term assets. Other asset items are classified as long-term assets.

Most of assets consist of intangible assets - rights to players - which are recorded in the balance sheet in accordance with the IAS 38 and amortized annually. Long-term (produced and non-produced) assets of Dinamo in 2014 amounted to around HRK 150m.

The financing structure of football clubs is dominated by liabilities. Total liabilities of HNL I clubs amount to over HRK 600m, while their own financing sources stood at slightly less than HRK 125m (Table 8). HNL II clubs have nearly HRK 36m liabilities and just over HRK 6m of own capital. While it is not unusual for legal entities to borrow in order to finance profitable assets, such a large disproportion of own financing sources and liabilities of football clubs is - due to the specifics of the sector - indeed worrying. Particularly alarming is the finding that of 21 clubs covered with the analysis, 10 clubs (4 from HNL I and 6 from HNL II) have a negative value of capital. This means that their liabilities exceed total assets, i.e. when total assets would be converted into cash at book value, that amount would not be sufficient to cover the liabilities. A negative value of capital emerges as a consequence of the loss in excess of capital, which makes liabilities become greater than assets.

About 34% of short-term and over 50% of long-term liabilities of both HNL I & II football clubs together refers to the liabilities of Dinamo. Liabilities for loans to banks and other creditors of Dinamo in 2014 increased almost seven times. By far the greatest part of newly created liabilities relates to loans from banks and other creditors abroad.

Table 6 Indicators of turnover, effectiveness and profitability of football clubs in 2014

No	Football club	Type	Employees	Assets turnover ratio	Effectiveness of overall operations	Net profit margin
HNL I						
1	Dinamo	npo	86	0.38	0.57	-0.75
2	Zagreb	npo	16	6.08	1.17	0.14
3	Lokomotiva	npo	32	1.80	1.02	0.02
4	Slaven Belupo	npo	17	3.02	0.92	-0.09
5	Hajduk	plc	66	0.32	0.92	-0.09
6	Rijeka	plc	17	1.11	0.82	-0.21
7	Split	plc	30	0.73	0.84	-0.20
8	Osijek	plc	18	0.23	0.67	-0.48
9	Istra 1961	plc	19	0.83	1.00	0.00
10	Inter Zaprešić	npo	8	5.21	0.78	-0.28
TOTAL HNL I:			309	0.53	0.76	-0.31
HNL II						
1	Cibalia	plc	17	0.40	0.54	-0.85
2	Zadar	plc	13	0.62	0.82	-0.23
3	Dugopolje	npo	7	7.16	1.03	0.03
4	Gorica	npo	11	4.75	1.00	0.00
5	Hrvatski dragovoljac	npo	9	6.98	1.42	0.30
6	Imotski	npo	1	25.07	0.86	-0.16
7	Lučko	npo	7	0.23	0.91	-0.09
8	Rudeš	npo	4	4.32	1.14	0.12
9	Segesta	npo	0	3.83	0.79	-0.26
10	Sesvete	npo	9	0.40	1.47	0.32
11	Šibenik	plc	12	2.13	1.10	0.09
TOTAL HNL II:			90	0.88	0.91	-0.10
TOTAL HNL I & II:			399	0.55	0.77	-0.30

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

Table 7 Structure of assets of football clubs in 2014 (in HRK thousands)

No	Football club	Type	Total	Assets		Expenditures of future periods
				Long-term	Short-term	
HNL I						
1	Dinamo	npo	318,733	148,588	141,031	29,113
2	Zagreb	npo	2,770	233	2,537	0
3	Lokomotiva	npo	18,669	8,960	9,708	0
4	Slaven Belupo	npo	4,924	1,614	2,249	1,060
5	Hajduk	plc	219,444	185,136	31,945	2,363
6	Rijeka	plc	60,600	16,691	43,451	459
7	Split	plc	42,528	36,415	6,113	0
8	Osijek	plc	41,544	39,714	1,330	500
9	Istra 1961	plc	20,937	18,518	2,379	40
10	Inter Zaprešić	npo	1,250	26	1,224	0
TOTAL HNL I:			731,399	455,897	241,968	33,534
HNL II						
1	Cibalia	plc	14,029	11,521	2,508	0
2	Zadar	plc	12,130	1,686	10,444	0
3	Dugopolje	npo	402	194	208	0
4	Gorica	npo	761	109	651	0
5	Hrvatski dragovoljac	npo	917	86	830	0
6	Imotski	npo	46	0	46	0
7	Lučko	npo	6,712	6,382	330	0
8	Rudeš	npo	550	169	381	0
9	Segesta	npo	298	58	133	107
10	Sesvete	npo	4,890	4,705	185	0
11	Šibenik	plc	1,403	18	1,385	0
TOTAL HNL II:			42,137	24,928	17,102	107
TOTAL HNL I & II:			773,536	480,825	259,070	33,640

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

Table 8 Structure of capital and financing sources of football clubs in 2014 (in HRK thousands)

No	Football club	Total	Capital and reserves	Liabilities		Revenues of future periods
				Short-term	Long-term	
	HNL					
1	Dinamo	318,733	46,629	103,728	167,534	842
2	Zagreb	2,770	-12,531	4,696	10,605	0
3	Lokomotiva	18,669	5,543	10,342	2,782	1
4	Slaven Belupo	4,924	778	3,259	886	0
5	Hajduk	219,444	135,063	63,405	17,053	3,922
6	Rijeka	60,600	10,508	49,693	239	161
7	Split	42,528	-30,659	10,087	63,101	0
8	Osijek	41,544	-33,584	11,613	63,516	0
9	Istra 1961	20,937	4,061	16,877	0	0
10	Inter Zaprešić	1,250	-1,401	1,476	1,175	0
	TOTAL HNL I	731,399	124,407	275,176	326,891	4,925
	HNL II					
1	Cibalia	14,029	750	11,629	1,650	0
2	Zadar	12,130	4,322	7,808	0	0
3	Dugopolje	402	-106	508	0	0
4	Gorica	761	19	189	552	0
5	Hrvatski dragovoljac	917	-400	1,087	230	0
6	Imotski	46	-249	91	204	0
7	Lučko	6,712	5,085	1,435	192	0
8	Rudeš	550	-1,230	292	1,488	0
9	Segesta	298	-726	1,017	0	6
10	Sesvete	4,890	4,573	317	0	0
11	Šibenik	1,403	-5,550	6,953	0	0
	TOTAL HNL II:	42,137	6,489	31,326	4,315	6
	TOTAL HNL I & II:	773,536	130,896	306,502	331,206	4,931

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

Table 9 Selected ratios of liquidity and indebtedness of football clubs in 2014

No	Football club	Liquidity		Debt ratio	Capital structure
		Current ratio	Cash ratio		
	HNL I				
1	Dinamo	1.36	0.01	0.94	5.82
2	Zagreb	0.54	0.00	5.52	-1.22
3	Lokomotiva	0.94	0.04	0.70	2.37
4	Slaven Belupo	0.69	0.20	1.07	5.33
5	Hajduk	0.50	0.02	0.37	0.60
6	Rijeka	0.87	0.59	0.83	4.75
7	Split	0.61	0.00	1.72	-2.39
8	Osijek	0.11	0.01	1.83	-2.24
9	Istra 1961	0.14	0.02	0.81	4.16
10	Inter Zaprešić	0.83	0.00	2.12	-1.89
	TOTAL HNL I:	0.88	0.12	0.86	4.84
	HNL II				
1	Cibalia	0.22	0.00	0.95	17.70
2	Zadar	1.34	0.00	0.64	1.81
3	Dugopolje	0.41	0.00	1.26	-4.78
4	Gorica	3.45	0.63	0.97	38.44
5	Hrvatski dragovoljac	0.76	0.10	1.44	-3.29
6	Imotski	0.50	0.13	6.45	-1.18
7	Lučko	0.23	0.04	0.24	0.32
8	Rudeš	1.30	1.03	3.24	-1.45
9	Segesta	0.13	0.01	5.32	-1.40
10	Sesvete	0.58	0.30	0.06	0.07
11	Šibenik	0.20	0.01	4.96	-1.25
	TOTAL HNL II:	0.55	0.03	0.85	5.49
	TOTAL HNL I & II:	0.85	0.11	0.86	4.87

Note: npo – non-profit organization; plc – public limited company.

Source: Football clubs' financial statements for 2014

Quite unfavourable financial position of football clubs is confirmed also by indicators of liquidity and indebtedness. Liquidity is a characteristic of assets to convert into cash needed to meet liabilities. In other words, clubs' liquidity reveals the ability to timely meet liabilities.

Current ratio is calculated as the ratio of current assets to current liabilities putting in the relationship the coverage and the need for cash within one year. The value of the indicator greater than one means that the portion of current assets is financed from long-term sources, which is a characteristic of prudent financial management. Current liquidity of HNL I clubs is 0.88 and HNL II 0.55 (Table 9). Thus, HNL I clubs can cover with their current assets (on average) about 88% of current liabilities, and HNL II clubs only 55%. While most football clubs have indicator values far lower than one, there are a few clubs (Dinamo, Zadar, Gorica and Rudeš) with the current ratio greater than one. This finding should be interpreted with caution because these clubs are mostly non-profit organizations with all financial assets characterized as short-term (for the purpose of comparative analysis), which made their value probably overrated. This doubt can best be checked by observing the cash ratio (ratio of cash and short-term liabilities) which reveals how much of the short-term liabilities can immediately be covered by the most liquid assets - cash. HNL I clubs can cover about 12%, and HNL II clubs only 3% of current liabilities with cash (table 9).

The debt ratio is the ratio of total liabilities to total assets and shows what portion of total assets is purchased by borrowing. Preferably, the debt ratio should be 0.5 or less. However, HNL I clubs have the debt ratio of 0.86, and HNL II clubs slightly less – 0.85. Only one HNL I club (Hajduk) and two HNL II clubs (Lučko and Sesvete) have a debt ratio of less than 0.5. Other clubs in general have several times higher values, additionally proving their poor financial position and the need for urgent interventions in their financial management in order to maintain the business continuity. The capital structure represents the ratio of debt (total liabilities) and equity. The high value of this indicator points to difficulties in meeting financial obligations – the problem of repaying the principal of the debt and interest payments. There is no consensus on what should be the value of this

indicator, but the value of debt to equity ratio of 1:1 is commonly characterised as a conservative, a 2:1 as the debt ceiling. The debt to equity ratio for HNL I clubs in 2014 was 4.84:1, and for HNL II clubs 5.49:1. These values reveal that the borrowing limit has been broken even in the liberal financial framework.

7 CONCLUSION

Comparing the financial position of clubs from HNL I and II, it is clear that HNL I is a league of professional clubs with a total value of players of about HRK 1.3bn. Professional orientation of HNL I clubs is confirmed by the structure of players who are often purchased from abroad in order to achieve top sport results and generate operating revenues. Through such operations, clubs are to a lesser extent representing the public good. Therefore, it is reasonable to question their preferential treatment in terms of structure (organisation), preferential tax treatment and public subsidies.

In addition to the fact that non-profit organizations are generally not liable to income tax, the tax treatment of transfers of players is also questionable.

The financing structure of football clubs is dominated by liabilities. Especially worrying is the fact that of 21 clubs covered by the analysis, 10 clubs have a negative value of capital. Liabilities of Dinamo represent one half of long-term liabilities of all HNL I and HNL II clubs. A large part of these liabilities, which in 2014 increased almost seven times, refers to loans from banks and other creditors abroad.

Quite unfavourable financial position of football clubs in Croatia is confirmed by indicators of liquidity and indebtedness. According to all analysed parameters, clubs generally have a pretty bad financial position. This further indicates the need for urgent regulation of this sector and establishing a stable legal and institutional infrastructure for its long-term sustainability. It is vital to clearly profile the status of football clubs and their organizational structure. For publicly financed football clubs, concrete ways and amounts of funding, but also the purpose of funds collected in such a way should be prescribed.

Financial results and created liabilities point to the fact that football has grown and transformed from financially less important social activity with obvious public benefits into a serious economic branch with increasingly represented private interests. Although only a small fraction of clubs in

Croatia (mostly those from HNL I) passed the transition to a professional sport, it is necessary to clearly delineate the operations of professional and amateur clubs. In line with their status, football clubs should be treated in the system of public financing.

WORKS CITED

- Chadwick, S. & Beech, J. (2004). *The Business of Sport Management* Essex: Prentice Hall.
- Foster, G. & Greyser, S. A. (2005). *The business of Sport Management: Text and Cases on Strategy and Management*. Mason: Thomson.
- Gomez, S., Marti, C., & Opazo, M. (2008). The Structural characteristics of Sport Organisation: Differentiations within Elite Spanish Professional Football Clubs. *University Navara Wong Paper WB 751*. doi: 10.2139/ssrn.1269332
- Kikulis, L. M., Slack, T., & Hinings, B. (1995). Does decision-making make a difference? Patterns of change within Canadian national sporting organizations. *Journal of Sport Management*, 9(3), 135-153.
- Morrow, S. (1997). Accounting for Football Players. Financial and Accounting Implications of 'Royal Club Liégeois and Others V Bosman' for Football in the United Kingdom. *Journal of Human Resource Costing and Accounting*, 2(1), 55-71. doi: 10.1108/eb029035
- Mourão, P. (2005). A importância do desenvolvimento regional na localização de equipas de futebol profissionais. O caso português 1970-1999. *Revista Portuguesa de Estudos Regionais*, (8), 31-45.
- Mourão, P. (2010). Regional determinants of competitiveness: the case of European soccer teams. *International Journal of Sport Finance*, 5 (3), 222-234.
- Mourao, P. R. & Cima, C. C. (2011). What makes non-profit soccer teams run? A panel data approach using a sample of Braga teams. *Financial Theory and Practice*, 36(2), 199-220. doi: 10.3326/fintp.36.2.4
- Nagy, Z., I. (2012). Financing Methods in Professional Football. *Working paper 1201*.
- Sloan, P. (1971). The Economics of Professional Football: The Football Club as a Utility Maximiser. *Scottish Journal of Political Economy*, 18(2), 121-146. doi: 10.1111/j.1467-9485.1971.tb00979.x
- Szymanski, S. & Hall, S. (2003). *Making money out of football*. London: The Business School, Imperial College.
- UEFA (2012). *Club licensing and Financial Fair Play regulations 2012*. Geneva: UEFA.
- Van Uden, J. (2005). Transforming a football club into a total experience entertainment company: implication for management. *Managing Leisure*, 10(3), 184. doi: 10.1080/13606710500239087

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REVIEW ESSAY OF NIALL FERGUSON'S CIVILIZATION: THE WEST AND THE REST

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Abstract

Review essay of Ferguson, Niall. 2011. *Civilization: The West and the Rest*. Penguin Books, 403 pages. Why has the west done better than the rest of the world in terms of economic development? Ferguson (2001) offers six reasons: competition, science, property rights, medicine, consumption and the work ethic. This review agrees with all except for this emphasis on Keynesian consumption, but finds much more with which to disagree.

Keywords: Economics, history, development, imperialism

REVIEW OF FERGUSON'S "CIVILIZATION: THE WEST AND THE REST"

This is a very important book. It is crucial that those of us in the west, and, indeed, in the entire world, understand why it is that the former, in the main, has much closely approached the honorific "civilization" than has what Ferguson calls "the rest," countries not fortunate enough to be included in this relatively fortunate group of nations. However, despite its positive contribution, this book has many flaws.

This author offers six explanations why the U.S., Canada, much of Western Europe, and a few other nations such as Japan, have done so well in this regard, and have outstripped many other countries. They are as follows: competition,

science, the rule of law, modern medicine, consumerism and the work ethic. I am in full accord with Ferguson on four out of the six of these phenomena: competition, science, modern medicine, and the work ethic. They are good explanations as to why some countries prosper, and others do not. I fear I must part company with him on the other two: the rule of law and consumerism. The former is a necessary but not sufficient condition (Nazi Germany abided by it), and the latter is just warmed over Keynesianism, something that leads to and implies retrogression, not progress.

With this introduction, let us consider some of the specific problems I have with this book.

Ferguson does not start out on the right foot. He attributes Chinese economic success (p. xviii): "... to a highly effective government stimulus programme based on massive credit expansion..." If so, this would be the first time on record for any such accomplishment. Any economic achievement in this nation, and it cannot

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be denied that there is plenty, is in spite of, not due to, government interventions of this sort. Here is another error (p. xix): "... the past is really our only reliable source of knowledge about the fleeting present..." It is, perhaps, understandable, that an eminent historian would say this. After all, we all tend to promote our own professions. Well, let me promote mine: there are economic laws "out there" that are also good guides to the present and future. For example, price controls lead to shortages and surpluses of goods, excessive monetary creation creates higher prices, free trade maximizes welfare, etc. And what of the findings of the disciplines of chemistry, physics, mathematics, that are not limited to occurrences in the past? Do they not also shed light on past events and also on what is to come?

I resist our author's use of the words "anarchy," "anarchic," etc. (p. 4) to depict chaos, or "wilderness." Etymologically, the prefix "an" indicates opposition to. So, what do anarchists oppose? Why, archy, of course. And what pray tell is this? It consists of unjustified rule of one person over another. It is thus at least an empirical question as to whether or not we will have more chaos under archy or anarchy. Would we really be better off with a one world government, or with the present anarchy amongst the present some 200 nations? Perhaps this is not much of a horse race after all.

Ferguson violates another pet peeve¹ of mine when he characterizes poor countries as "developing" (p. 7). Yes, some of them are indeed improving their economic situations. But, just as assuredly, many of them are actually retrogressing. The motive for this, our present author is hardly the first to commit such an error for this reason, seems to be that if we call something with a positive name, this will help promote the goal we wish to see (economic development, in this case). But this is magical thinking. It is akin to giving Barack Hussain Obama a Nobel Peace Prize, a few short weeks after he took office. As social scientists, we should surely

rank terminological accuracy over fraudulent nomenclature, however ethically and positively motivated.

The author of this book (p. 7) takes the position that western governments intervene in the economy "to try to smooth the business cycle and reduce income inequality." If so, they have not done much of a good job of it. If we compare the economic oscillations for 100 years before and after the creation of the Federal Reserve in 1913, we come away with a very different conclusion.² Ditto for economic inequality, not that this should be any business of the state.³

I. Competition

I fully support Ferguson's choice of competition as one of the most important bulwarks of western economic progress. It is too bad he does not understand what competition is all about. For one thing, it is competition in the private marketplace that deserves the accolades, not government. What are we to make, then, of his statement (p. 22) that "China's Grand Canal ... enabled the imperial government to smooth the price of grain through the five state granaries, which bought when grain was cheap and sold when it was dear?" It constitutes yet another attack on the free enterprise system, and thus a support for statism. Suppose the government erred, and, instead, bought high and sold low, thus making losses and destabilizing prices. The state would then lose money. But it would not be forced to go out of business, the precise result for private speculators. This is why the latter tend to succeed in dampening down variations in prices and quantities available to the consumer. Should we then rely on statist "competition" in this regard? Of course not. Why, then, this worshipful attitude toward economic fascism, or mixed economy interventionism, on the part of Ferguson, and in the name of "competition" of all things?

Our man does not much like "cut-throat competition" (p. 36). This bespeaks economic

¹ He does so again (p. 14) with regard to "rent-seeking." Why use an innocent concept like "rent" to represent the heinous act of stealing, via government intervention? Why not call this act, instead, booty-seeking, or theft-seeking or plunder?

² See fn. 25, below.

³ One way to reach this goal is to take the wealth of the rich away from them, without giving any of it to the poor. This would promote equality. But the fact that this abhorrent, at least to most, casts doubt on the moral justification of egalitarianism in the first place.

illiteracy on his part. He appears to be laboring under the myth of “perfect competition” where competition is equated with the number of competitors. Lots of them, and we are alright; too few, and we embrace monopoly, or duopoly, or oligopoly. But this is nonsense on stilts. There are many, many taxi companies in a big city, but they are monopolistically trying to legally prevent firms such as Uber and Lyft from competing. There are only two pugilists in the boxing ring, and yet it is difficult to envision anything more competitive. Does Ferguson really think that companies which lower prices, offer better service, more guarantees, etc., literally cut anyone’s throat?⁴ It is difficult to avoid the conclusion that this assessment is precisely correct in the present case.

This author extends “competition” to war, and sees “three unintended benefits. First it encouraged innovation in military technology (p. 37).” Fair enough, but, only if such breakthroughs ultimately help societies will this be of much use. Second, he avers, is that “the rival states grew progressively better at raising the revenue to pay for their (military) campaigns.” Oy, oy, oy. Bigger, richer and more omnipresent governments better promote economic development and welfare?⁵ Why, then, the tailspin for the U.S.S.R? Cuba? North Korea? Ferguson also supports (p. 38) “public debt” and “granting monopoly trading rights.” About the former, the less said the better. About the latter, whatever happened to his support for competition?

Another error in this competition section of the book concerns his support for the Malthusian population trap (p. 45). But this is easily disposed of. According to that worthy, mankind is destined to be trapped into an income level of subsistence. Whenever foodstuffs rise above that level, population does, too, and must be decimated by war, pestilence, disease, starvation, whatever. However, were we to truly live in a widespread and continual milieu of subsistence, no one would pay

for a slave, nor expend the energy necessary to capture one. What is the point of having a slave who cannot produce any more than that amount necessary to keep himself alive? But, we have always had slavery, all during history. Every historian should know this. Therefore, we never could have been at subsistence level for any extended period of time. QED to Malthus, and also to Ferguson’s support of him.

II. Science

Here, our author is on firmer ground. He does an excellent job of making the case that openness to science is crucially important for economic development. In example after example, Ferguson demonstrates that those societies which embraced science and the scientific method prospered, while those that did not, did not. This chapter is so good it is worth the entire price of admission.

There is only one small quarrel I would pick with him here; he is a bit too enamored of the “positive contributions of ... military conflict” (p. 65). Yes, “the relationship between warfare and scientific progress was very close indeed.” But did the former help or hinder the latter? Ferguson sees the two as complements. I see them as substitutes, to employ some basic economic verbiage.⁶ Our author, unfortunately, continues in this vein (p. 75), approvingly citing this quote: “It is ... better to engage in an offensive war when one is free to opt between the olive branch and the laurel wreath than to wait until those desperate times when a declaration of war can only momentarily postpone slavery and ruin.” It is one thing to favor defensive war; this cannot but help promote progress since if taken over by a hostile force, economic welfare, let alone improvement thereof, comes to an abrupt halt. But it is quite another matter, as per Ferguson, to champion invasive, offensive wars. True, Great Britain did so on a massive scale, and was also highly successful from a commercial point of view. But

⁴ For more on this see Barnett, Block and Saliba, 2005; Block, Barnett II and Wood. 2002; DiLorenzo, 2011; Gordon, 1997; Hayek, 1964, 2010; Lewin and Phelan. 1999; Machovec, 1995; Reisman, 2005; Rothbard, 1961; Salerno, 2011; Salin, 1996. In the insightful view of Hayek (1964, p. 96) “In perfect competition there is no competition...”

⁵ This will come as shocking news to theorists such as Bauer, 1972, 1984, 1987; Bauer and Yamey, 1957; Hanke, 1987; Gwartney, 1996.

⁶ A good source for the claim that not only is war “the health of the state” (Bourne, 1918; also, Hummel, 1980) but it also undermines, does not promote, scientific progress, see Klein (2013).

imagine a United Kingdom that minded its own business, did not engage in imperialistic adventures all over the globe. It is easy to see even greater prosperity in this contrary to fact conditional supposition. That is to say, Britain's economic development came about in spite of its military adventurism, not because of it.⁷

Here is yet another flaw in an otherwise splendid chapter devoted to exploring the benefits of science (p. 89): "New armies, new uniforms, new anthems and new palaces were all very well. But without an effective system of taxation to finance them...." Arms, uniforms, anthems and palaces hardly explain why the West does better than the rest in terms of improving civilization. And the more taxation the better in this regard? These claims are highly problematic. Even more so, our author sees no reason to defend these out-on-a-limb assertions against possible criticisms.

One wonders, also, at this statement (p. 93): "To an extent that is truly remarkable for such a small country, Israel is at the cutting edge of scientific and technological innovation." Based upon higher Jewish IQ (Cochran, Hardy and Harpending, 2006; Murray, 2007) the real wonder would be if this were *not* the case.⁸ Of course Ferguson is correct when he tells us (p. 94) "Israel has more scientists and engineers per capita than any other country and produces more scientific papers per capita. As a share of gross domestic product its civilian research and development expenditures is the highest in the world." What else could we expect from a people that have embraced science and intellectual accomplishments more enthusiastically than perhaps any other (Murray, 2003)?

⁷ In similar manner, the U.S. has more than 800 military bases in some 140 countries (Department of Defense, 2007; Vance, 2010.). Surely, *ceteris paribus*, its inhabitants would be far more well off if these expenditures were avoided. "Bring the troops home" will help economic development, not harm it.

⁸ This is more than passing curious in that Ferguson himself (p. 235) acknowledges this phenomenon, noting "the disproportionate role played by Jews in every area of intellectual life... Accounting for around 0.2 per cent of the world's population and 2 per cent of the American population, Jews won 22 per cent of all Nobel Prizes, 20 per cent of all Fields Medals for mathematics and 67 per cent of the John Clark Bates (sic) Medals for economists under the age of forty."

III. Property

Ferguson rightly opines that it was not soil fertility or natural resources or better weather or river and port availability to which western civilization owes its success, but, rather (p. 97) to "the sanctity of individual freedom and the security of private property rights..." Tell is like it is, brother! Right on. But, why does he have to ruin these brilliant insights by juxtaposing his appreciation of them cheek by jowl with praise for of all things, democracy and the rule of law? What is so wonderful about the former? That ignoramus Winston Churchill famously said "Democracy is the worst form of government, except for all the others." But this is clearly wrong. As Hoppe (2001) demonstrates, monarchy in many ways is far superior. The king has far less incentive to "make hay while the sun shines," e.g., to pillage the economy for his own immediate benefit⁹ during a relatively brief time in office. The sovereign, in sharp contrast, can hand over the kingdom to his heirs, and thus has a far greater incentive to at least preserve if not to expand it.¹⁰ Nazi Germany was a democracy. Hitler did not come to power through a coup d'etat. Rather, he ascended to his office via the democratic process. So much for democracy. Ferguson (p. 104) denigrates "the primrose path of absolutism." If by this he means non democratic countries, how does he account for the success of economic powerhouses such as China, Hong Kong, Singapore?

We must give a similar back of our hands to the rule of law. The Nazi government abided, strictly, by this requirement. There was very little lawlessness in this regime. Instead, the law was followed to a "T."¹¹ No defendants ever spoke

⁹ Lyndon Baines Johnson, the Clintons, became fabulously wealthy in this manner and to that effect. On the former, see Caro, 1991, 2002; Goodwin, 1991; Shafer, 2007. As to the latter, Halper, 2015; Hudson, 2015; Seitz-Ward, 2014.

¹⁰ In terms of timing, it would appear that the best is the most extreme. A life long tenure leads to economic growth (Hoppe, 2001), as would a very short duration in office. For example, if people could only become president for a day, or, even, an hour, this might be too short a time period to ruin the economy with regulations, theft, etc.

¹¹ What about those thugs who molested innocent Jews, Gypsies, gays, blacks and other so-called "vermin?"

more truly when those in the dock at the Nuremberg trials said they were only following legitimately enacted laws and orders when they engaged in their heinous crimes. No. The rule of law may well be a necessary precondition of the good society, but it is very far from being sufficient. Also required is substantive law that protects innocent people and their property, something the rule of law, in and of itself, cannot do.

Nor can we accept the notion of the (p. 105) "resource curse" of cheap gold and silver." Since when do low cost factors of production lead to economic stagnation? Would a country be better or worse off if faced with high priced resources, other things equal? To ask this is to answer it. Yes, Spain imported much gold and subsequently suffered economic disarray, but this sort of historical conjunction hardly establishes a cause and effect relationship. Ferguson should ask himself if an economy that imports oil would really be better off if its price doubled or tripled.

Our author swallows whole Locke's misbegotten notion that there is "implicit consent of all citizens (p. 108) and "a consent of the majority of representatives" (p. 109) to taxation. Do scholars of this sort make these things up as they go along? It is a bit late for Locke, but Ferguson would do well to peruse some critics of social contract theory,¹² who demonstrates the utter fallaciousness and absurdity of thinking that governments govern with the consent of the governed. Spooner (1870) mentions, and magisterially rejects, the notion that paying taxes, or voting, can establish any such thing.

Ferguson's support for property rights is only skin deep, as he excoriates "property speculators" (p. 116). What, exactly, does such an economic actor actually do? It is simple: he buys and sells property. But the right to purchase and vend is surely a basic, necessary aspect of overall private property rights. Take the one away and the other all but disappears. States Malcolm (1958, pp. 31-32) of his teacher, Ludwig Wittgenstein: "On one walk he 'gave' to me each tree that we passed, with the reservation that I was not to cut it down or

do anything to it, or prevent the previous owners from doing anything to it: with those reservations it was henceforth *mine*." The point is, if you cannot buy and sell, that is, if you cannot *speculate*, ownership is fatally abridged. It is more than passing curious that our author would thus undermine property rights in a chapter ostensibly devoted to protecting and defending them.

This Harvard professor is quite right in focusing on the inequality of property holdings in Central and South America. He says (p. 124): "In post-independence Venezuela, nearly all the land was owned by a creole elite of just 10,000 people – 1.1 per cent of the population." Some commentators, happily not the subject of this book review, lay the blame for this state of affairs on laissez faire capitalism. Not so, not so. Rather, the genesis for this phenomenon is the takeover of these territories by the conquistadores, hardly an aspect of the free marketplace.

Ferguson puts his foot wrong on slavery and secession what he says (p. 136): "... the anomaly of slavery in a supposedly free society could be resolved only by war between the pro-slavery states of the South and the anti-slavery states of the North.... Yet although the Civil War ended slavery..." No, no, no. In 1861, there were no "anti-slavery" states" in the North. This "curious institution" prevailed throughout the United States. This war was fought over tariffs, not slavery. Lincoln's purpose was to save the union, and had little to do with slavery. Said President (Honest Abe) Abraham Lincoln (1862): "My paramount object in this struggle *is* to save the Union, and is *not* either to save or to destroy slavery. If I could save the Union without freeing *any* slave I would do it, and if I could save it by freeing *all* the slaves I would do it; and if I could save it by freeing some and leaving others alone I would also do that."¹³ The 16th president of America initially only freed the slaves in the South, not the North. Nor did any "Civil War" take place at that time. This was rather a war of secession. In a true civil war, both sides wish to rule the entire country. In Spain in 1936, and in Russia in 1917, there were actual civil wars,

These depredations may not have been congruent with regard to de jure law, but they certainly were so as far as de facto law was concerned: the German police stood idly by and/or actually encouraged such "extra" legal atrocities.

¹² DeJasay, 1989; Evers, 1977; Machan, 1983; Outlaw, 2008; Spooner, 1870.

¹³ For more on this, see DiLorenzo (2002A, 2002B, 2006)

since each party to the conflict desired sovereignty over the entire nation. But the South never sought to control the North. The southern states only intended to secede from the northern ones, in much the same manner as the thirteen colonies had separated from Britain in the Revolutionary war of 1776. So the correct appellation for the “unpleasantness” of 1861 is War of Secession, or War to Prevent Secession, or War between the states, or, most accurately, War of Northern Aggression.¹⁴

What are we to make of this erroneous claim of Ferguson's (p. 138): “Far from being indispensable to its success, slavery and segregation were handicaps to American development, their legacy still painfully apparent in the social problems – teenage pregnancy, educational underachievement, drug abuse and disproportionate incarceration – that now bedevil so many African-American communities.” Our Harvard historian could benefit from a crash course in the research of Thomas Sowell and Walter Williams who refute these pious sentiments over and over again. Teenage pregnancy, particularly in the black community, is the result of President Lyndon Johnson's Great Society programs, which made young pregnant girls a much better financial offer than the teenage fathers of their children (Murray, 1984). There was much less educational underachievement on the part of blacks in the first half of the 20th century, when segregation was much more prevalent, and slavery more recent, than in the second, and in the beginning of the 21st. As for the plight of African-Americans the legacy of slavery, Sowell, 2015B maintains: “Were children raised with only one parent as common at any time during the first 100 years after slavery as in the first 30 years after the great expansion of the welfare state in the 1960s?

As of 1960, 22 percent of black children were raised with only one parent, usually the mother. Thirty years later, two-thirds of black children were being raised without a father present.”¹⁵ Yes, there is a disproportionate incarceration of blacks on drug offences due to the different types of these prohibited substances used in the two communities, but this was due in large part to the actions of the Congressional Black Caucus.¹⁶

IV. Medicine

This is an important chapter and Ferguson makes a significant contribution to our understanding of the importance of this phenomenon. This is especially true since most commentators on why the West outstrips the Rest do not emphasize this element. Our author makes a good case for the influence that medical progress makes toward overall economic and social development. But as per usual, in doing so, he commits all sorts of errors along the way.

For example, he (p. 149) takes the position that a “central note-issuing bank” helps promote economic progress. First of all, this is wrong. Instead, this misbegotten institution creates ruinous inflation and exacerbates and even causes the business cycle. Compare the U.S. economy in the hundred years before and after the creation of the Fed in 1913. The oscillations were far more serious in the latter period. Second, what in bloody blue blazes does central banking have to do with the ostensible burden of this chapter, medicine?

Here is another example. Ferguson (p. 149) equates “privatization” with “creating a bloated public payroll of parasites.” Say what? This is “privatization?” Advocates of this system¹⁷ would

¹⁴ It is erroneous to tie secession per se to support for slavery. The first state to attempt at secession was Massachusetts in 1825; they wanted to depart from the Union as a *protest* against this inhumane system. The relations of Quebec to Canada, Scotland to the United Kingdom, the latter to the European Community, Catalonia to Spain have absolutely nothing to do with slavery; rather, they are all attempts at secession.

¹⁵ On the fallacy of the legacy of slavery as an explanation for disarray in the black community: Sowell, 2015A, 2015B, 2015C, 2015D; Williams, 2001, 2015A, 2015B

¹⁶ The Congressmen feared the depredations of drugs more than the loss of liberty these laws embodied. See on this Cassiel, 2015; DiIulio, 1996; Mann, 2013; Serwer, 2011; Thernstrom and Thernstrom, 1997, pp. 264, 278-279; Venugopal, 2013A, 2013B

¹⁷ Anderson and Hill, 1979; Benson, 1989, 1990; Block, 2007; de Wolf, 2004; DiLorenzo, 2010; Guillory & Tinsley, 2009; Hasnas, 1995; Higgs, 2009; Hoppe, 2008; King, 2010; Kinsella, 2009; Long, 2004; McKonkey, 2013; Molyneux, undated; Murphy, 2005; Olson, 1979; Rothbard, 1973, 1977, 1998; Scott, 2009; Stringham, 2007; Tannehill, 1984; Tinsley, 1998-1999; Woolridge, 1970.

be amazed that a Harvard professor could so misconstrue this aspect of economic logic. Or, maybe, come to think of it, Mr. Libertarian, Rothbard, would not be doing any such thing, so frequent is this misconception from emanating from that neck of the academic woods. Privatization is the exact *opposite* of a public payroll of parasites,¹⁸ bloated or not. Full privatization implies no public payroll *at all* for bureaucratic parasites.

Our economic historian properly castigates Napoleon Bonaparte for his mercantilism (p. 161), but, then, turns around and takes up this position himself, praising Britain for being "able to run a current-account surplus." I run a current account surplus with my employer. This institution pays me, in terms of my salary, far more than I purchase from it (a few meals at the cafeteria, publications from the bookstore upon occasion.) On the other hand, I run a current account deficit with McDonalds and Wal-Mart. I purchase far more from them, than they from me (zero, as it happens). Putting this the other way around, these retailers run a current account surplus with me. What any of this has to do with the price of tea in China, or, more to the point, with medicine, is beyond me. There is certainly no implication that since I run a surplus with my employer I exploit it, or, since the opposite pertains with these retailers, they immiserate me in any manner, shape or form.

Here is a problematic aspect of Ferguson's treatment that at least has the virtue of pertaining to medicine. He (p. 174) welcomes "universal healthcare." Why is this a difficulty? It is because he merely assumes its benefits. This author does not condescend to offer the arguments against socialized medicine, and attempt to refute them. Instead, he ignores the critics¹⁹ of such central

planning modalities. Let me then mention but a few objections. When medical care is priced at or near zero,²⁰ demand becomes greater than supply. In other words, shortages ensue. There are long queues for service.²¹ People treat healthcare services as the free good it is, under this system, and use it as if it were a free good. But it is not; it is still a scarce commodity. So it is overused, given its alternative costs. Socialized medicine becomes a hypochondriac's dream come true. Social misfits, who cannot get anyone to talk to them, can avail themselves of the company of a doctor or nurse. People use free ambulances instead of price charging taxi cabs. There is less self-medication than the presumably optimal amount would otherwise obtain.²²

Ferguson also steps into the treacherous waters of racism (p. 177). He maintains "that genetic differences between the races are relatively small, and the variations between races quite large." Does he offer any opinion as to what "small" and "large" are? He does not. Does he offer any empirical support for this claim? He does not. As is his wont, he blithely ignores those who sharply disagree with him²³, contenting himself with mouthing these pieties in the absence of any evidence in their behalf. Not very scholarly. Our Harvard professor really ought to read up on Mill (1859), who stresses the importance of interacting with, confronting, ones' intellectual competitors.

This chapter is also marred by Ferguson's claim that war promotes economic well-being. He opines (p. 188): "Yet war can also be a driver of human progress. As we have seen, the impressive advances of the Scientific Revolution were helped not hindered by the incessant feuding of the European States. The same was true of t the clash

¹⁸ One must pause for a moment, however, to admire the splendid alliteration.

¹⁹ Block, 2003B; Friedman, 1962, chapter 9; Goodman and Musgrave, 1992; Gratzner, 2005; Hamowy, 1984; Herbener, 1996; Holly, 2013; Hoppe, 1993; Johnson, et.al., 1998; Laydon and Block, 1996; Terrell, 2003.

²⁰ It is a "right" is it not, at least in the eyes of its advocates? Therefore, charging for it would violate rights.

²¹ Barua, et. al., 2010; DiLorenzo, 2009; Esmail, 2009A, 2009B, 2011; Globberman and Hoye, 1990; Hazel and Esmail, 2008; Sanmartin et al., 2004;

²² The felt need for socialist health care stems from the fact that it is now so expensive. But this is not due to the capitalist system. Rather it is a result of interferences with the market, mainly restrictions on entry. See on this fn. 18, supra.

²³ Benbow and Stanley, 1982; Gottfredson, 1986; Herrnstein and Murray, 1994; Jensen, 1981; Levin, 1997; Lynn and Vanhanen. 2002, 2006; Rushton, 1988, 1996, Rushton and Osborne, 1995; Rockwell, 2014; Sailer, 2011; Shockley, 1992; Seligman, 1992; Steyn, 2014; Taylor, 1998, 2014; Ward, 2014

of empires between 1914 and 1918. The slaughter-house of the Western Front was like a vast and terrifying laboratory for medical science, producing significant advances in surgery, not to mention psychiatry. The skin graft and antiseptic irrigation of wounds were invented. The earliest blood transfusions were attempted. For the first time, all British soldiers were vaccinated against typhoid, and wounded soldiers were given anti-tetanus shots.” The difficulty here is that he is engaging in a contrary to fact conditional. Yes, medical progress took place between 1914 and 1918. But, would it have occurred more quickly or more slowly in this half decade had there been no war at all? Ferguson simply does not consider this alternative possibility. What of the hundreds of thousands of very intelligent people who perished during this conflagration? Would any of them promoted medical technology to an even greater degree had they remained alive? We can never know the answers to these questions, but they cannot be ignored, either, as does our author, in assessing the connection between war and progress.

But let me end my coverage of this relatively not-so-bad chapter on a positive note. Ferguson exhibits great courage in acknowledging the positive role played by the imperialist powers in promoting the health of Africans. He states (p. 173, footnotes deleted): “In the words of the first Socialist Minister of Colonies, Marius Moutet, the aim of French policy was ‘to consider the application to the overseas countries of the great principles of the Declaration of the Rights of Man and of the Citizen.’ It is easy today to dismiss such aspirations as products of insufferable Gallic arrogance. But there is no question that here, as elsewhere, Western empire brought real, measurable progress. After the introduction of compulsory vaccination²⁴ in 1904, smallpox was significantly reduced in Senegal. In only four years between 1925 and 1958 did the number of cases exceed 400 a year. Malaria was also curbed by the systematic destruction of the mosquitoes’ swampy breeding grounds and by the isolation of victims,

as well as by the distribution of free quinine. Yellow-fever epidemics, too, became less frequent in Senegal after the introduction of an effective vaccine.”

To say this is politically incorrect would be a vast understatement. What? Praise dead white males for saving the lives of black people in Africa? This is surely unacceptable in the faculty club at any self-respecting Ivy League university. And yet there it is, in black and white, so to speak, a defense of imperialism. One need not be a fan of that institution to appreciate that it did indeed do some good. Congratulations to Ferguson, for telling it like it is.

V. Consumption

This is by far the worst chapter of the entire book. At least the other parts of this publication, albeit marred by error, made positive contributions. Competition, private property, the rule of law, science, the work ethic, are all assets in human development. In contrast, Ferguson’s emphasis on consumption is merely warmed-over Keynesianism.²⁵ In this view, the market continually fails and centrally planned monetary and fiscal policy is the only remedy. Left to its own devices, the free enterprise system threatens to veer off the proper roadway into the ditch of either unemployment or inflation. In the former case, expansionist policy whether monetary (right wing Keynesianism – quantitative easing) or fiscal (the left wing variety) is called for; the Fed must step on the gas pedal. In the latter case, the central planning board must employ the brakes, in either or both of these ways. Completely unexplained is what to do if both occur at the same time; e.g., stagflation. Then there is the “multiplier.” For every dollar spent by the government, the GDP will increase by a multiple of that amount. It is unclear on this account why it is that Zimbabwe and Argentina are not economic powerhouses.

Here is one last issue, more pertinent to this chapter. Consumption is good, saving is bad; it is “leakage” from the economy. We can spend

²⁴ For support of this policy under limited conditions see Block 2013A, 2013B

²⁵ Again, as is his practice, without mentioning any critiques of this misbegotten economic philosophy. I offer the following short bibliography in an attempt to fill

in this lacuna: Anderson, 2009; Cochran and Glahe, 1999; Dempster, 1999; Garrison, 1985, 1992, 2010; Hammond, 2012; Hoppe, 1992; Hutt, 1979; Murphy, 2008; Ritenour, 2000; Rostan, 2010; Rothbard, 1992; Skousen, 1992

ourselves out of any depression, with enough guidance from our masters in Washington D.C. Why, then, was the hyper-inflation of German in 1923 not a rip-roaring success? They were spending like crazy there and then.

What are some of the other mistakes in this chapter? This supposed economic historian favors protectionism and the infant industry argument (p. 202),²⁶ attacks the economic holy grail argument of comparative advantage (p. 202)²⁷ and misunderstands why we no longer have widespread child labor (p. 203).²⁸ This is economics 101 material, and it is shocking that an eminent professor of economic history is abjectly ignorant of what virtually all economists have to say about these matters. I recommend he read any introductory economic text, but in particular Hazlitt (1946).

Our Harvardian also supports intellectual property rights (p. 204),²⁹ criticizes the industrial revolution (pp. 203-207),³⁰ repeats his errors concerning Malthus (207), and extols the virtues of egalitarianism (p. 208)³¹ and thinks labor organizations in general, and "union pressure" (p. 210) in particular can promote economic growth.³² There seems to be no end to his embrace of left-liberalism, socialism, economic fascism and Keynesianism. It includes progressive taxation,

state pensions and government subsidies for education, the arts and the sciences (p. 210). And, all of this, of course, without lifting a finger to mention critics of these nostrums, and, less so, any attempt to intellectually counter them. The list continues to go on: Ferguson accepts (p. 215) the public goods concept,³³ subsidies to railroads,³⁴ slum clearance.³⁵ Unhappily, our professor takes (pp. 229-230) the Friedman and Schwartz (1963) position on the depression of the 1930s, that it was due to insufficient money creation on the part of the Fed, again ignoring alternative explanations emanating from a study of Austrian economics.³⁶ Ferguson (231) also shamefully advocates "government spending on public works" as a way of ending the Great Depression. As in the case of the more recent binge of quantitative easing, neither scheme worked.

VI. Conclusion

I am very ambivalent as to whether, how, and if so in what way, to recommend this book. On the one hand, I did learn from it. Ferguson is a good teacher, and a very learned man. On the other hand, as I have indicated, the volume is just littered with errors both of omission and commission, and I am not sure which is worse. Perhaps where I come down on this question is to "damn it with faint praise": I recommend this book

²⁶ Hint, free trade benefits all parties to it, at least in the ex ante sense; *all* new businesses are "infants" at their inception. Should we subsidize and protect each and every one of them?

²⁷ Hint, if he wants to maximize his income, Bill Gates should not do his own cooking, cleaning, laundry, even if he can do these tasks better, more efficiently, less expensively, than anyone else on the planet.

²⁸ Hint, it was productivity increases, not legislation, that is responsible for this salutary state of affairs.

²⁹ For a good remedy, see Boldrin and Levine, 2008; De Wachter, 2013; Kinsella, 2001, 2012; Long, 1995; Menell, 2007A, 2007B; Mukherjee and Block, 2012; Navabi, 2015; Palmer, 1989.

³⁰ For a defense of this life-giving occurrence, see Ashton and Hudson. 1998; Berg, 1992; Crafts, 1985; Deane, 1979; Floud and Johnson, 2003; Floud and McCloskey, 1994; Hartwell, 1967,1970, 1972; Hayek, 1954; Levin, 1998; McKendrick,1983; Mises, [1949] 1998; Nardinelli, 1990; Rosenberg and Birdzell. 1987; Shaffer, 2012; Taylor, 1975.

³¹ See Rothbard (1971) for a refutation.

³² For an example to the contrary, see "rust belt" in general, and Detroit in particular.

³³ For an alternative perspective, see Barnett and Block, 2007, 2009; Block, 1983, 2000, 2003A; Cowen, 1988; De Jasay, 1989; Holcombe, 1997; Hoppe, 1989; Hummel, 1990; Osterfeld, 1989; Pasour, 1981; Rothbard, 1985, 1997; Schmidt, 1991; Sechrest, 2003, 2004A, 2004B, 2007; Tinsley, 1999. Rothbard's (1997, 178) *reductio absurdum* of public goods is as follows: "A and B often benefit, it is held, if they can force C into doing something. . . . [A]ny argument proclaiming the right and goodness of, say, three neighbors, who yearn to form a string quartet, forcing a fourth neighbor at bayonet point to learn and play the viola, is hardly deserving of sober comment."

³⁴ See Kolko (1965) for an entirely different historical account

³⁵ Anderson, 1964

³⁶ This is the claim that the Austrian business cycle of the 1930s was fomented by the monetary expansion of the 1920s. See on this Rothbard, 1963

mainly for the fact that it is indicative of an erroneous mind set of historians, for the mistakes he commits are certainly not limited to this one individual.

BIBLIOGRAPHY

- Anderson, Martin. 1964. *The Federal Bulldozer*. Cambridge, MIT Press
- Anderson, Terry and Hill, P.J. 1979. "An American Experiment in Anarcho-Capitalism: The *Not So Wild, Wild West*," *Journal of Libertarian Studies*, 3: 9-29; http://mises.org/journals/jls/3_1/3_1_2.pdf
- Anderson, William L. 2009. "One Cheer for Paul Krugman, or Why the Bubble Economy?" January 1; <http://mises.org/story/3275>
- Ashton, T.S. and Pat Hudson. 1998. *The Industrial Revolution 1760-1830*. Oxford University Press
- Barua, Bacchus, Mark Rovere, and Brett J. Skinner. 2010. *Waiting Your Turn: Wait Times for Health Care in Canada* (20th ed.). Fraser Institute.
- Bauer, Peter T. 1972. *Dissent on Development*. Cambridge, MA: Harvard University Press
- Bauer, Peter T. 1984. *Reality and Rhetoric: Studies in the Economics of Development*, Cambridge Mass., Harvard University Press.
- Bauer, Peter T. and Basil S. Yamey. 1957. *The Economics of Under-Developed Countries*, The University of Chicago Press, Chicago, Il.
- Barnett, William, Walter E. Block and Michael Saliba. 2005. "Perfect Competition: A Case of 'Market-Failure,'" *Corporate Ownership & Control*. Vol. 2, No. 4, summer, p. 70-75
- Barnett, William II and Walter E. Block. 2007. "Coase and Van Zandt on Lighthouses," *Public Finance Review*, Vol. 35, No. 6, November, pp. 710-733
- Barnett, William and Walter E. Block. 2009. "Coase and Bertrand on Lighthouses," *Public Choice*; 140(1-2):1-13, <http://dx.doi.org/10.1007/s11127-008-9375-x>
- Benbow, Camilla and Julian Stanley. 1982. "Consequences in High School and College of Sex Differences in Mathematical Reasoning: A Longitudinal Perspective." *American Education Research* 19. Winter
- Benson, Bruce L. 1989. Enforcement of Private Property Rights in Primitive Societies: Law Without Government," *The Journal of Libertarian Studies*, Vol. IX, No. 1, Winter, pp. 1-26; http://mises.org/journals/jls/9_1/9_1_1.pdf
- Benson, Bruce L. 1990. "Customary Law with Private Means of Resolving Disputes and Dispensing Justice: A Description of a Modern System of Law and Order without State Coercion. *The Journal of Libertarian Studies*, Vol. IX, No. 2," pp. 25-42; http://mises.org/journals/jls/9_2/9_2_2.pdf
- Berg, Maxine. 1992. *The Age of Manufactures 1700-1820* (2nd ed.) New York City: Routledge
- Block, Walter. 1983. "Public Goods and Externalities: The Case of Roads," *The Journal of Libertarian Studies: An Interdisciplinary Review*, Vol. VII, No. 1, Spring, pp. 1-34; http://www.mises.org/journals/jls/7_1/7_1_1.pdf
- Block, Walter. 2000. "Word Watch," April 20; <http://www.mises.org/fullstory.asp?control=414&FS=Word+Watch>
- Block, Walter. 2003A. "National Defense and the Theory of Externalities, Public Goods and Clubs." *The Myth of National Defense: Essays on the Theory and History of Security Production*, Hoppe, Hans-Hermann, ed., Auburn: Mises Institute, pp. 301-334; <http://www.mises.org/etexts/defensemyth.pdf>
- Block, Walter. 2003B. "Socialized Medicine is the Problem," *Surgical Neurology*, Vol. 60, No. 5, November, pp. 467-46
- Block, Walter. 2007. "Anarchism and Minarchism; No Rapprochement Possible: Reply to Tibor Machan," *Journal of Libertarian Studies*, Vol. 21, No. 1, Spring, pp. 91-99; http://www.mises.org/journals/jls/21_1/21_1_5.pdf
- Block, Walter E. 2013A. "Libertarianism and Compulsory Vaccinations." January 19; <http://www.lewrockwell.com/blog/lewrw/archives/130928.html>

- Block, Walter E. 2013B. "Forced Vaccinations." February 4; <http://lewrockwell.com/block/block217.html>;
<https://www.lewrockwell.com/2013/02/walter-e-block/forced-vaccinations/>
- Block, Walter E., William Barnett II and Stuart Wood. 2002. "Austrian Economics, Neoclassical Economics, Marketing and Finance," *Quarterly Journal of Austrian Economics*, Summer, Vol. V, No. 2, pp. 51-66; http://www.mises.org/journals/qjae/pdf/qjae5_2_4.pdf
- Block, Walter E. and Michael Fleischer. 2010. "How Would An Anarchist Society Handle Child Abuse?" October 13; <http://www.lewrockwell.com/block/block167.html>
- Boldrin, Michele & David K. Levine. 2008. *Against Intellectual Monopoly*. <http://levine.sscnet.ucla.edu/general/intellectual/against.htm>; <http://mises.org/store/Against-Intellectual-Monopoly-P552.aspx>
- Bourne, Randolph. 1918. "War is the health of the state." <http://www.antiwar.com/bourne.php>
- Department of Defense. 2007. http://www.defenselink.mil/pubs/BSR_2007_Baseline.pdf
- Caro, Robert A. 1991. *Means of Ascent (The Years of Lyndon Johnson)*. Vintage Books.
- Caro, Robert A. 2002. *The Years of Lyndon Johnson: Master of the Senate. Volume Three, The Years of Lyndon Johnson series*. New York: Alfred A. Knopf
- Cassiel, Aedon Shevirah. 2015. "Is the War on Drugs Racist? The Surprising Truth Behind the Black Curtain of History." May 6; <http://zombiemeditations.com/2015/05/06/is-the-war-on-drugs-racist-the-surprising-truth-behind-the-black-curtains-of-history/>
- Cochran, Gregory, Jason Hardy and Henry Harpending. 2006. "Natural History of Ashkenazi Intelligence," *Journal of Biosocial Science*. September 38(5):659-693; <http://www.ncbi.nlm.nih.gov/pubmed/16867211>
- Cochran, John and Fred Glahe. 1999. *The Hayek-Keynes Debate-Lessons for Current Business Cycle Research*. Edwin Mellen Press, Chapter 8, pp. 103-118.
- Cowen, Tyler, ed. 1988. *The Theory of Market Failure: A Critical Examination*, Fairfax, VA: George Mason University Press; http://www.amazon.com/Theory-Market-Failure-Critical-Examination/dp/0913969133/ref=sr_1_1?ie=UTF8&s=books&qid=1200191409&sr=1-1
- Crafts, N. F. R. 1985. *British Economic Growth During the Industrial Revolution*. Clarendon Press
- Deane, Phyllis. 1979. *The First Industrial Revolution* CUP
- De Jasay, Anthony. 1989. *Social Contract, Free Ride: A Study of the Public Goods Problem*. Oxford, England: Oxford University Press; http://www.amazon.com/Social-Contract-Free-Ride-Paperbacks/dp/0198239122/ref=sr_1_1?ie=UTF8&s=books&qid=1200191531&sr=1-1
- Dempster, Gregory M. 1999. "Austrians and Post Keynesians: The Questions of Ignorance and Uncertainty." *The Quarterly Journal of Austrian Economics*. Vol. 2, No. 4, Winter, pp. 73-81; http://www.mises.org/journals/qjae/pdf/qjae2_4_5.pdf
- De Wachter, Joren. 2013. "IP is a thought crime." at TEDxLeuven. June 6; http://www.youtube.com/watch?feature=player_detailpage&v=E5BOBs3Nmbw
- de Wolf, Aschwin, ed. 2004. *Ordered Anarchy: Festschrift Essays in Honor of Anthony de Jasay*. Arlington, VA: Singularity Press.
- Dilulio, Jr., John J. 1996. "My Black Crime Problem, and Ours." Spring. http://www.city-journal.org/html/6_2_my_black.html
- DiLorenzo, Thomas J. 2002A. "The Consolidation of State Power via Reconstruction: 1865-1890," *Journal of Libertarian Studies*, Vol. 16, No. 2, Spring, pp. 139-161; http://mises.org/journals/jls/16_2/16_2_6.pdf
- DiLorenzo, Thomas J. 2002B. *The Real Lincoln: A New Look at Abraham Lincoln, His Agenda, and an Unnecessary War*. Roseville, Calif.: Prima Publishing.
- DiLorenzo, Thomas J. 2006. *Lincoln Unmasked: What You're Not Supposed to Know About Dishonest Abe*, Crown Forum
- DiLorenzo, Thomas J. 2009. "Socialized Healthcare vs. The Laws Of Economics," *Mises Daily*, no. 3586; July 28; <http://mises.org/daily/3586>

- DiLorenzo, Thomas J. 2010. "The Culture of Violence in the American West: Myth versus Reality." *The Independent Review*, v. 15, n. 2, Fall 2010, pp. 227–239; http://www.independent.org/pdf/tir/tir_15_02_4_dilorenzo.pdf
- DiLorenzo, Thomas. 2011. "A Note on the Canard of 'Asymmetric Information' as a Source of Market Failure." *Quarterly Journal of Austrian Economics*, Vol. 14, No. 2, 249–255, Summer http://mises.org/journals/qjae/pdf/qjae14_2_6.pdf
- Esmail, Nadeem. 2009A. *Waiting Your Turn: Hospital Waiting Lists in Canada* (19th ed.). Fraser Institute
- Esmail, Nadeem. 2009B. The Private Cost Of Public Queues, 2009. *Fraser Forum* (November):32-36.
- Esmail, Nadeem. 2011. "The private cost of public queues." *Fraser Forum*, March/April, pp. 22-27; <http://www.fraserinstitute.org/uploadedFiles/fraser-ca/Content/research-news/research/articles/private-cost-of-public-queues-march2011.pdf>
- Evers, Williamson M. 1977. "Social contract: a critique," *The Journal of Libertarian Studies*, Vol. 1, No. 3, Summer, pp. 185-194; http://mises.org/journals/jls/1_3/1_3_3.pdf
- Ferguson, Niall. 2011. *Civilization: The West and the Rest*. Penguin Books
- Floud, Roderick and Paul Johnson, eds. 2003. *The Cambridge Economic History of Modern Britain, Vol. I, Industrialisation, 1700-1860*. Cambridge University Press
- Floud, Roderick and D. McCloskey, eds. 1994. *The Economic History of Britain Since 1700, Vol. I, 1700-1860, 2nd ed.* Cambridge, U.K.: Cambridge University Press
- Friedman, Milton. 1962. *Capitalism and Freedom*, Chicago: University of Chicago Press
- Friedman, Milton and Anna J. Schwartz. 1963. *A Monetary History of the U.S., 1867-1960*, New York: National Bureau of Economic Research.
- Garrison, Roger W. 1985. "Intertemporal Coordination and the Invisible Hand: An Austrian Perspective on the Keynesian Vision," *History of Political Economy* vol. 17, no. 2 (Summer), pp. 309-21.
- Garrison, Roger. 1992. "Is Milton Friedman a Keynesian?" in *Dissent on Keynes: A Critical Appraisal of Keynesian Economics*. Mark Skousen, ed. New York: Praeger; <http://mises.org/books/dissent.pdf>
- Garrison, Roger W. 2010. "Is Milton Friedman a Keynesian?" January 27; <http://mises.org/daily/4067>
- Globerman, Steven, with Lorna Hoye. 1990. *Waiting Your Turn: Hospital Waiting Lists in Canada*. Fraser Institute.
- Goodman, John C. and Gerald L. Musgrave, 1992. *Patient Power: Solving America's Health Care Crisis*. Washington D.C.: Cato
- Goodwin, D.K. 1991. *Lyndon Johnson and the American Dream: The Most Revealing Portrait of a President and Presidential Power Ever Written*. Macmillan
- Gordon, David. 1997. "No Contest: review of *Perfect Competition and the Transformation of Economics*, by Frank M. Machovec, Routledge, 1995." *Mises Review*, Vol. 3, No. 3, Fall; http://mises.org/misesreview_detail.aspx?control=17
- Gottfredson, Linda S. 1986. "Societal consequences of the g factor in employment." *Journal of Vocational Behavior*, 29, 379-410.
- Gratzer, David. 2005. "The Return of HillaryCare: Socialized medicine is still not a good idea." *The Weekly Standard*. May 23; http://www.medicalprogressstoday.com/spotlight/spotlight_indarchive.php?id=778
- Guillory, Gil & Patrick Tinsley. 2009. "The Role of Subscription-Based Patrol and Restitution in the Future of Liberty," *Libertarian Papers* 1, 12; <http://libertarianpapers.org/2009/12-the-role-of-subscription-based-patrol-and-restitution-in-the-future-of-liberty/>
- Gwartney, James, Robert Lawson and Walter E. Block. 1996. *Economic Freedom of the World, 1975-1995*; Vancouver, B.C. Canada: The Fraser Institute
- Halper, Evan. 2015. "Hillary Clinton amassed a lot of wealth in recent years -- and does yoga." July 31; <http://www.latimes.com/nation/politics/la-na-clinton-disclosures-20150731-story.html>

- Hammond, Jeremy. 2012. *Ron Paul vs. Paul Krugman: Austrian vs. Keynesian economics in the financial crisis*. Create Space Independent Publishing Platform; http://www.amazon.com/Ron-Paul-vs-Krugman-Keynesian/dp/1470070723/ref=pd_rhf_dp_s_cp_3_QZQC
- Hamowy, Ronald. 1984. *Canadian Medicine: A Study in Restricted Entry*, Vancouver: The Fraser Institute
- Hanke, Steve H., ed., 1987. *Privatization and Development*, San Francisco: Institute for Contemporary Studies
- Hartwell, Ronald M., ed. 1967. *The Causes of the Industrial Revolution*. London: Methuen,
- Hartwell, Ronald M., ed. 1970. *The Industrial Revolution*. Oxford: Blackwell
- Hartwell, Ronald M., ed. 1972. "The Long Debate on Poverty: Eight Essays on Industrialization and the 'Condition of England,'" London: Institute of Economic Affairs,
- Hasnas, John. 1995. "The myth of the rule of law." *Wisconsin Law Review* 199; <http://faculty.msb.edu/hasnasj/GTWebSite/MythWeb.htm>
- Hayek, F.A., ed. 1954. *Capitalism and the Historians* (essays by T.S. Ashton, L.M. Hacker, W.H. Hutt, B. de Jouvenel), Chicago: The University of Chicago Press.
- Hayek, Friedrich A. 1964. *Individualism and Economic Order*. Chicago: University of Chicago Press.
- Hayek, Friedrich A. 1995. *Contra Keynes and Cambridge: Essays, Correspondence*. Chicago: University of Chicago Press
- Hayek, Friedrich A. 2010. "The Meaning of Competition." March 15; <http://mises.org/daily/4181>
- Hazel, Maureen and Nadeem Esmail. 2008. The Private Cost of Public Queues. *Fraser Forum* (December/January):25–29.
- Hazlitt, Henry. 1959. *The Failure of the "New Economics,"* New York: Van Nostrand
- Hazlitt, Henry, ed. 1983. *The Critics of Keynesian Economics* New York: New York University Press
- Hazlitt, Henry. 2008 [1946]. *Economics in One Lesson*. Auburn, AL: Mises Institute; http://mises.org/books/economics_in_one_lesson_hazlitt.pdf
- Heinrich, David J. 2010. "Justice for All Without the State." *The Libertarian Standard*. May 6; <http://www.libertarianstandard.com/articles/david-j-heinrich/justice-for-all-without-the-state/>
- Herbener, Jeffrey. 1996. "Socialized Medicine, Take Two." *The Free Market*. Vol. 14, No. 7, July. http://www.mises.org/freemarket_detail.asp?control=172&sortorder=articledate
- Herrnstein, Richard J., and Murray, Charles. 1994. *The Bell Curve: Intelligence and Class Structure in American Life*, New York: The Free Press
- Higgs, Robert. 2009. "Why We Couldn't Abolish Slavery Then and Can't Abolish Government Now." August 20; <http://www.lewrockwell.com/higgs/higgs128.html>
- Holcombe, Randall. 1997. "A Theory of the Theory of Public Goods," *Review of Austrian Economics*, Vol. 10, No. 1: 1-10; http://www.mises.org/journals/rae/pdf/RAE10_1_1.pdf
- Holly, Mike. 2013. "How Government Regulations Made Healthcare So Expensive." December 17; <http://bastiat.mises.org/2013/12/how-government-regulations-made-healthcare-so-expensive>
- Hoppe, Hans-Hermann. 1989. "Fallacies of the Public Goods Theory and the Production of Security," *The Journal of Libertarian Studies*, Vol. IX, No. 1, Winter, pp. 27-46; http://www.mises.org/journals/jls/9_1/9_1_2.pdf
- Hoppe, Hans-Hermann. 1992. "The Misesian Case Against Keynes." in *Dissent on Keynes, A Critical Appraisal of Economics*. Edited by Mark Skousen. pp.199-223. the Ludwig von Mises Institute, New York, Westport, Connecticut: Praeger <http://www.mises.org/etexts/hoppekeynes.pdf>
- Hoppe, Hans-Hermann. 1993. "A Four-Step Health-Care Solution." *The Free Market*. Vol. 11, No. 4, April; http://www.mises.org/freemarket_detail.asp?control=279
- Hoppe, Hans-Hermann. 2001. *Democracy - The God That Failed: The Economics and Politics of Monarchy, Democracy, and Natural Order*, Rutgers University, N.J.: Transaction Publishers
- Hoppe, Hans-Hermann. 2008. "Reflections on the Origin and the Stability of the State." June 23; <http://www.lewrockwell.com/hoppe/hoppe18.html>

- Hudson, Jerome. 2015. "Politico Uncovers Hillary Clinton's Staggering Wealth." September 28; <http://www.breitbart.com/big-government/2015/09/18/politico-uncovers-hillary-clintons-staggering-wealth/>
- Hummel, Jeffrey R. 1980. "War: Greatest Threat to Liberty," *Free Texas*, 9 (Summer), 12-13, 20; reprinted in edited form, in two parts, as "Debunking the Soviet Threat," *Against the Wall*, 9 (n. 4), 3-6, and "War: The Health of the State," *Against the Wall*, 10 (n. 8), 8-10.
- Hummel, Jeffrey. 1990. "National Goods vs. Public Goods: Defense, Disarmament and Free Riders," *The Review of Austrian Economics*, Vol. IV, pp. 88-122; http://www.mises.org/journals/rae/pdf/rae4_1_4.pdf
- Hutt, William H. 1979. *The Keynesian Episode* Indianapolis: LibertyPress.
- Jensen, Arthur R. 1981. *Straight Talk about Mental Tests*. New York: Free Press
- Johnson, Clint, Walter E. Block and Thomas Oxner. 1998. "Notes on Health Care Financing and Free Markets," *Journal of Accounting, Ethics and Public Policy*, Vol. 1, No. 3, Summer 1998, pp. 488-502.
- King, Seth. 2010. "Daily Anarchist Interviews Walter E. Block," September 9; <http://www.lewrockwell.com/block/block165.html>
- Kinsella, N. Stephan. 2001. "Against Intellectual Property," *Journal of Libertarian Studies*, Vol. 15, No. 2, Winter, pp. 1-53; http://www.mises.org/journals/jls/15_2/15_2_1.pdf
- Kinsella, Stephan. 2009. "The Irrelevance of the Impossibility of Anarcho-Libertarianism." August 20; <http://www.stephankinsella.com/2009/08/20/the-irrelevance-of-the-impossibility-of-anarcho-libertarianism/>
- Kinsella, N. Stephan. 2012. "Economic Freedom of the World Rankings and Intellectual Property: The United States' Bad Ranking is Even Worse Than Reported." <http://c4sif.org/2012/09/economic-freedom-of-the-world-indexes-and-intellectual-property-the-united-states-bad-ranking-is-even-worse-than-reported/>
- Klein, Peter G. 2013. "Without the State, Who Would Invent Tang?" March 1; <http://www.libertarianism.org/blog/six-reasons-libertarians-should-reject-non-aggression-principle?Nonaggression>
- Kolko, Gabriel. 1965. *Railroads and Regulation, 1877-1916*. Princeton: Princeton University Press
- Layden, William R. and Walter E. Block. 1996. "Health Security," *Nomos*, July, No. 47/48, pp. 38-45
- Levin, Michael. 1997. *Why Race Matters: Race Differences and What They Mean*, New York: Praeger.
- Levin, Michael. 1998. "Scrooge defended." December 14; <http://mises.org/daily/110>
- Lewin, Peter, and Steven Phelan. 1999. "Firms, Strategies, and Resources." *Quarterly Journal of Austrian Economics* 2, no. 2: 1-18.; http://mises.org/journals/qjae/pdf/qjae2_2_1.pdf
- Lincoln, Abraham. 1862. "Letter to Horace Greeley." August 22; <http://www.abrahamlincolnonline.org/lincoln/speeches/greeley.htm>
- Long, Roderick. 1995. "The Libertarian Case Against Intellectual Property Rights." *Formulations*. Vol. 3, No. 1, Autumn; <http://libertariannation.org/a/f3111.html>
- Long, Roderick. 2004. "Libertarian Anarchism: Responses to Ten Objections" <http://www.lewrockwell.com/long/long11.html>
- Lynn, Richard and Tatu Vanhanen. 2002. *IQ And The Wealth Of Nations*, New York, N.Y.: Praeger Publishers
- Lynn, Richard and Tatu Vanhanen. 2006. *IQ and Global Inequality*, Washington Summit Publishers
- Machan, Tibor R., 1983, "Social Contract as a Basis of Norms: A Critique," *The Journal of Libertarian Studies*, Vol. 7, No. 1, Spring, pp. 141-145; http://mises.org/journals/jls/7_1/7_1_8.pdf
- Machovec, Frank M. 1995. *Perfect Competition and the Transformation of Economics*. Routledge
- Malcolm, Norman. 1958. *Ludwig Wittgenstein: A Memoir*. Oxford: Oxford University Press

- Mann, Brian. 2013. "Black America's surprising 40-year support for the Drug War." August 12; <http://prisontime.org/2013/08/12/timeline-black-support-for-the-war-on-drugs/#sthash.8ZeWwwFK.dpuf>
- McKendrick, Neil, et al. 1983. *The Birth of a Consumer Society...Eighteenth-Century England*. Indiana University Press
- Menell, Peter S. 2007. "Intellectual Property and the Property Rights Movement." *Regulation*, Fall; <http://www.cato.org/pubs/regulation/regv30n3/v30n3-6.pdf>
- Menell, Peter S. 2007. "The Property Rights Movement's Embrace of Intellectual Property: True Love or Doomed Relationship?" *Ecology Law Quarterly*, Vol. 34.
- Mill, John Stuart. 1947 [1859]. *On Liberty*, Northbrook, IL: Ahm Publishing, <http://www.bartleby.com/130/>
- Mises, Ludwig von. [1949] 1998. *Human Action*, Scholars' Edition. Auburn: Mises Institute; <http://www.mises.org/humanaction/pdf/HumanActionScholars.pdf>;
- Molyneux, Stefan. 2008. "The Stateless Society: An Examination of Alternatives" <http://www.mail-archive.com/libertarianenterprise@yahoo.com/msg02056.html>
- Mukherjee, Jay and Walter E. Block. 2012. "Libertarians and the Catholic Church on Intellectual Property Laws." *Journal of Political Philosophy Las Torres de Lucca*. Issue No. 1, July-December, pp. 59-75; http://www.lastorresdelucca.org/index.php?option=com_k2&view=item&id=93:libertarios-y-la-iglesia-cat%C3%B3lica-en-las-leyes-de-propiedad-intelectual&Itemid=24&lang=en&Itemid=23
- Murphy, Robert P. 2005. "But Wouldn't Warlords Take Over?" July 7; <http://mises.org/story/1855>; <http://mises.org/library/wouldnt-warlords-take-over>
- Murphy, Robert P. 2008. "Filling the Holes in Krugman's Analysis" January 15; <http://mises.org/story/3291>
- Murray, Charles. 1984. *Losing Ground: American Social Policy from 1950 to 1980*, New York: Basic Books
- Murray, Charles. 2003. *Human Accomplishment: The Pursuit of Excellence in the Arts and Sciences, 800 B.C. to 1950*, New York, N.Y.: HarperCollins
- Murray, Charles. 2007. "Jewish Genius." April 1; <https://www.commentarymagazine.com/articles/jewish-genius/>
- Nardinelli, Clark. 1990. *Child Labor and the Industrial Revolution*. (Bloomington: Indiana University Press
- Navabi, Ash. 2015. "To Taylor, Love Freedom." June 23; <https://mises.ca/posts/blog/to-taylor-love-freedom/>
- Olson, Charles B. 1979. "Law in Anarchy." *Libertarian Forum*. Vol. XII, No. 6, November-December, p. 4; http://64.233.167.104/u/Mises?q=cache:gFT18_ZusWoj:www.mises.org/journals/lf/1979/1979_11-12.pdf+two+teeth+for+a+tooth&hl=en&ie=UTF-8
- Osterfeld, David. 1989. "Anarchism and the Public Goods Issue: Law, Courts and the Police," *The Journal of Libertarian Studies*, Vol. 9, No. 1, Winter, pp. 47-68; http://www.mises.org/journals/jls/9_1/9_1_3.pdf
- Outlaw, Irish. 2008. "Social contract my ass." March 15; <http://mises.org/community/blogs/irishoutlaw/archive/2008/03/15/social-contract-my-ass.aspx>
- Palmer, Tom. 1989. "Intellectual Property: A Non-Posnerian Law and Economics Approach" *Hamline Law Review*, Spring, Vol 12 No. 2.
- Pasour, Jr., E.C., 1981, "The Free Rider as a Basis for Government Intervention," *The Journal of Libertarian Studies*, Vol. V, No. 4, Fall, pp. 453-464; http://www.mises.org/journals/jls/5_4/5_4_6.pdf
- Regenstein, Lewis. 2012. "Why Are Jews So Smart?" April; <http://www.jewishmag.com/115mag/smartjews/smartjews.htm>
- Reisman, George. 2005. "Platonic Competition." December 20; <http://mises.org/daily/1988>

- Ritenour, Shawn R. 2000. "Postmodern Economics: The Return of Depression Economics by Paul Krugman," *The Quarterly Journal of Austrian Economics*, Vol. 3, No. 1: 79-83.
- Rosenberg, Nathan and L.E. Birdzell. 1987. *How the West Grew Rich: The Economic Transformation of the Industrial World*, New York, N.Y.: Basic Books
- Rostan, Jeremie, T.A. 2010. "It Is *Not* the Aggregate Demand, Stupid!" May 4; <http://mises.org/daily/4284>
- Rockwell, Jr., Llewellyn H. 2014. "What Exactly Is 'Racism'?" July 2; <http://www.lewrockwell.com/2014/07/lew-rockwell/what-exactly-is-racism/>
- Rothbard, Murray N. 1961. "Competition and the Economists." May; <http://mises.org/daily/5732/Competition-and-the-Economists>
- Rothbard, Murray N. 1963. *America's Great Depression*. Kansas City: Sheed Andrews. <http://www.mises.org/rothbard/agd.pdf>
- Rothbard, Murray N. 1971. "Freedom, Inequality, Primitivism and the Division of Labor." *Modern Age*, Summer, pp.226-245. Reprinted in Kenneth S. Templeton, Jr. (ed.), *The Politicization of Society*. Indianapolis: Liberty Press, 1979, pp. 83-126. Reprinted in *The Logic of Action Two: Applications and Criticism from the Austrian School*. Glos, UK: Edward Elgar Publishing Ltd., 1997, pp. 3-35; <http://mises.org/fipandol.asp>
- Rothbard, Murray N. 1973. *For a New Liberty*, Macmillan, New York; <http://mises.org/rothbard/newlibertywhole.asp>
- Rothbard, Murray N. 1977. "Do you hate the state?" *The Libertarian Forum*, Vol. 10, No. 7, July; <http://www.lewrockwell.com/rothbard/rothbard75.html>
- Rothbard, Murray N. 1992. "Keynes, the Man." M. Skousen (ed.), *Dissent on Keynes: A Critical Appraisal of Keynesian Economics*. New York, NY: Praeger Publishers, pp. 171-198
- Rothbard, Murray N. 1997. *The Logic of Action: Applications and Criticism from the Austrian School*, Vol. II, Cheltenham, UK: Edward Elgar
- Rothbard, Murray N. 1998 [1982]. *The Ethics of Liberty*, New York: New York University Press. <http://www.mises.org/rothbard/ethics/ethics.asp>
- Rushton, J. Philippe. 1988. "The reality of racial differences: A rejoinder with new evidence," *Personality and Individual Differences*, 9, pp. 1035-1040.
- Rushton, J. Philippe. 1996. "Brain size and cognitive ability: Correlations with age, sex, social class and race," *Psychonomic Bulletin and Review*, 3 (1), pp. 21-36
- Rushton, J. Philippe, and Osborne, R.T. 1995. "Genetic and environmental contributions to cranial capacity estimated in Black and White adolescents." *Intelligence*, 20, pp. 1-13
- Sailer, Steve. 2011. "The Mismeasure of Science." June 10; <http://www.vdare.com/posts/the-mismeasure-of-science>
- Salerno, Joseph. 2011. "Perfect Competition: 'Gobble'-degook," November 24; <http://blog.mises.org/19459/perfect-competition-gobble-degook/>
- Salin, Pascal. 1996. "Cartels as Efficient Productive Structures." *The Review of Austrian Economics*. Vol. 9, No. 2, pp. 29-42; http://www.mises.org/journals/rae/pdf/rae9_2_2.pdf
- Sanmartin, Claudia, François Gendron, Jean-Marie Berthelot, and Kellie Murphy. 2004. *Access to Health Care Services in Canada, 2003*. Catalogue No. 82-575-XIE.
- Schmidtz, David. 1991. *The Limits of Government: An Essay on the Public Goods Argument*, Boulder Co: Westview Press
- Scott, James C. 2009. *The Art of Not Being Governed: An Anarchist History of Upland Southeast Asia*, Yale University Press, New Haven & London.
- Sechrest, Larry. 2003. "Privateering and National Defense: Naval Warfare for Private Profit", pages 239-74, *The Myth of National Defense: Essays on the Theory and History of Security Production*, edited by Hans-Hermann Hoppe, published by the Ludwig von Mises Institute, Auburn, Alabama, 2003.
- Sechrest, Larry. 2004A. "Public Goods and Private Solutions in Maritime History." *The Quarterly Journal of Austrian Economics*. Vol. 7, No. 2. Summer, 3-27.

- http://www.mises.org/journals/qjae/pdf/qjae7_2_1.pdf;
https://dev.mises.org/journals/qjae/pdf/qjae7_2_1.pdf
- Sechrest, Larry. 2004B. "Private Provision of Public Goods: Theoretical Issues and Some Examples from Maritime History," *ICFAI Journal of Public Finance*, August, Vol. II, No. 3, 45- 73;
<http://www.mises.org/journals/scholar/Sechrest7.pdf>
- Sechrest, Larry. 2007. "Privately Funded and Built U.S. Warships in the Quasi-War of 1797-1801", *The Independent Review*, Summer, Vol. 12, No. 1: 101-113.
- Seitz-Ward, Alex. 2014. "Just how wealthy is Hillary Clinton? If elected president, the former secretary of State would be richer than close to four out of five of her predecessors." June 30;
<http://www.nationaljournal.com/s/72471/just-how-wealthy-is-hillary-clinton>
- Seligman, Daniel. 1992. *A Question of Intelligence, The IQ Debate in America*. New York: Citadel, Carol Press
- Serwer, Adam. 2011. "Crack Panic And The Drug War." June 21; <http://prospect.org/article/crack-panic-and-drug-war>
- Shaffer, Butler. 2012. 2004. "The Case for Ebenezer." December 13;
<http://lewrockwell.com/shaffer/shaffer93.html>
- Shafer, Jack. 2007. "The Honest Graft of Lady Bird Johnson; How she and Lyndon came by their millions." July 16;
http://www.slate.com/articles/news_and_politics/press_box/2007/07/the_honest_graft_of_lady_bird_johnson.html
- Shockley, William. 1992. *Shockley on Eugenics and Race: The Application of Science to the Solution of Human Problems* Scott-Townsend
- Skousen, Mark. 1992. *Dissent on Keynes: A Critical Appraisal of Keynesian Economics*. New York: Praeger; <http://mises.org/books/dissent.pdf>
- Sowell, Thomas. 2015A. "The Inconvenient Truth about Ghetto Communities' Social Breakdown." May 5;
<http://www.nationalreview.com/article/417899/it-isnt-legacy-slavery-caused-social-breakdown-ghetto-communities-thomas-sowell>
- Sowell, Thomas. 2015B. "A Legacy of Cliches." July 7;
<http://townhall.com/columnists/thomassowell/2015/07/07/a-legacy-of-cliches-n2021930/page/full>
- Sowell, Thomas. 2015C. "Charlatans and Sheep." October 6;
<https://www.lewrockwell.com/2015/10/thomas-sowell/the-legacy-of-slavery-2/>
- Sowell, Thomas. 2015D. "The 'Legacy of Slavery' Is an Excuse for Social Degeneration." October 7;
<http://www.nationalreview.com/article/425155/legacy-slavery-excuse-social-degeneration-thomas-sowell>
- Spooner, Lysander. 1966[1870]. *No Treason: The Constitution of No Authority and A Letter to Thomas F. Bayard*, Larkspur, Colorado: Rampart College; <http://jim.com/treason.htm>
- Steyn, Mark. 2014. *The Undocumented Mark Steyn*. Regnery Publishing
- Stringham, Edward, ed. 2007. *Anarchy and the Law: The Political Economy of Choice*, Somerset, NJ: Transaction Publishers.
- Tannehill, Morris and Linda Tannehill. [1970] 1984. *The Market for Liberty*, New York: Laissez Faire Books; <http://www.lewrockwell.com/orig11/tannehill1.html>
- Taylor, Arthur J. 1975. *The Standards of Living in Great Britain*. Methuen
- Taylor, Jared, ed. 1998. *The Real American Dilemma: Race, Immigration, and the Future of America*. New Century Books
- Taylor, Jared. 2014. *Face to Face with Race*. New Century Books
- Terrell, Timothy D. 2003. "Socialized Medicine in America." *The Free Market*. Vol. 23, No. 11, November;
http://www.mises.org/freemarket_detail.asp?control=458&sortorder=articledate

- Thernstrom, Stephan and Abigail Thernstrom. 1997. *America in Black and White*. New York: Simon and Schuster
- Tinsley, Patrick. 1998-1999. "With Liberty and Justice for All: A Case for Private Police," *Journal of Libertarian Studies*, Vol. 14, No. 1, Winter, pp. 95-100; http://www.mises.org/journals/jls/14_1/14_1_5.pdf
- Vance, Laurence M. 2010. "Same Empire, Different Emperor." February 11; <http://www.lewrockwell.com/vance/vance195.html>
- Venugopal, Arun 2013A. "Black Leaders Once Championed the Strict Drug Laws They Now Seek to Dismantle." August 15; <http://www.wnyc.org/story/312823-black-leaders-once-championed-strict-drug-laws-they-now-see-dismantle/>
- Venugopal, Arun 2013B. "The Shift in Black Views of the War on Drugs." August 16; <http://www.npr.org/sections/codeswitch/2013/08/16/212620886/the-shift-in-black-views-of-the-war-on-drugs>
- Ward, Victor J. 2014. "Are Rothbard, Rockwell and Hoppe Racists? The Charges Examined." May, 16; http://www.economicpolicyjournal.com/2014/05/are-rothbard-rockwell-and-hoppe-racists.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+economicpolicyjournal%2FKpwH+%28EconomicPolicyJournal.com%29
- Williams, Walter. 2001. "The Legacy of Slavery Hustle." July 16; <http://capitalismmagazine.com/2001/07/the-legacy-of-slavery-hustle/>
- Williams, Walter. 2015A. "The True Black Tragedy." May 20; <http://townhall.com/columnists/walterewilliams/2015/05/20/the-true-black-tragedy-n2000459/page/full>
- Williams, Walter. 2015B. "Wasn't Always This Way." September 8; <https://www.lewrockwell.com/2015/09/walter-e-williams/a-legacy-of-slavery/>
- Woolridge, William C. 1970. *Uncle Sam the Monopoly Man*, New Rochelle, N.Y.: Arlington House

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ADOPTION OF NON-PROGRAMMED DECISIONS IN THE MARKET UNCERTAINTY IN THE REPUBLIC OF MACEDONIA

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Abstract

The decision we consider as an act of self-determination of the subject in terms of a result, to get another that will fit. The decision-maker may be an individual or group of people. In the working process of each company, every day is a need manager for an adoption of various decisions, whose implementation is traced direction of survival and further development of the company. Such decisions are made daily by the various levels of management teams in the firm and all have a proper place and importance in the process of operation of the company. Deciding how the process involves the activity of the decision maker or manager who needs to make it, and that applies reflects the overall operation of the enterprise. There are various types of decisions, some significant, some did not so significant, decisions that are taken daily or decisions that are made are rarely or only once. The division of decisions based on different grounds is more layered and therefore, there are many criteria for division and branching species of decisions. According to this division, programmed decisions are those features that are taken daily, often systematic and such decisions are relating to the daily operations of the company. Non-programmed decisions are commonly made in situations that are unforeseen, sudden and in a situation which brings major threats that caused a specific new situation. The significance of the non-programmable and their decision-making by managers actually is one of the most important components in the operation of a successful business, thus, the need for greater attention towards such decisions is becoming more important, especially in a free and open economic market. Such decisions are usually given when the decision maker does not have enough information to be able to rationally anticipate certain alternatives and options, which in turn carry a certain risk in relation to the desired result, which should be achieved by adopting them.

Keywords: decisions, non-programmed decisions, manager, enterprise, strategic management

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1 INTRODUCTION

Non-programmed decisions are commonly made in situations that are unforeseen, sudden and in a situation which brings major threats that caused a specific new situation. The significance of the non-

programmable decisions and their adoption by the managers is, in fact, one of the most important components in the operation of a successful enterprise, thus, the need for greater attention towards such decisions is becoming more important, especially in a free and open economic market. Such decisions are usually taken when the managers do not have enough information to be able to rationally predict certain alternatives and options that still carry a certain risk in relation to the desired result, which should be achieved by adopting them.

Problems arising in a condition of uncertainty and strong competition in the market that have caused the adoption of non-programmed decision presents a problematic framework of this research. The subject of this research is non-programmable decision-making by managers of the companies, together with all the possibilities and problems arising in the process. The main objective of the research will be to spot the causes that lead to the need of adopting non-programmable decisions, detect hazards that cause the adoption of non-programmed decision because the non-programmable decisions often have strategic importance for the company.

The essence of the decision making actually means to determine on the adequate way the plan to improve the procedures of work, exploit and develop all available means and resources to manage risk and to define a strategy in the operation of the company. Because from these reasons decision-making is a complex process that continuously takes place in the frame of the working of an organization.

Considering the improvement of the procedures in organization operation up until the definition and creation of the strategy of the organization, in order to be better, more efficient and provide better results.

The nature of the business decision-making is that it complicates the procedures relating to the collection and use of information and linking them with the knowledge. Therefore, it is very important to identify and define the right set of information in order to bring the appropriate business decision that affects the operation of the entire organization.

Managers throughout its operations are constantly faced with the need to make certain decisions, which are often with decisive influence on the future of the organization, make decisions that shape the outcome of business that are managing, decisions that deeply affect the organizational effectiveness and certainly have a great impact on the efficiency of the realization of the goals the company has set.

Making decisions is a constant and continuous process in which managers identify problems and opportunities in the performance of the functions they perform, including the effort before and after the selection of the solution. Making decision is constant and continuous process in which the manager identifies problems and opportunities in the performance of his functions. The manager has to understand above all the basic methods of applying and implementing of the made decisions.

Without such an understanding the made decisions will be incompetent. An organization which in its operation makes a profit, i.e. an organization which is effective and efficient led by the manager has the ability to make profits on the basis of correct made decisions of managers.

Decisions adopted by the manager in the company that he manages, and refer to the organizational structure of the company and the business strategy necessary to establish in the creation of the same and are by nature unprogrammed, which are made with the utmost attention and analysis all alternatives that are known to the manager, which will reflect the performance of the company.

Managers are faced with this challenge in performing their managerial functions when planning specific goals, directions and allocation of organizational resources when organizing certain resources and create an organizational structure, and in controlling of the individual employees, departments, units, plants or the whole organization. The decision-making process consists of collecting of all available data and information, understanding of the problem and correct remark on it. "In view of the functions and operations performed by the managers, every manager should have the ability to decide and no matter what job or management level he is. The ability to decide is expressed and used permanently." (Jovanovski, 2008, p. 497)

2 STAGES OF DECISION-MAKING

There are six rational steps that effective managers need to follow to make the right and good decision with which they will achieve the organizational goals.

2.1 Recognition of the need for decision making

The first step is defining the problem which is incurred and the need to solve it, because if there is no problem, there is no need for decision making or problem solving, and in this particular case the problem is the organizational structure of the company that is founded by the manager. With the moment of the definition of the condition that requires decision-making, the process of decision making begins, which requires a degree of commitment and attention of the manager and his preparation for the next step of deciding.

2.2 Creating alternatives

The second step of the decision-making process is the shaping, i.e. the creation of alternative solutions, developing and reviewing of all opportunities to bring one that is most appropriate and most proper. Once a situation is recognized and defined, the second step is to identify the effective alternative action. It is useful if there are an obvious standard developed innovative and creative alternatives. Usually, the more important the decision, the more attention is directed to the development of alternatives. (Griffin, 2010, p. 93)

2.3 Assessment and evaluation of alternatives

The third step or phase of making decision is the evaluation and assessment of the alternatives that the manager has developed, it is necessary to assess the strengths and weaknesses of each alternative, emphasizing the chances or dangers of every individual, particularly with attention to the compliance of legal norms, ethics, economic feasibility and practicality in the operation of each company.

The evaluation of alternatives established by the manager in the process of the decision-making for the setting of the organizational structure has wider dimensions because it is necessary to examine in details, with particular caution each alternative, because each one offers quite different possibilities and directions of

development of the company. In each case, the manager at this stage of the decision making, considering various alternatives before determining on any of them, he needs to be familiar in details with each of them and the opportunities and threats offered by each of them.

2.4 Selection of alternative

The next step is selecting one of the possible alternatives and making the decision which should be based as much as possible on a complete information, which is necessary to get from all associates and team members, because how much the information is complete, there is the possibility of adopting of an effective decision. The challenge for managers who have made the decision is huge and the uncertainty of the development requires extensive knowledge of conceptual abilities and skills in decision-making process.

2.5 Implementation of the chosen alternative

The next step of the process of decision making is the implementation of the selected alternative, often accompanied by numerous supporting decisions related to it. The easier circumstance that the manager can have is from his family environment if previously his family managed that business and the implementation, in this case, will be based on the inherited knowledge that his family members have gained. In such cases, the manager sets a fixed capital of knowledge that certainly positively influences his decision-making and creation and development of the organizational structure of the company.

2.6 Monitoring and evaluating the results of the made decision

The last step of the decision-making process is monitoring and evaluation of the results of the made decision, so many managers conduct a retrospective analysis in order to ensure that the selected alternative is corresponding to the initial intention.

Manager with its decisions is strategically is affecting the economic position of the company on the market and its survival. "The adoption of decisions is a segment which appears in the performance of all management functions, and for that reason can be freely said that one of the most

important skills of any manager is the ability to make the right, thoughtful decisions. The actual decision-making is the act of selecting one of the several alternatives, however, decision-making process is much more”

The way that always managers are always trying to find to make the right decisions that will improve the organizational performance should be based on a few necessary skills that every successful manager arise required to possess, such as technical skills, social skills, conceptual skills and skills in shaping.

The process of organizing the work of a company and the creation of market success of its operations, its organizational structure, drastically depends on the ability of the manager who manages that company, whose main business is to manage the company, properly organize employees to lead to the achievement of the desired objectives.

In terms of the factors that affect the decision-making of managers, there are two models, classical model, and administrative model:

1. The classic model is developed on the basis of logical and rational acting of the manager in the process of decision making and based on perception, action in conditions of security and full knowledge of the alternatives, where potential problems are accurately identified and formulated, and it starts from the assumption how managers make decisions. The classical model, is perceptive, meaning that determines how should decisions be taken. (Garet & George, 2008, p. 256) The negative side of this method is that it starts from the assumption that the manager has all the information necessary to make the necessary decision.
2. The administrative model again emphasizing that the manager in the decision-making process cannot have all information necessary for making a correct and appropriate decision, starts from the assumption that managers in the real world do not have unlimited access to all necessary information, and therefore decision-making is always a process that has limited rationality and incomplete information and therefore the managers are not aware of opportunities and problems in the environment. The

administrative model describes how managers make decisions, not how they should act. Every decision is a judgment and choice between alternatives. Rarity is the choice between right and wrong. At best it is a choice between right soon, and “probably wrong” but more often optional between two courses of action from which none has proven to be straighter than the other. (Drucker P. , 2005)

Effective managers know when the decision must be based on principles and in which cases they must be taken pragmatically, based on current circumstances. They know that the toughest choice is a compromise and therefore they require to learn the difference between the necessary compromises and unnecessary. They also know that most of the time taken is not the decision itself, but is the embodiment of its life.” (Drucker P. F., 2006, p. 44) Like all classifications, also, the division of the decisions depends on the viewpoint.

- a. One of the basic classification of decisions is the division of strategic, tactical and operational decisions. Strategic decisions are made to achieve the key and large effects, tactical decisions made for smaller results, and operating decisions are made in the implementation of the operational plan of production.
- b. Because the decisions are governing the functioning of the company, there is a classification based on this criterion of regulation decisions that are governing the system setup and corrective decisions that intervene to correct the deviations and functioning.
- c. According to the decision makers, there is a classification of individual, collegial and hierarchic decisions
- d. Another classification is a division of decisions against the frequency of their adoption, i.e. they are divided of programmed and unprogrammed. “The decisions can be also divided by its frequency, whether regularly recurring or rarely or the decision is made only once” (Drucker P. F., 2006, p. 225). The division of programmed and unprogrammed decisions, which are based on the structure of the company, frequency and systematic approach to decision-making in the

enterprise, whether the decisions are repeated regularly or are taken once or very infrequently.

Both types of decisions should certainly be taken by the managers of respective category and rank, making the decision appropriate to the purpose for which it was made.

Programmed decisions are often made in companies where managers are steeped in job functions that they perform, have vast experience in situations and their outcomes. When we are talking about the decisions of a manager that for a long time manages a specific company, his decisions are so often applied when it comes to everyday tasks, which can be freely said that the one's rules of behavior in the company, and such decisions, are often codified in regulations or codices. These rules may be written (with a written decision) or unwritten, that each employee respects. In everyday decision-making, there are also the decisions that apply to the stakeholders against whom there are long-lasting business relationships. Such programmed decisions are often codified in rulebooks.

3 NON-PROGRAMMED DECISIONS

These decisions are made in new situations and new possibilities that do not occur daily and often. Intuition and experience are key factors in making the non-programmable. Most decisions that are brought by the top management, which include strategy and design of the organization are actually unprogrammed. Unprogrammed are also the decisions regarding facilities, new products, labor contracts and legal issues. (Griffin, 2010, p. 88)

Non-programmed decisions usually are made in start-up companies, where except the intuition and experience of the manager, also the vision that he has created and in which direction will the company move towards its development and direction is needed. Also, such decisions are made in situations of major changes related to the survival of the company and in the conditions of risk and problem solving. The majority of people spend a lot of time and energy trying to take control over what happens to them in this uncertain life. We have learned that we have to go looking for the false appearance of security, primarily with the appropriation of material goods

and resources that we can get. (Livingston, 2004, p. 45)

However, at the top level, the decisions which are taken vary from lower management levels and usually they are unprogrammed which have strategic importance to the company. The structure of the top management decision is different, prevailing are decisions made under conditions of uncertainty, and a presence of higher risk, collecting a variety of data and indicators based on facts is needed.

There are various approaches to the adoption of the non-programmable decisions that can not be excluded and often these approaches are complementary:

- With the collecting of facts necessary to make the non-programmed decision, it decided on the basis of the same, and therefore it is particularly necessary to pay much attention to the facts on which the decision is because these must be relevant and reasonable. Non-programmed decisions are those dealing with unusual and particular problems. If the problem is not completely removed in order to support the policy or if it is so important that deserves a review, then it must be solved by non-programmable decision” (KraleV, 2009, p. 70)
- The making of the nonprogrammable decisions also needs to be based on experience, acquired knowledge, surviving situations and formed opinions, which largely help in the efficient and effective making of a decision. If the overall preparation of the decision, is made with specific methods, clearly and precisely definition of the problem which should be solved with the implementation of the non-programmed decision, is needed and the objectives to will be achieved by it, and then select the solution that has the greatest value according to the specified criteria and on the best way achieve the goal that it is set.
- Non-programmed decisions are often made based on immediate observation, the ability to react immediately and instinctive knowledge. This intuition assumes gained knowledge from life, which the manager obtains during his experience.

This should certainly be de-minimized in the process of decision making because it can be fatal for the overall operation of the company insofar as based only on it, but numerous cases showed that the non-programmable decisions which are based on instinct and intuition can be very good in the future.

- Nonprogramme decisions due to the need of adopting a quality decision, usually are made by a number of people who have more insights and thoughts on the issues that need to be decided. A collective decision is made based on the possibility of a deeper knowledge of exhaustion of ideas and with the same of observation of several aspects. This collective decision making of non-programmed decision can sometimes be negative towards the solving of the problem because the responsibility is collective and most individuals do not give their full contribution to the exhaustion of all possibilities because they think that their opinion will be blended into the group.
- Failure to act or inaction and failure to the adoption of the non-programmed decision could be selected as one of the alternatives in making it, and it is also a decision. Nothing to be done is also a decision like to do something concrete. Of this, however, only a small number of people are aware. They think that they will choose an improper decision if nothing is done. The notion that every problem, every difficulty requires some action may be a superstition" (Drucker P. , 1961, p. 403)

Managers in Macedonia are constantly faced with the need to make certain decisions during their working, which often has a decisive influence on the future of the organization. They make decisions that create the outcome of business they manage, decisions that deeply affect the organizational effectiveness and certainly have a great impact on the effectiveness of achieving the objectives that the company has set. Decision making is one of the most important processes in the management of any organization or company by the managers, in which case the decisions should be taken with extreme care. A manager's job is extremely difficult to describe. (Quinn, 2010, p. 12)

The survey was conducted on companies in Macedonia, from which each has a different number of employees, different structure and governing bodies and different size of capital, i.e. small, medium and large companies, according to the classification of the companies established by the legislation of the Republic of Macedonia. The survey was conducted by analyzing and processing data received from the answers given. In small companies owned by one person, which also manages the businesses, with a small capital turnover, and with a small number of employees, the management bodies are often melted. The second group of companies is middle size companies, taking into consideration of all criteria for determining the structure of the companies established by legislation in Macedonia. These companies already have developed governing bodies consisted of several members, i.e. these companies have formed a management team. In the third group, according to the classification of firms in Macedonia, there are large companies, where taking the non-programmed decisions is completely different from the previous two groups. These companies developed networks of collective bodies such as supervisory board, management board, committees, etc. making the process of decision making different from the process of decision-making in small or medium-sized firms.

This research has achieved certain results relating to the adoption of the non-programmable decisions in Macedonia.

During the operating of each enterprise, different decisions are made daily that are influenced by the daily activities of the same. Non-programmed decisions are made in all businesses, whether small, medium or large. Such decisions are made in conditions of great uncertainty and strong competition in the market. In the small enterprises, the non-programmable autonomous decisions are adopted by the founder and manager of the company, who at the same time is leading and managing the company by himself. In medium and large enterprises company, the non-programmable decisions, managers often do not make by themselves, but in consultation with other managers, because in these enterprises the decisions concerning the strategy of the company are not in the hands of one manager. In terms of consultation with other managers when making

the non-programmed decision, managers of small businesses rarely consult with other managers, while the managers in medium and large enterprises however always consult with other managers.

This is for the reason that the non-programmable decisions have strategic importance for the enterprise, and themselves seek to be implemented.

This is the result of the fact that in medium and large enterprises a higher level of organization of production is developed, and thus more people are involved in the managing of the company. The collection of information is carried out by managers of all categories of enterprises, small, medium or large. This collection of information is carried out to make a justified non-programmable decision. The analysis of the operation of the competitors is performed by all managers, no matter if a non-programmable decision is made in the small, medium or large enterprise. The market competition causes endangering the operation of the enterprise, which are the main reasons that managers give great importance to the work of other competing companies. When it comes to

close monitoring of the opportunities for the effective non-programmable decision, the managers of small and medium enterprises give more importance to the possibilities while the managers of large companies sometimes follow opportunities. This is because small and medium enterprises are aimed at rapid development and increasing production capacity while large enterprises have already achieved a certainly rounded development process and pay more attention to the maintenance of that already established production process. Business risk is always present in all businesses, so each non-programmable decision is followed by a certain risk of failure. In terms of risk when making nonprogrammable decision, all managers at small, medium or large enterprises make a risk analysis of the adoption of the non-programmed decision. The adoption of the decision is followed by its implementation, based on which the managers of small, medium and large companies insist on full implementation of the adopted non-programmable decision. This is because the non-programmable decisions have strategic importance for the company and by it selves seek to be implemented.

4 WORKS CITED

- Drucker, P. (1961). *Praksa rukovodjenja*. Zagreb: Privreda.
- Drucker, P. (2005). *Most important about management*. Zagreb: MEP Consult.
- Drucker, P. F. (2006). *The Effective Executive: The Definitive Guide to Getting the Right Things Done*. NY: HarperBusiness Essentials.
- Drucker, P. F. (2006). *The practice o management*. New York: Harper & Brothers .
- Garet, R. J., & George, J. M. (2008). *Contemporary management*. Skopje: Global Communications.
- Griffin, R. B. (2010). *Basics of management*. Kochani: Genesis.
- Jovanovski, T. (2008). *Economics for managers*. Skopje: Euro Mak Kompany .
- Krlev, T. (2009). *Basics of management*. Skopje: CIM Centre for international management.
- Livingston, G. (2004). *Too Soon Old, Too Late Smart*. MJF Books.
- Quinn, S. (2010). *Management basics 1st edition*. bookboon.com page.12. Retrieved from <http://bookboon.com/en/management-basics-ebook>

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CRITICAL INFRASTRUCTURE SAFETY AND PROTECTION IN SLOVAK REPUBLIC – RESEARCH AND EDUCATION

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Abstract

The problem of security and the critical infrastructure protection in the European area is becoming more topical which can be proved by the current security situation in the world. Our society must react to the current security situation and new migration-related issues. One of the challenges we are facing is fostering security research and education in the field of security management in the most important areas of human life. The aim of this paper is to present the generally defined basic terms and aspects of understanding the problem of security and protection of critical infrastructure. Our task is to define the need of education in the field of management of critical infrastructure security. The paper also presents the purpose and contents of the new study programme at the Faculty of Security Engineering of the University of Žilina and its graduate profile. There are also stated some topical problems related to implementing this study programme.

Keywords: critical infrastructure, sector, energy, transport, security, protection, new study programme

1 INTRODUCTION

The University of Žilina (hereinafter UNIZA) is a higher education and scientific research institution with wide scope of activities. The latest comprehensive accreditation identified as one of

its weaknesses the fragmentation of research and educational capacities and activities in some core fields of study, e.g. management, transport services. On the basis of its recommendations the accreditation authorities of the Faculty of Security Engineering of the University of Žilina (hereinafter FBI UNIZA) adopted a decision that the so far implemented programme „Transport in crisis situations “ would gradually finish and the faculty

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would apply for accreditation of the new study programme in the research field of security services. In October 2015 the Accreditation Commission accredited the new study programme „*Security and protection of critical infrastructure*“. The purpose of this paper is to state the basic terms in the field of security of systems and elements of critical infrastructure and its protection. We also wish to justify the need of education in fields of security management and protection of important infrastructure networks. An important part also is the brief presentation of the new study programme and present challenges for its future development and contribution to the society.

2 THEORETICAL FOUNDATIONS OF SECURITY MANAGEMENT OF CRITICAL INFRASTRUCTURE

New security threats, political and economical changes in the world as well as dynamic development of technologies are constantly bringing new security risks. Therefore it is necessary to constantly look for new ways how to protect (i.e. to secure the desired level of security) of people, property or a certain area as such. The issues of security and protection of so called critical infrastructure (hereinafter CI) should be perceived and solved in a complex way, especially due to the interconnectedness of individual important infrastructures. The efforts of the European Union (hereinafter EU) in this strategically important area aim to support cooperation among individual countries and create a consistent approach to the crucial problems of security management of important European infrastructure. The Slovak Republic (hereinafter SR) several years ago adopted legal standards (Law 45/2011) and measures leading to fostering the importance of CI problems and securing the desired level of its security and protection.

2.1 What is critical infrastructure

It is a system that can be divided into fields and elements. The elements of critical infrastructure are assets, facilities, services and information systems whose disruption or destruction would have serious adverse consequences for performing economic and social functions of the

state. The purpose of CI protection is to maintain the quality of human life from the point of life, health, security and property protection as well as environment protection.

In other words, critical infrastructure is the part of national infrastructure, so important that its destruction under the influence of risk factors can cause a debilitating effect on society. The critical infrastructure is a part of the state security system. To understand all aspects of critical infrastructure areas it is necessary to be aware of the list of so called **critical infrastructure sectors**.

In most developed countries the main CI sectors are considered – **power engineering** (nuclear power generation, electricity transmission, transportation and distribution of natural gas, transportation and processing of oil, heat generation and extraction of important raw materials), **transport** (road, railway, air and water), **information and communication technologies** (networks, data centres, controlling and information systems, carriers of important information, etc.). Among other important areas we can find *water management, food security, financial sector, medical facilities* and others.

2.2 Vulnerability of systems and services of critical infrastructure

How can the CI subsystems and elements be disrupted, destroyed or temporarily/permanently disabled? The European Council Directive 2008/114/ES (European Directive 2008/111/ES) defined the term **European critical infrastructure** (hereinafter ECI). To identify its elements for efficient managing of ECI security, it is necessary to define the types of attacks as well as the probability estimate of occurrence and their expected consequences.

- **Anthropogenic influences** – *negative phenomena caused by human activity (e.g. terrorist attacks, hacker attacks, industrial accidents, human errors, etc.*
- **Natural influences** – *negative phenomena caused by natural processes (e.g. tectonic effects, meteorological risks related to the effects of extreme weather, risks related to slope movements, etc.*

One of the most probable anthropogenic threats is a direct targeted armed attack carried out by

armed terrorist groups, bomb attack – usually carried out by an individual or a small group. Another possibility is a cyber attack, designed to destroy or control computer systems. An important risk is the so called information operations – attacks with the purpose to gain or abuse information, to influence processes based on information (e.g. to influence the system in a way that it appears fully functional but in fact it works with manipulated data). The authors were dealing with the problem of protection against the above mentioned types of attacks and related security risks within the APVV project solution no. 0471-10 “*Critical Infrastructure Protection in Sector Transportation*” (OKI 2010)

There are altogether 14 most probable types of natural threats – effects of extreme weather in European conditions. The most important meteorological effects and their consequences in the conditions of central Europe are: extreme precipitation, windstorms, river floods, heavy lighting storms, abundant snowfall, snow storms, freezing rain, extreme temperatures, forest fires. The authors of this paper are dealing with the problem of security risks related to negative effects of extreme meteorological conditions on functioning the CI systems and services within the experimental project solution FP7 – RAIN „*Risk Analysis of Infrastructure Networks in response to extreme weather*“ (RAIN, 2014).

In the conditions of the Slovak Republic there has not been created a generally accepted methodology for objective classification of individual infrastructure elements (especially the power generating, transportation and information-communication infrastructures) into the set of potential CI elements. The authors are currently involved in this problem solution within the VEGA project no. 1/0240/15 “*Process model of critical infrastructure safety and protection in the transport sector*“ (VEGA 2015).

Eventually, there is no precisely defined methodology for evaluating the criticality of important elements of infrastructure and their sensitivity for failure of other important infrastructures. The authors are dealing with this problem within the project that is being solved in the Czech republic under the title „*RESILIENCE*

2015 Dynamic Resilience of Interrelated Critical Infrastructure Subsystems“ (RESILIENCE, 2015).

The term **protection of critical infrastructure** can be understood as (Novak 2011) a set of measures that have to be provided by the owner or building operator and have to be secured by the respective integrated rescue system units in order to ensure the desired functionality and performance of important infrastructure. The objective of the protection system of critical infrastructure should principally be minimizing the risk of eliminating a function, activity or service. (Seidl, & Simak 2012).

Considering the information stated above, it is possible to define the aims of CI protection as follows:

- to prevent intrusion into the building and prevent activities of unauthorized persons or groups,
- to decrease or prevent the security risk occurrence (terrorist attack, sabotage, extreme weather effects, etc.),
- to ensure operability of technology and usability of supplies,
- to secure operational safety and related security of residence of population or military forces in the vicinity of buildings. Adapted according to (Sventekova, Cicmancova, 2013).

Due to the reasons stated above, at FBI UNIZA a new programme „Security and protection of critical infrastructure “ was accredited. Its main focus is security in the sectors of power engineering and transport. It also contains courses focusing on other sectors of critical infrastructure – especially information and communication technologies, water supply, medical infrastructure (Simak, 2012).

3 CHARACTERISTICS OF THE STUDY PROGRAMME AT THE FACULTY OF SECURITY ENGINEERING

One of the fields of tertiary education is the field of security and civil protection and crisis management. It is necessary to realize that civil protection is based on the principle of ensuring the security of an individual, community and society (Titko, Peterkova, Holla, 2013). In 2015 the

Accreditation Commission confirmed the FBI UNIZA accreditation for bachelor and engineer degree programmes that focus on the field of security and protection of critical infrastructure. The study programme „Security and protection of critical infrastructure“ is:

- unique in central Europe,
- multidisciplinary oriented, focusing on various types of infrastructure networks,
- based on the needs of practice,
- supported by the Slovak Ministry of Interior, Ministry of Transport, Construction and Regional Development and the Ministry of Economy,
- is primarily focused on the main ECI fields – energy a transport.

3.1 Structure and content of the curriculum

To demonstrate the contents of the study programme we only provide a selection of the most important courses for our full-time bachelor’s

degree students and full-time engineer’s degree students in the study program „Security and protection of critical infrastructure“. Among the most important courses in the bachelor studies we rank:

- **general courses** e.g. Mathematics I. and II., Engineering geometry, Physics, Economics, Informatics, Logistics, Occupational safety and health, Basic mechanics I and II, Technical drawing, Management, Operational analysis, Managerial Statistics and others.
- **profile subjects**, e.g. Energy infrastructure, Transport infrastructure, Nuclear, chemical and biological protection, Civil protection, Production equipment and technologies in power engineering, Risk management, Crisis management, Topography, Cartography and geographic information systems, Transport equipment and technologies, Protection of critical infrastruture objects in the transport sector, Dangerous substances and articles, Protection of people and property and others.

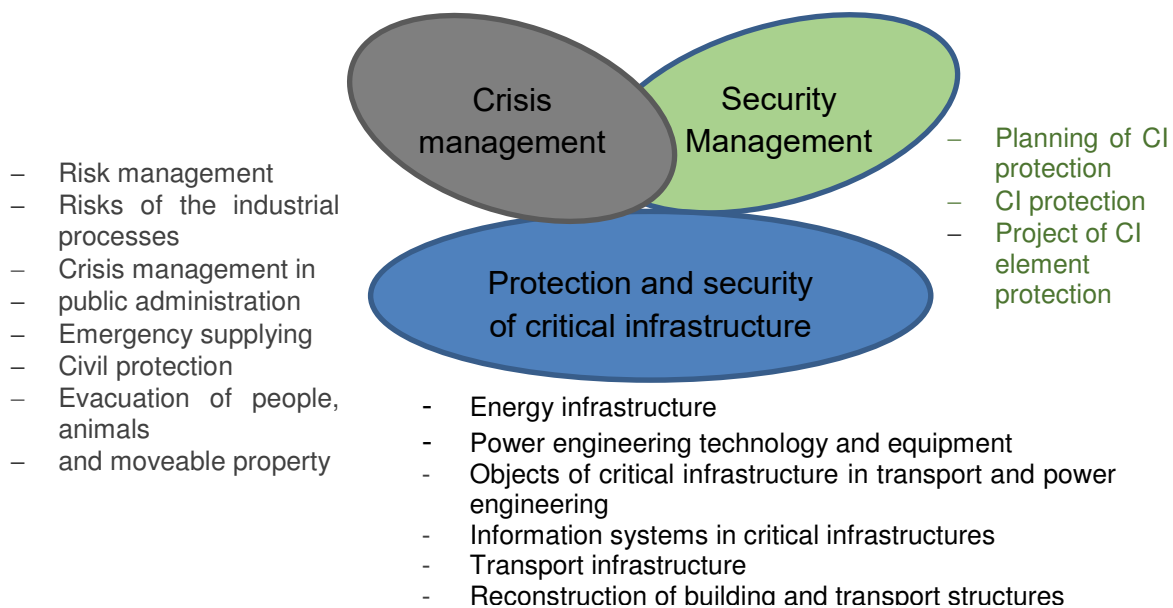


Fig. 1 Multidisciplinary character of the study programme and profile courses (Authors, 2016)

Among the most important courses in the engineer studies we rank:

- **general courses**, e.g. Stochastic Methods of Operational Analysis, Management Information Systems, Risks of industrial processes, Managerial Methods and Techniques, Forecasting and planning and others.

- **profile subjects**, e.g. Transport in crisis situations, Crisis management, Building and transport structures, Reconstruction of building structures, Planning of critical infrastructure protection, Controlling and information systems of critical infrastructure, Risk management of critical infrastructure, Project of CI element protection and others.

The complete curriculum for both levels of study programme „Security and protection of critical infrastructure“ is available on the faculty website.

The main advantage and a specific feature of the study programme especially is the intersection of knowledge and skills from the fields of crisis and security management. The graduate's knowledge and skills are focused on risk management, security management and ways of securing protection of important structures (Documentation 2015).

3.2 Graduate profile and employment opportunities

To demonstrate the assumed knowledge and skills of graduates of our study programme, only the crucial parts of the engineer graduate profile will be provided.

The graduates of the 2nd degree (master degree) will be able to identify possible threats and sources of risk in social, economic, natural, technical and technological processes, they will be able to analyze and comprehensively evaluate them as well as to propose procedures and application of methods and techniques of risk minimization. They will possess theoretical knowledge of critical infrastructure protection with specific focus on power engineering, transport and necessary basics of information and communication technologies. They will be able to propose and implement prevention measures, to monitor and analyze the development of risk and crisis factors, prepare the adequate response to the emerging crisis phenomenon, manage continuity in the functioning of critical infrastructure elements and to implement an efficient system recovery. The graduates should be able to forecast the development of social, economical, natural and technological processes, to apply the optimization procedures and other management tools to improve the efficiency of their operations. They will be provided with information on security management system of the state, on regional territorial units and their self-government. The graduate is a qualified expert in managing security and protection of:

- entities in the fields of power engineering, oil and natural gas production and distribution, heat industry, transport infrastructure management,
- entities that provide protection of important objects and systems of infrastructure,
- central state administration bodies (Ministry of Economy, Transport, Defense, Interior),
- expert teams active in protection of infrastructure networks.

4 CONCLUSIONS

The energy and transportation system of the region, state and the whole European area is a complex, interdependant structure, consisting of large number of infrastructures (energy production facilities, transmission systems, transport routes, information systems, terminals, etc.). This structure is of crucial importance for securing the vital functions of society. The fields of power engineering and transport are therefore considered the most important sectors of critical infrastructure in most developed countries worldwide.

The most topical and crucial problems of the new study program are:

- demographic crisis consequences (sharp drop in the number of university applicants),
- ignorance of the concept of critical infrastructure and its related issues in society, as a result the title of the study programme remains unknown for most potential applicants,
- the first study programme focused on CI protection in the Central and Eastern Europe and related lack of opportunities to exchange experience and experts in the field,
- necessity to create the form and contents of new profile courses, especially for important areas of power engineering and information and communication technologies,
- lack of opportunities of subject-specific and practical cooperation with important energy companies and their experts for problems of security and protection of their company infrastructure (Vidrikova 2013).

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Process model of security and protection management of critical infrastructure in sector transport

WORKS CITED

Law No: č.45/2011 Z.z. about critical infrastructure

European Council Directive 2008/114/ES, z 8.12.2008 o identifikácii a označení európskych kritických infraštruktúr a zhodnotení potreby zlepšiť ich ochranu, In: Úradný vestník Európskej únie, L 345/75-82, zo dňa 23.12.2008.

Novák, L. (2011): Kritická infrastruktúra transporta v Slovenskej republike, In: Mechanics Transport Communications 3/2011, časopis Vysoká škola dopravy T.Kableskova Sofia, Bulharsko, ISSN 1312- 3823, s.X-149 –X-155.

Seidl, M., Šimák, L.(2012): Protection of critical infrastructure. In: Logistics and transport, No 1(14)/2012, Wroclaw, ISSN 1734-2015, s. 81-102.

Sventeková, E., Čičmancová, S. (2013): Risk assessment of rail transport. In: Transport means 2013 : proceedings of the 17th international conference : October 24-25, 2013, Kaunas University of Technology, Lithuania. ISSN 1822-296X. Kaunas: Kaunas University of Technology, 2013. S. 228-231.

Šimák, L. a kol.(2012): Ochrana kritickej infraštruktúry v sektore doprava. 1.vyd., EDIS - vydavateľstvo ŽU v Žiline, 2012, 180 s. ISBN 978-80-554-0625-1.

Titko, M., Peterková, A., Hollá, K.(2013): Vulnerability of Linear Transport Constructions of Critical Infrastructure and Comparison of Its Assessment Approaches. In: WSEAS 2013: 17th WSEAS International Conference on SYSTEMS (part of CSCC '13): Rhodes Island, July 16-19, 2013, Greece. ISBN 978-960-474-312-4.

Vidriková D., Boc, K.(2013): Ochrana kritickej infraštruktúry. EDIS – vydavateľstvo Žilinskej univerzity v Žiline, 2013. ISBN 978-80-554-0654-1.

Documentation (2015) Study programme - Security and Protection of Critical Infrastructure, 2015, Fakulta bezpečnostného inžinierstva, Žilinská univerzita v Žiline. <http://vzdelavanie.utc.sk/vzdelavanie/plany.php>

Project documentation OKI 2010 - APVV-0471-10 - Ochrana kritickej infraštruktúry v sektore doprava

Project documentation RAIN 2014 – No. 608166 – Risk Analysis of Infrastructure Networks in Response to Extreme Weather

Project documentation VEGA 2015 – VEGA 1/0240/15 Process model of security and protection management of critical infrastructure in sector transport

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SYNTHETIC INDICATOR OF THE FINANCIAL CONDITION AS A PROCESS APPROACH

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Abstract:

Financial situation is a fundamental issue for the local government. Financial problems could threaten insolvency that is why the analysis of financial situation is essential not only for current management, but also for protection before side effects of economic downturn. One of the most important determinants of the development of the local government unit is its financial situation, which has an undeniable impact on the whole activities conducted in local government. This can be analyzed both in terms of current or investment expenditure and revenues. Inconvenient financial situation may limit the opportunities of the local government development. Municipalities in good financial condition are more competitive and efficient in conducting development policy. The aim of the study is to assess the financial condition of rural communities Kielce poviats by using synthetic index in years 2003-2014. The article presents the theoretical basis and practical application of methods for linear ordering. The situation of financial condition of gminas in Poland is difficult. During the studied period of time the leading positions were held by Sitkowa-Nowiny, Morawica, Checiny. At the end of the ranking were Mniow, Lopuszno, Gorno in years 2003-2014. The value of the measure fluctuated between: in 2003 – 0.57 and 0.19; in 2005 – 0.53 and 0.18; in 2009 – 0.49 and 0.19; in 2014 – 0.57 and 0.16.

Keywords: financial condition, budget, revenue, expenses, synthetic indicator

1 INTRODUCTION

Development of the local government depends on many factors. We can highlight the following: financial resources, geographical location, demographic situation, economic structure and the activity of the government. The level of socio-economic development of local government units

determines the scale of the problems which can be faced by the local authorities. This greatly affects the prioritization of projects planned for implementation. Eastern areas of the country are characterized by large scale of infrastructure backlog which combined with a low level of investment is the main barrier to their development. Regions in which appears the accumulation of development barriers are defined by the European Commission as problematic regions (Third report on economic ..., 2004).

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Evaluation of the activities of local government units (jst), security, economic development should take into account the social and economic characteristics of the region forming the potential in the local government units. Level characteristics, influence of local authorities for social and economic situation and the possibility of identifying the needs for action to stimulate the potential of the unit, allows the multi-faceted analysis of the situation of the region (Lubinska, 2007; Olak, & Labuzik, 2013; Olak, & Pawlik, 2013).

Finances are a key area for the management of local government units due to a wide range of public tasks, performed by the local sector, on which the implementation of adequate financial means are necessary. Financing voivodship is a complex process, each time resulting from economic and social conditions of the local government units and implemented financial and budgetary management policy of local authorities.

The reign (local government) operate in a dynamic and turbulent external environment. This fact makes the ability to adapt to changing conditions and reaching for the newer and newer solutions in the sphere of finance very important (Raport analityczny, 2011; Lesniewski 2010; Bogusz, & Tomaszewski, 2015.).

2 AIM AND RESEARCH METHOD

The aim of the study is to assess the financial condition of rural communities Kielce poviats by using synthetic index in years 2003-2014. The article presents the theoretical basis and practical application of methods for linear ordering.

Taxonomic methods used to evaluate objects on the basis of multiple features are divided into methods of grouping and ordering. The taxonomic analysis is an assessment of the level of diversity of objects described by statistical characteristics. It leads to determine the clusters of objects in terms of similarity of development, as well as to obtain a homogeneous class of objects due to characteristic properties (Kopczewska, Kopczewski, Wojcik, 2009).

On the basis of the factual, formal and statistical data, a set of variables describing the financial economy in selected municipalities was chosen (Strahl, 2006). Selected variables allow the

positioning of objects on the background of others of the same type within the specified time. Taking into account the statistical criteria, too correlated or quasi-steady variables were eliminated.

A correlation matrix was used, where too strong link of two analyzed features (≤ 0.75) indicates that they are carriers of similar information, which is why one of the variables is removed from the further study. Successively the values of the coefficient of variation were calculated. From the set of variables those values were removed which fulfill the inequality: ratio ≤ 0.15 . They were considered as a quasi - permanent, not furnishing relevant information about the being investigated phenomenon (Zelias, 2000).

Whereas the availability of data, the author decided to construct a variable synthetic aggregate indicators for the assessment, describing the financial situation. To be able to make a comprehensive assessment of all municipalities, the author has used local data Bank data of GUS. Information present the most important aspects of budgetary policy. Finally, to test the selected set of indicators, which were selected as the most representative of the entire set, not repeating information other accepted indicators.

In the diagnostic variables are the variables that have different effects on the direction of the development of the phenomenon: stimulate or inhibit it (s -stimulant, d -destimulant). The method is applied for the master so transformed design features without a measure of standardized values of the synthetic averaged. In the absence of normative values that may serve as the pattern of variables, often coordinates the master at the level of the maximum values to be indicators of max $\{x_{ij}\}$. Unitarization procedure variables requires the use of the following formula (unitarization method):

$$\text{stimulant} \quad x = \frac{x_{ij} - \min_i x_i}{\max_i x_i - \min_i x_i}$$

$$\text{destimulant} \quad x = \frac{\max_i x_i - x_{ij}}{\max_i x_i - \min_i x_i}$$

$$\text{the range of the synthetic indicator} \quad <0,1>$$

where: \bar{x} is the mean value of standard features for the audited entity, x_{ij} means the value of j -this features for the audited entity, \max -the maximum value of the j -th features and \min -the minimum value of the j -th features (Wysocki, & Lira 2005).

To determine the value of the synthetic indicators without reference. She assumed that aggregate variable contains all the information obtained which provide individual meters of the structure. Of standardized values of simple averaged in accordance with the model

$$s_i = \frac{1}{p} \sum_{j=1}^p x_{ij} (i = 1, 2, \dots, p)$$

where: S_i -a synthetic measure of the financial health of the municipality during the period considered; x_{ij} -features structure of synthetic and p - is the number of sub-indices used in construction of the aggregate measure aspect of the potential. Calculated values of the synthetic index allowed assigning the individuals to the so-called. groups with similar features. Information which of them is in particular groups may have practical importance both for local authorities, tax authorities and investors (Dziekanski, 2014; Dziekanski, 2015; Bury, Dziekanski, 2012).

3 THE ESSENCE OF THE SELF-GOVERNMENT AND THE FINANCIAL CONDITION

The regions play a crucial role in the economic and social system of the country. They are places of economic activity concentration. They create added value and jobs. Understanding the development of regions and their role in the social and economic development of the country requires the analysis of all reciprocal functions of the regions and their relationships and links with the environment (Skubiak, 2011).

Local government in the organizational structure of the state has financial independence and connected with the right to self-regulation of the budget, which is the basis of its financial management. In order to fulfill the set tasks a certain actions are undertaken in relation to revenues gathering and making expenditures. Defining the relationship between generated revenues and expenditures reflects the effect of decisions made by local government bodies.

Conclusions of the analysis, comparisons and evaluations of financial condition may become the basis for decision verification and fiscal policies of the state (Owsiak, 2005).

In recent years, a significant part of the General Government expenditure was spent on investments that contribute to the development of our economy. Expectations and societal needs grow, while the resources available to them Government entities are limited, which in turn increases the need for rational and effective management of public resources.

The financial condition of the entity is understood as the ability to finance services by using collected revenues in the particular socio-economic and institutional environments, or as the ability of territorial authorities to generate the funds necessary to pay liabilities during the given period (Bieniasz, Golas, & Luczak, 2013). The financial condition of the local government can be described by: the ability to perform the tasks, achieving a balanced budget, as well as expanding the assets. It consists for example of: income level, financial independence, the amount of investment expenditures, ability to raise extra funds, the financial result. There is a feedback between the financial condition of the entity and the level of the local development, understood as a complex of quantitative and qualitative transformations in a given area, relating to both the standard of living of residents and business operation. Finances are means of local governments' policy, where the allocative and redistributive function are carrying out increasingly by local government finances (Sobczyk, 2010).

In the financial economy of the region, two major factors are distinguished, which create the basis of development: own revenues, which indicate the economic activity, and investments, which indicate the tendency to increase one's ownership conditions. They contribute to the improvement of living conditions and the general development. Own revenues of self-government depend from economic situation in the local scale, they are the evidence of territorial self-government unit's affluence, as well as of high financial independence in the area of funds spending (Famulska, 2009). Expenditure is the second element strongly affecting the financial condition

of the rural municipalities. Investment expenditures are very significant here (for development purposes, increasing the income of the county, increasing its attractiveness) and current (associated with responding to consumer collective needs, providing goods and services to the regular, everyday functioning of both residents and businesses, as well as with the execution and performance of basic tasks).

Define the relationship of income and expenditure reflects the effect of the decisions taken by the local government and the effects of these decisions. Applications together with comparisons with other Governments can be the basis for the verification and assessment of decisions by local authorities budgetary policy.

4 THE SYNTHETIC INDICATOR OF FINANCIAL CONDITIONS

The scale and scope of the activities of the local government are designated by property and property resources. Financial management of local government units should be seen from the angle of all the activities related to gathering and spending of funds by the authorities. Financial awareness is an essential skill for functioning in modern society and is becoming more and more important in the long term for a dignified life of the individual and society (Raport analityczny, 2011). Local government financial management is not confined solely to the implementation of the adopted budget. However, the income is the main source of financing their tasks by self-government units (Skica, 2011; Sowa, 2014; Satola 2015).

The structure and level of income are mainly determined by legal and political factors. Local self-governments have been provided with a certain range of competences concerning the development of local taxes and charges, but they are limited and concern rather inefficient sources of income. The revenue system should be appropriate to the scope of ongoing tasks and should enable conducting the income policy.

Swietokrzyskie region covers an area of 11.710 sq km (15th in the country), the population is almost 1,270.3 thousand (13th place). It consists of 102 municipalities and 13 counties and one city with county rights- Kielce city. In the northern part of the province (formerly Old Polish Industrial Region)

since many years heavy industry has been developing (it is currently experiencing a difficult period) and metallurgical (ostrowiecki district), metal (skarzynski district), mechanical (starachowicki district), foundry (konecki district). The southern and eastern parts of the region are dominated by agriculture, particularly well-developed gardening and fruit-growing industry (district of Sandomierz). Presented characteristics of the region is reflected in the statistics showing data: total revenue per capita; own revenues per 1 inhabitant; population; entities registered in REGON per 10 thousand population; average monthly gross salary; registered unemployment rate; spending on one person and the surface of the county.

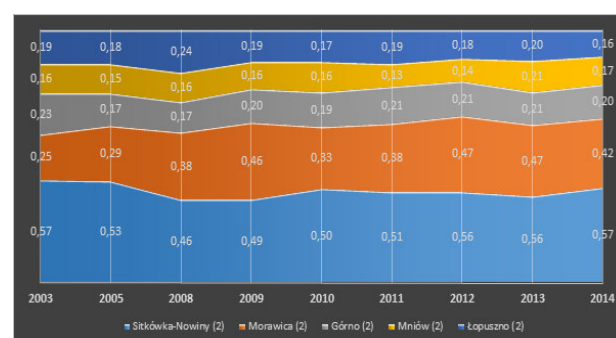
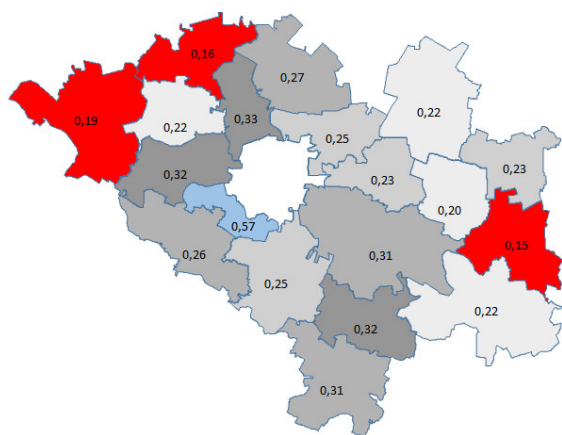


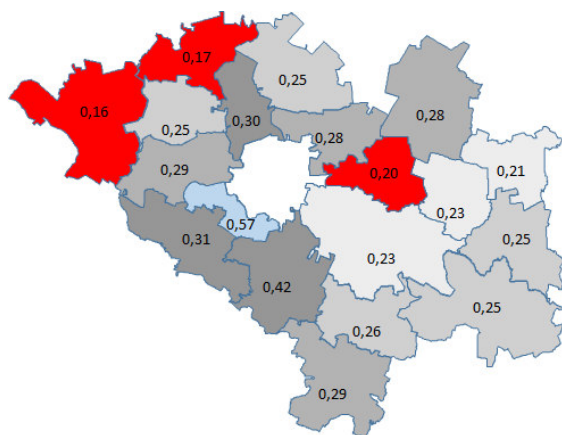
Fig. 1 Synthetic index of financial condition of wybranych gmin in Poland (in 2003, 2005, 2010, 2014). Source: own authoring

The statistical research done confirm the existence of disproportions in the area of financial condition. The order of the rural communities in the ranking has not basically changed in the following years (2003-2014). During the studied period of time the leading positions were held by Sitkówka-Nowiny (0.57-2003; 0.53-2005; 0.49-2009; 0.57-2014); Morawica (0.25-2003; 0.29-2005; 0.46-2009; 0.42-2014). At the end of the ranking Górnó (0.23-2003; 0.17-2005; 0.20-2009; 0.20-2014), Mniów (0.16-2003; 0.15-2005; 0.16-2009; 0.17-2014); Łopuszno (0.19-2003; 0.18-2005; 0.19-2009; 0.16-2014) (table 1, fig. 1).

The analysis enabled the division of rural communities into 5 groups. The vast majority of rural communities belongs to group D (15, 13, 12, 15) and E (3, 5, 5, 2); C (1, 1, 2, 2; in the years 2003, 2005, 2009, 2014). There are no rural communities in group A and B. A shift in time can be observed between the groups (table 1).



2003



2014

Fig. 2 Synthetic index of financial condition in 2003, 2014). Source: own authoring

The high index of financial condition of a rural communities (Sitkowka-Nowiny, Morawica, Checiny, Miedzina Gora) is, inter alia, appropriate level of own revenues or expenditure potential of local budgets as well as the ability to realize pro-development investment projects.

In relation year on year the value of synthetic measure of financial condition does not have stable position. In the studied years 2003-2014 both positive relations year on year and negative relations were observed. The positive transformations took place in Sitkowka-Nowiny (5), Maslow (5), Morawica (4), Checiny (4), Mniow (2), Lopuszno (2), which can be interpreted as a development. Negative changes were noticed in all the rural communities, which can be assessed as period of regression (table 2).

The strong position of the Sitkowka - Nowiny municipality seems to be connected with the proximity of Kielce and the functioning of wastewater treatment plant (which serves the Kielce city) in the area of the entity – the biggest employer in the area – and a large group of companies in various industries. The plants of cement and lime industry are situated here. What is more, the location of the municipality by the main railways and roads and in the direct neighbourhood of Kielce has also an important meaning. Small and medium enterprises became the basic employers. The service sphere (specially building) has big possibilities of development because of the availability of the basic raw materials and other materials both in the municipality and in Kielce.

The position of Morawica municipality is a result of 1000 economic operators conducting economic activity. The dominant line of business are the services (building, food), trade and transport. The municipality is of agricultural nature, but with large share of non-agricultural sector.

In the Lopuszno municipality during the whole analyzed period of time a negative balance of migration was observed, which means that more people decided to leave the municipality than to settle here. Most companies are associated with trade, both wholesale and retail trade and repair of motor vehicles and motorcycles and agriculture. The building is the second category. It is a very popular part of the economy in the swietokrzyskie voivodeship. The activity in the administration services should be regarded as the most dynamically growing sector. An important socio-economic problem occurring throughout the Swietokrzyskie voivodeship is the phenomenon of unemployment.

5 CONCLUSIONS

Management of public monetary resources by the local government should be rational due to growing social needs and limited resources available. Some action should be taken towards the rationalization of expenditure of certain units, due to the fact that in the assessment of the financial resources it is important not only whether a scheduled task has been done, but what costs

have been incurred in its implementation and what are the effects (Jastrzebska).

The Community's financial management is of major importance for two reasons. Firstly, it determines the development of the community. Secondly, the financial state is a synthetic expression of the economic development potential of each entity. Through the prism of finance an overall assessment of the functioning of the community and their development opportunities can be made. The financial condition is not only a result of ongoing public tasks, but also a bridge connecting all the activities and projects undertaken by each local government.

The financial condition is a complex phenomenon that is difficult to measure on the basis of one measurable characteristic. Therefore for its summary description the taxonomic measurer was used.

Construction of the aggregate feature allows the measurement of multidimensional phenomenon and the linear arrangement of the units, for example, according to their level of their financial condition. As a benefit of their usage a quantification of complex phenomena with a single numerical value that facilitates all comparisons and synthesizes all the partial images can be considered (Strahl 2006) .

The situation of financial condition of gminas in Poland is difficult. During the studied period of time the leading positions were held by Sitkowka-Nowiny, Morawica, Checiny. At the end of the ranking were Mniow, Lopuszno, Gorno in years 2003-2014. The value of the measure fluctuated between: in 2003 – 0.57 and 0.19; in 2005 – 0.53 and 0.18; in 2009 – 0.49 and 0.19; in 2014 – 0.57 and 0.16.

Table 1. Synthetic index of financial condition

	2003	2005	2009	2014
0.80 ≤ S < 1.00 very good (A)	–	–	–	–
0.60 ≤ S < 0.80 good (B)	–	–	–	–
0.40 ≤ S < 0.60 medium (C)	Sitkowka-Nowiny 0.57	Sitkowka-Nowiny 0.53	Sitkowka-Nowiny 0.49 Morawica 0.46	Sitkowka-Nowiny 0.57 Morawica 0.42
0.20 ≤ S < 0.40 weak (D)	Miedziana Gora 0.33 Piekoszow 0.32 Pierzchnica 0.32 Chmielnik 0.31 Daleszyce 0.31 Zagnansk 0.27 Checiny 0.26 Maslow 0.25 Morawica 0.25 Gorno 0.23 Nowa Slupia 0.23 Bodzentyń 0.22 Rakow 0.22 Strawczyn 0.22 Bieliny 0.20	Chmielnik 0.34 Piekoszow 0.30 Miedziana Gora 0.29 Morawica 0.29 Maslow 0.28 Daleszyce 0.24 Lagow 0.23 Nowa Slupia 0.23 Checiny 0.22 Rakow 0.22 Strawczyn 0.22 Pierzchnica 0.21 Zagnansk 0.20	Miedziana Gora 0.36 Strawczyn 0.31 Checiny 0.27 Daleszyce 0.27 Maslow 0.27 Rakow 0.26 Chmielnik 0.24 Piekoszow 0.23 Zagnansk 0.22 Bieliny 0.21 Bodzentyń 0.20 Gorno 0.20	Checiny 0.31 Miedziana Gora 0.30 Chmielnik 0.29 Piekoszow 0.29 Bodzentyń 0.28 Maslow 0.28 Pierzchnica 0.26 Lagow 0.25 Rakow 0.25 Strawczyn 0.25 Zagnansk 0.25 Bieliny 0.23 Daleszyce 0.23 Nowa Slupia 0.21 Gorno 0.20
0.00 < S < 0.20 very weak (E)	Lopuszno 0.19 Mniow 0.16 Lagow 0.15	Bielin 0.18 Bodzentyń 0.18 Lopuszno 0.18 Gorno 0.17 Mniow 0.15	Lopuszno 0.19 Pierzchnica 0.18 Lagow 0.17 Mniow 0.16 Nowa Slupia 0.16	Mniow 0.17 Lopuszno 0.16

Source: Author;

Table 2. Transformations of synthetic indicator in the studied years

	2005/2003	2009/2008	2010/2009	2011/2010	2012/2011	2013/2012	2014/2013	changes +
Bieliny (2)	▼	—	▼	▲	▲	▲	▼	3
Bodzentyn (3)	▼	▼	▼	▲	▲	▲	▲	4
Checiny (3)	▼	▲	▼	▲	▲	▲	▼	4
Chmielnik (3)	▲	▼	▼	▲	▲	▼	▼	3
Daleszyce (3)	▼	▼	▼	▲	▲	▼	▼	2
Gorno (2)	▼	▲	▼	▲	—	—	▼	2
Lagow (2)	▲	▼	▲	—	▲	▲	▼	4
Lopuszno (2)	▼	▼	▼	▲	▼	▲	▼	2
Maslow (2)	▲	▲	▲	▼	▲	▼	▲	5
Miedziana Gora (2)	▼	▲	▼	▲	—	▼	▲	3
Mniow (2)	▼	—	—	▼	▲	▲	▼	2
Morawica (2)	▲	▲	▼	▲	▲	—	▼	4
Nowa Slupia (2)	—	▼	▼	▲	▲	▼	▲	3
Piekoszow (2)	▼	▼	—	▲	▼	—	▲	2
Pierzchnica (2)	▼	▼	▲	▲	▲	▼	—	3
Rakow (2)	—	▲	▼	▲	▲	▼	▲	4
Sitkowa-Nowiny (2)	▼	▲	▲	▲	▲	—	▲	5
Strawczyn (2)	—	▲	▲	▼	▼	▲	▼	3
Zagnansk (2)	▼	▼	▲	—	▲	▲	▼	3

▲ increase ▼ decrease — no changes

Source: Author

WORKS CITED

- Bieniasz, A., Golas, Z., & Luczak, A. (2013). Zastosowanie metody TOPSIS do oceny kondycji finansowej gmin w Polsce w 2010 roku, *Zeszyty Teoretyczne Rachunkowosci*, tom 70 (126). Warszawa: SKwP. 25–42.
- Bogusz, M., & Tomaszewski, M. (2015). Wykorzystanie srodkow pomocowych UE na rozwoj przedsiebiorczosci w ramach PROW 2007–201, *Polityka ekonomiczna* nr 402, Wyd. UE we Wroclawiu. 50-59.
- Bury, P., & Dziekanski, P. (2012). *Porownanie wybranych elementow budzetow gmin wojewodztwa swietokrzyskiego*, 7-29 [In:] P. Dziekanski (ed.), *Gospodarka lokalna droga rozwoju regionu*. Ostrowiec Swietokrzyski: Wyd. Stowarzyszenie Nauka, Edukacja, Rozwoj.
- Dziekanski, P. (2014). *Koncepcja wskaźnika syntetycznego dla oceny sytuacji finansowej powiatow*. 98-108 [In:] *Rachunkowosc na rzecz zrownowazonego rozwoju; Gospodarka – etyka – srodowisko*, D. Dziawgo, G. Borys (red.), *Prace Naukowe Uniwersytetu Ekonomicznego we Wroclawiu*, nr 329.
- Dziekanski, P. (2015). *Wykorzystanie wskaźnika syntetycznego do oceny poziomu rozwoju samorzadu na przykladzie gmin wiejskich wojewodztwa swietokrzyskiego*. In S. Owsiak (ed.), *Determinanty rozwoju Polski*. *Finanse publiczne* (pp. 261-279). PTTE. Warszawa 2015.
- Famulska, T. (ed.) (2009). *Gospodarka finansowa jednostek samorzadu terytorialnego w warunkach integracji europejskiej*, Wyd. AE w Katowicach. 7.
- Jastrzebska, M. (2013). *Finanse jednostek samorzadu terytorialnego*, https://www.profinfo.pl/img/401/pdf40161289_3.pdf (04.03.2013).
- Kopczewska, K., Kopczewski, T., & Wojcik P. (2016). *Metody ilosciowe w R. Aplikacje ekonomiczne i finansowe*. Warszawa: CeDeWu.
- Lesniewski, M.A. (2010). *Kultura organizacyjna gminy a rozwoj regionalny* [In:] K. Kucinski (ed.), *Przedsiębiorczosc a rozwoj regionalny w Polsce*, Difin, Warszawa. 54.
- Olak, A., & Labuzik, M. (2013), *Europejska Unia. Wybrane Temy*. Wyd. Stowarzyszenie „EDUKACJA NAUKA ROZWÓJ” Ostrowiec Sw.

- Olak, A., & Pawlik, A. (2013). *Wrażliwość Regionu na zmiany*. WSBiP w Ostrowcu Sw. 2013.
- Owsiak, S. (2005). *Finanse publiczne. Teoria i praktyka*. WN PWN, Warszawa, p. 123.
- Raport analityczny (2011). *Wiedza finansowa w praktyce działalności jednostek samorządu terytorialnego, Rzeszów*, http://ibaf.edu.pl/pliki/wiedza_finansowa_1.pdf (01.03.2013).
- Satola, L. (2015). Kondycja finansowa gmin w warunkach zmiennej koniunktury gospodarczej, *Journal of Agribusiness and Rural Development*. 1(35), 115-123.
- Skica, T. (2011). *Podstawy gospodarki finansowej gminy (wybrane zagadnienia)*. Wyższa Szkoła Biznesu – National-Louis University & Instytut Badan i Analiz Finansowych Wyższej Szkoły Informatyki i Zarządzania z siedzibą w Rzeszowie, Krynica-Zdroj – Rzeszów, p. 3.
- Skubiak, B. (2011). Wykorzystanie metod statystycznych w analizach regionalnych – zarys teoretyczny. *Studia i Prace Wydziału Nauk Ekonomicznych i Zarządzania*. 24, 134. http://www.wneiz.pl/nauka_wneiz/sip/sip24-2011/SiP-24-10.pdf (20.02.2013).
- Sobczyk, A. (2010). *Rozwój lokalny – wybrane problemy finansowania*. Zesz. Nauk. SGGW, Ekonomika i Organizacja Gospodarki Żywnościowej 81, Warszawa, p. 125-136.
- Sowa, B. (2014). *Gospodarka finansowa gminy-wybrane aspekty [In:] Samorząd gminy w świetle badań empirycznych* (Program naukowo-badawczy "Dobra Administracja") ed. J. Posłuszny i Z. Czarnika; Wyższa Szkoła Prawa i Administracji Przemysł- Rzeszów.
- Strahl, D. (ed.) (2006). *Metody oceny rozwoju regionalnego*. Wyd. AE, Wrocław.
- Lubińska, T. (ed.) (2007). *Budżet zadaniowy*. Difin, Warszawa, 27.
- Third report on economic and social cohesion (2004). A new partnership for cohesion. Convergence, competitiveness, cooperation. European Commission. Luxembourg. 7.
- Wysocki, F., & Lira, J. (2005). *Statystyka opisowa*. Wyd. AR, Poznań.
- Zelias, A. (ed.) (2000). *Taksonomiczna analiza przestrzennego zróżnicowania poziomu życia w Polsce w ujęciu dynamicznym*, Wydawnictwo AE, Kraków.

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INTEGRATION OF EDUCATION, SCIENCE AND PRODUCTION IN SYNERGETIC PARADIGM OF PUBLIC MANAGEMENT

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Abstract

The article aim is to justify national priorities of integration processes activation in science, education and production that is important to consider in the synergetic paradigm of public management in Ukraine at the current stage of new challenges of globalization and the need to stabilize the economic development on innovative principles in the context of competitiveness. Integration is considered from the standpoint of a specific type of organizing the social interaction forms of modern spheres of science, education, production and adapting business entities to innovations in the context of qualitatively new joint structures, modernizing partnerships relations, effective functioning of which is accompanied by a synergetic effect. Based on the Global Competitiveness Index of the World Economic Forum integration of science, education and production in Ukraine in the international dimension is analyzed. There are determined the negative factors that impede the positive development of the national integration processes in Ukraine. The basic modern challenges and preconditions of deepening scientific, educational and productive interaction in Ukraine are formulated. It is proved the objective necessity of using a synergetic approach to strategic public management in modern conditions of openness and non-linearity of the Ukrainian national economy development, irreversibility of institutional changes and macroeconomic instability. The authors have developed the system of public management of balancing human and technological development of Ukraine, innovative tools of which are based on traditional methods of justifying the strategic program-targeted direction priorities.

Keywords: Integration, science, education, production, synergetic paradigm, public management

1 INTRODUCTION

In the modern dynamic world, the economic

growth is not possible without the innovative development based on advanced scientific achievements. With the growth of international competition success of socio-economic development is guaranteed only to those states that can provide effective realization of human potential. International technological and scientific

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exchange, transfer of intellectual potential is one of the hallmarks of our time.

Integration of science, education and production is of great importance for the national economy competitiveness and the state as a whole. It is important for Ukraine to revive demand for science as the basis for the competitiveness of the national economy. It is necessary to combine education, science and innovations by expanding the research sector in higher education institutions.

Development of integration of education, science and production will accelerate modernization of the scientific and educational spheres and reduction of at least a part of related costs (including social costs), the more efficient use of budget funds and state property, improvement of the age structure of employees and quality of education, growth of innovation activity. Quality of new generations of professionals that come into branch and academic research institutes determines the level of these scientific advances and their potential innovation capacity. Integration not only promotes the university lecturers' active participation in scientific and research works (R&D), but also allows creating professional and educational programs and providing laboratory equipment that meets the current state of science. Thus, for realizing modern, more complex models of integration and adequate to them financial and economic mechanisms the substantial adjustment of legislative norms and the state support of the integration process are necessary.

2 THEORETICAL FOUNDATIONS OF INTEGRATION OF SCIENCE, EDUCATION AND PRODUCTION

Issues of integration of science, education and production in the economic, philosophical, legal, historical aspects are considered in the scientific works of such authors as: Amosha, Vishnevskiy & Zbarazska (2012), Roco & Bainbridge (2013), Bavykhin (2003), Bazhal (2009), Fey & Birkinshaw (2005), Fedulova (2009), Heyets & Semynozhenko (2006), Kostyuk (2011), Twiss (1980) and others. Despite the considerable number of publications on the researched subject, its complexity and novelty, many methodological issues remain unresolved. It is acquired the particular relevance of problem issues of identifying the fundamentally new requirements

for scientific and educational organizations as active participants in the innovation process, effective stimulators of the productive forces, which leads to justification of the priorities of improving the current forms of integration and implementing the new promising models of cooperation of science and education with production.

Investigation of the "integration" concept in the economic aspect, definition of reasonable limits of interaction between science and education as equal partners allowed to specify the nature of integration on areas of science and education as a set of relationships between scientific and educational organizations that interact as a part of the integration structure or on a contractual basis for establishing sustainable relationships, in order to harmonize interests, achieve the additional effect of joint activity and relationships with production and public authorities.

Integration as a specific type of social interaction and the process of productive, socio-economic, administrative and political adaptation of the economy different sectors subjects to innovations should be considered from the standpoint of the formation of a qualitatively new integrated structures with the accelerated path of development, which is usually accompanied by occurring certain emergent (synergetic) effect of providing the excess of the result of collective (joint) operation of the new structures individual elements over the sum of their individual (autonomous) actions by using the relationships, mutual reinforcement of different activities. An important prerequisite for appearance of synergetic effects is a conscious collective activity of the innovation activity subjects, behaviour of which is determined by a complex of endogenous and exogenous factors.

Research of interaction of modern education, science and production has a very important scientific and socio-economic importance. It is essential for establishing the effective regulation of their mutually conditioned relations.

As we live in the age of the society innovative development, the system of higher education is facing new challenges. The traditional knowledge-education model is gradually replaced by a competence model, which is filled with the activity beginning and promotes the comprehensive

development of the individual, successful in society (Kostyuk, 2011).

The root cause of such fundamental changes in the education sector is a scientific and technological revolution (STR), marked the second half of the past XX century. The main features of the STR are the following (Bulanova-Toporkova, 2002):

- fusion of scientific and technological revolution;
- scientific discoveries become immediately the basis of new technologies;
- transformation of science into a productive force;
- the system automatization of production;
- replacement of direct human labour by materialized knowledge in production;
- appearance of a new type of an employee with a qualitatively new level of training and thinking;
- transition from extensive to intensive production.

But the main feature is that STR was formed on the basis of deep systemic linkages of science, technology, production and the resulting radical revolution in the productive forces of society under the defining role of science.

One of the major consequences of the STR is transformation of the individual, his role in the scientific and technological progress and the STR negative consequences elimination through creation of a new living environment and development of other needs, which in turn determined the choice of a new, individual-oriented educational paradigm.

Features of the modern science development (Bulanova-Toporkova, 2002), which main principles are integration and a synergistic approach, help to understand patterns and prospects of the modern education development as a key element of one of the STR subsystems.

It is generally accepted the socio-economic importance of education and its role in scientific and technological progress, the spiritual life of society, development and the economy qualitative improvement. In the modern conditions of forming an innovative economy competition in the economic sphere comes down to competition in the field of science and technology and, as a

result, to competition in preparing and organizing the use of qualified personnel. Today, every country in order to take a decent position on the world scene and ensure the high economic growth needs to make large investments in education, training and extensive training, expanding access to knowledge.

Education is the widest sphere of social activity. And it should develop faster than the economic activity.

Nowadays, large manufacturing companies need only highly qualified employees who are ready to intensive intellectual work. For this reason, there is a gap in the incomes distribution between population groups of different qualifications (Bavykhin, 2003). It is more difficult to find low-qualified jobs in the developed countries, because such productions are removed to the developing countries with the cheap labour sources. To solve this problem, the developed countries have gone through a major expansion of advanced training courses, retraining, and proposals of alternative jobs. However, under such conditions there are visible discrimination and presence of social barriers. It interferes with the process of obtaining knowledge by a part of population and leads to the social tensions enhancement and a sharp increase in income differentiation, and hence to social conflicts. Thus, an indicator of socio-economic development of the state is the common to all opportunities to receive, apply and develop knowledge.

Today in the economy of the leading countries there is growing demand for a highly qualified, highly intellectual employee who has received fundamental education. Such an employee is able to think creatively and make non-standard, high-performance solutions.

Also, since the 60-ies of XX century, education is considered as one of the most important sources of increasing the productivity of labour. For example, T. Schultz considered education as an independent factor of growth (Schultz, 1960), while E. Denison - as the qualitative characteristic of the labour factor (Denison, 1967).

It should be noted that, since the economic growth affects the level of employees' education, respectively, then it influences the productive activity of the enterprise.

Also, education not only turns a man into a more productive employee, but also develops its business and organizational skills. In the economic literature, this phenomenon is called the "distribution effect" of education: "working efficiency is related to the ability to perform a certain number of tasks; distribution effectiveness is associated with the ability to make right decisions" (Chiswrok, 1974). Rapid implementation of innovations improves the enterprise effectiveness, and therefore stimulates competition in the industry, thereby the productivity of labour is increased in society and the economic growth is stimulated.

As to the authors' point of view, contribution of education to the economic growth of the industrial enterprise can be considered in three main directions:

1. providing the enterprise employees with receiving already accumulated knowledge;
2. promoting an employee to obtain new knowledge;
3. accompanying the knowledge production required to work in the production during the period of scientific and technical progress.

It is also necessary to take into account the fact that in recent years the system of production and transmission of knowledge has dramatically changed. In addition, the volume of existing knowledge and information has significantly increased.

Nowadays, it is impossible for the 5-6 years to prepare a person for professional activity for the whole life, because every year theoretical 5% and 20% of professional knowledge is updated. For example, the unit of measurement of aging new knowledge of a specialist adopted in the United States, the so-called "half-life of competence" (competence period of decline by 50%) as a result of new information shows that for many professions that threshold occurs in less than five years (Fedulova, 2009). To solve this problem, it is possible only with the use of the concept of lifelong learning (OECD, 1996), where each successive level of education is a continuation of the previous one.

It is important to note the need for high performance equal to the three main levels of

education, i.e. primary, secondary and higher education. As the developed countries experience shows that for creating the social conditions, which make possible "technological breakthrough" and exit of the country to a new economic level, are important results and quality of all three levels (Ivanov, 2002):

1. resistant skills of education and accounts produced in primary education;
2. general worldview and the mechanisms of thinking, as well as the technical and organizational skills, which an average level gives;
3. cognitive skills and the ability of thinking to conduct researches, which is given by the higher education system.

It should be noted that the modern education and production integration takes place mainly at the level of higher education.

Education, as a system at the current stage of development, should be realized through the systemic knowledge that is necessary for developing holistic, systemic thinking. Such knowledge can be obtained in the form of synergies from integration of humanitarian, fundamental and engineering sciences. And it is necessary to focus on the global level of science.

Today, thanks to the penetration of the synergetic concept into education, there is a growing interest in issues related to management of integration processes in the educational institutions of high school through the use of the ideas of synergy in order to achieve the necessary competitive advantages by consolidating material and technical, financial, scientific and technical, and human resources and recovering the desired synergistic effect. The organizational and economic mechanism of implementation of the new synergetic concept aimed at the priority and advanced development of the education system and activation of innovative activities of higher educational institutions can become the system integration of academic science, educational institutions and specialized business structures based on the concept of a cluster as a promising modern tool of innovation management in the context of administrative and territorial education.

3 THE STATE OF EDUCATION, SCIENCE AND PRODUCTION INTEGRATION OF UKRAINE IN THE INTERNATIONAL DIMENSION

The current development of the global and national economies is largely determined by its ability to produce, use and commercialize new knowledge and technologies. Innovations are the key factor of the economic development, providing more than 50% of the global economic growth.

Nowadays, Ukraine is represented in several international indexes that assess the scientific-technological and innovative competitiveness of countries and perform their ranking. They include the Global Innovation Index (GII), the Innovation Efficiency Ratio and the Knowledge Economy Index of the World Bank Institute (Grodsky, 2012).

On the authors point of view, integration of science, education and production in Ukraine is best illustrated by the pillar "Innovations" (Table. 1) in the context of subindexes „University-industry collaboration in R&D“, and „Government procurement of advanced tech products“. The pillar "Innovation" provides an opportunity to analyze the ability of the state to restructurization of the economy by using its own scientific institutions, intellectual potential of employees, government support and effective cooperation of universities with business.

During the period from 2010 to 2014, Ukraine's position for the analysed pillar "Innovation" has steadily deteriorated. It dropped from 63rd position (3.11 points) in 2010-2011 years to 93rd position (3.03 points) in 2013-2014 years. Only in the last period (2014-2015 years), the Ukraine's position has slightly improved. And now the country takes 81st position, which is equal to 3.16 points. Ukraine's results can approximately be compared with the results of one of the EU member states - Poland. The smallest difference in ranking results (Table 1) between Poland and Ukraine was in 2014-2015 years, when Poland took 72nd position, Ukraine – 81st position. Nevertheless, one should pay attention to the steady deterioration of the Poland position by the analysed pillar. Ukraine is also well ahead of Serbia, which takes 108th position in the ranking for 2014-2015 years.

The most stable positions in the ranking of countries by the pillar "Innovation" belong to such countries as Switzerland and Finland, which took

first, second or third places during the analysed period. It shows the best integration of science, education and production in these countries.

Such countries as the USA and China have interesting results. They have although significantly outrun Ukraine in the ranking by the pillar "Innovation" during the analysed period 2010-2015 years, but with a continued deterioration in their positions.

General evaluation of the majority of subpillars of the "Innovations" pillar according to Table 2 is negative, although the change of the majority of subpillars in the last five years in percentage is positive. Such a situation is due to the fact that by the majority of subpillars the negative trend was overcome by Ukraine in the last analysed year 2014-2015. The negative results are displayed consistently only by one subpillar "Gov't procurement of advanced tech products", which is -6.9%. It illustrates the failure of Ukraine at the state level to support integration of science, education and production by the procurement of high-tech products.

General falling dynamics of the subpillar "Gov't procurement of advanced tech products" of Ukraine is presented in Figure 1.

As one can see, in the period from 2010 to 2015, Ukraine has worsened its position in the ranking of competitiveness by subpillar "Gov't procurement of advanced tech products", from the place 97 in 2012-2013 years to the place 123 in 2014-2015 years respectively. It should be noted that the time period 2013-2015 years was in the largest socio-political and socio-economic crisis in the history of Ukraine. It has greatly influenced the minimization of the state support of urgently needed integration of science, education and production.

Figure 2 shows that by the subpillar "Gov't procurement of advanced tech products" Ukraine (123rd place) is ahead of such a developed EU country as Italy (130th place). It is quite a surprising result.

Leading positions by this subpillar are occupied by such countries as Qatar, UAE, Malaysia, Singapore and Rwanda. Thus, in these countries, the state is the most interested in promoting establishment of high-tech industries and promotes integration of science, education and production.

Table 1. Pillars of GCI - Innovation

Country	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		Δ, %
	Rank out of 139*	Score **	Rank out of 142*	Score **	Rank out of 144*	Score **	Rank out of 148*	Score **	Rank out of 144*	Score **	Change for 5 years
China	26	3.92	29	3.92	33	3.85	32	3.89	32	3.91	-0.26
Finland	3	5.56	3	5.72	2	5.75	1	5.79	1	5.78	3.81
Poland	54	3.31	58	3.23	63	3.25	65	3.24	72	3.26	-1.53
Serbia	88	2.93	97	2.90	111	2.81	112	2.85	108	2.89	-1.38
Switzerland	2	5.6	1	5.77	1	5.78	2	5.70	2	5.70	1.75
Ukraine	63	3.11	74	3.11	71	3.16	93	3.03	81	3.16	1.58
United States	1	5.65	5	5.57	6	5.50	7	5.37	5	5.49	-2.91

* Note: Ranks out of N economies.

** Note: Scores measured on a 1-to-7 scale.

Source: Composed by the authors on the basis of WEF GCR (2010-2015)

Table 2. Subpillars of GCI - Innovation

Subpillars of Ukraine	2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		Δ, %
	Rank out of 139*	Score **	Rank out of 142*	Score **	Rank out of 144*	Score **	Rank out of 148*	Score **	Rank out of 144*	Score **	Change for 5 years
Capacity for innovation	37	3.5	42	3.4	58	3.3	100	3.2	82	3.6	2,78
Quality for scientific research institutions	68	3.6	72	3.6	64	3.7	69	3.6	67	3.8	5,26
Company spending on R&D	69	3.0	75	3.0	104	2.7	112	2.7	66	3.1	3,23
University-industry collaboration in R&D	72	3.5	70	3.6	69	3.6	77	3.4	74	3.5	0,00
Gov't procurement of advanced tech products	112	3.1	112	3.1	97	3.2	118	3.0	123	2.9	-6,90
Availability of scientists and engineers	53	4.3	51	4.3	25	4.8	46	4.5	48	4.3	0,00
Utility patents per million population***	64	0.4	71	0.3	51	2.1	52	2.9	52	3.2	87,50

* Note: Ranks out of N economies.

** Note: Scores measured on a 1-to-7 scale.

***The United States Patent and Trademark Office

Source: Composed by the authors on the basis of WEF GCR (2010-2015)

The subpillar “University-industry collaboration in R&D” shows advantages of the industry partnering with universities (Fig. 3). In such a case, there are two potential benefits (Fey, Birkinshaw, 2005): (a) Universities tend to be more open, as the social norms in academia favor knowledge sharing

rather than hoarding, and (b) any outflow of knowledge from the focal firm to the partnering organization is less sensitive in the case of partnering with universities, as universities are not potential competitors.

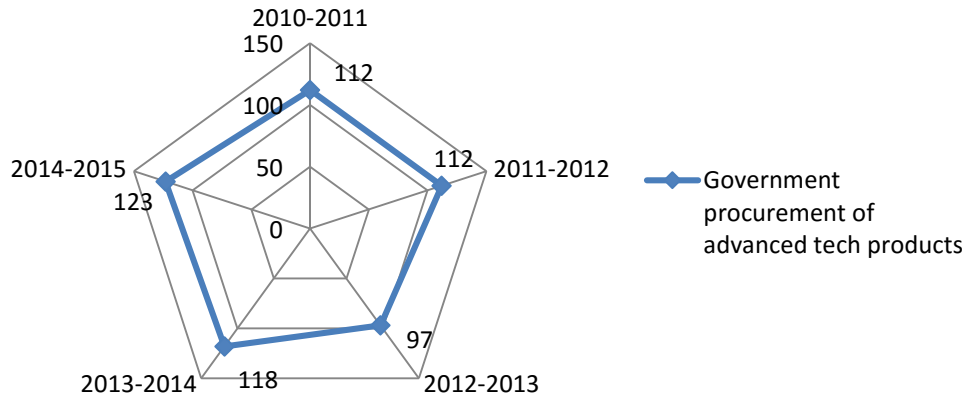


Fig.1. Dynamics of the Ukraine's ranks by the sub-pillar "Government procurement of advanced tech products" in 2010-2015

Source: Calculated by the authors on the basis of WEF GCR (2010-2015)

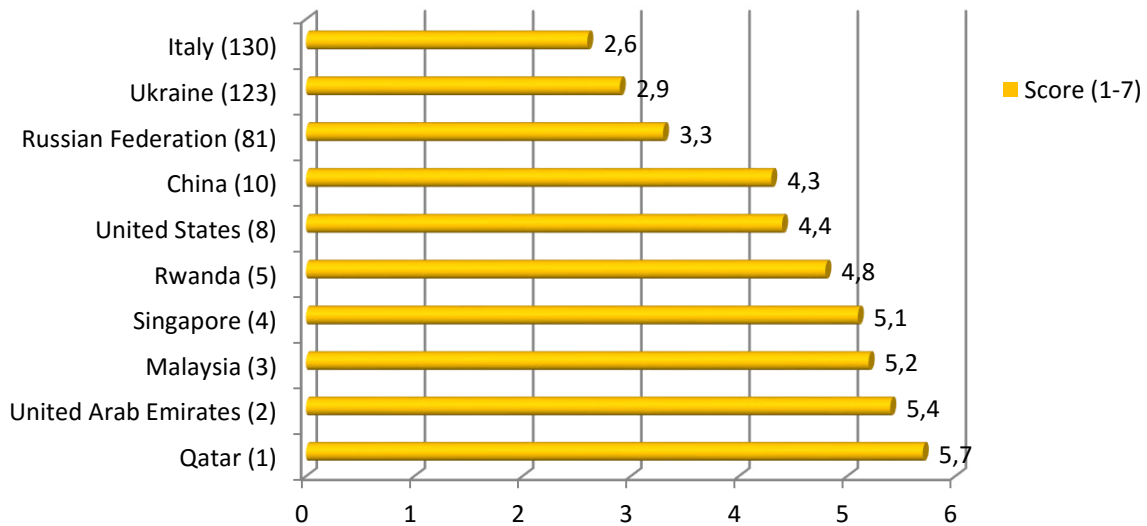


Fig.2. Dynamics of the several countries' ranks by the sub-pillar "Government procurement of advanced tech products" in 2014-2015

Source: Calculated by the authors on the basis of (WEF GCR 2014-2015)

Data of the Global Competitiveness Index by the subpillar "University-industry collaboration in R&D" (Table 1) show that this indicator for Ukraine is relatively stable during the period 2010-2015. The most significant fall it suffered in the years 2013-2014, when Ukraine ranked 77 position (3.4 points). However, Figure 3 shows that even in the years 2014-2015 Ukraine improved its position and took 74 place, but it is 7 positions lower than the position of Russia (67 place) and 42 positions lower than the position of China (32 place).

The development processes feature analysis of integration of science, education and production in Ukraine shows that in the modern conditions there

is kept the scientific sphere separation from the production needs; scientific research and development have weak identification in the innovative processes at the industrial enterprises. The main R&D organization form is academic and industry research institutions, separated from the high school and the real economy sector. National integration processes undergo significant impact of negative factors that impede their positive development. They include: low interest in innovative production structures, their focus on maximizing profits in the short term; lack of the systemic legislation on integration, legal uncertainty of integration forms; low level of scientific research expences by the state and the

economy private sector; low level of financing the integration process; imperfect infrastructure support of innovations; lack of effective

mechanisms for economic incentives for the innovative activity; weak interaction between the science sectors.

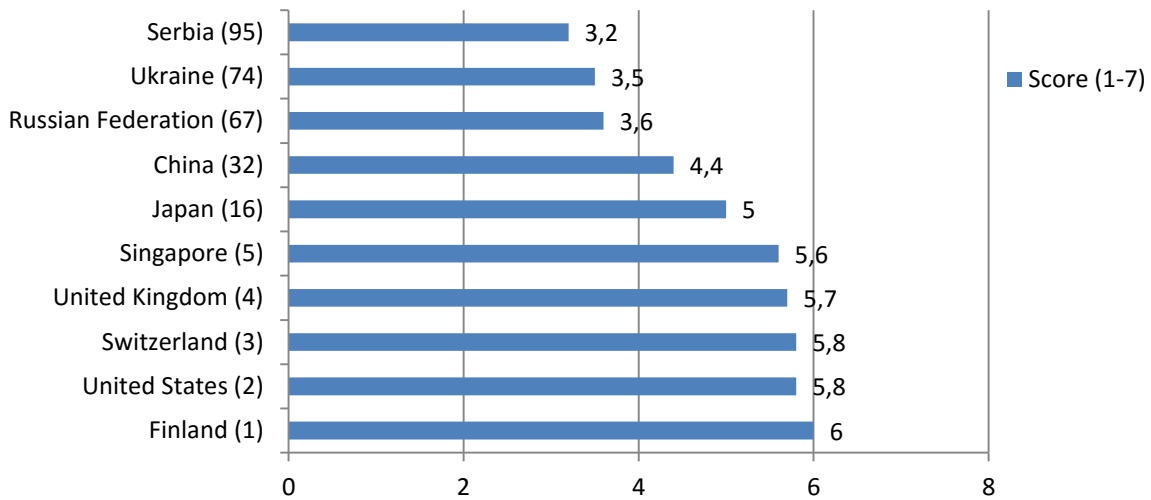


Fig. 3. Dynamics of the several countries' ranks by the sub-pillar "University-industry collaboration in R&D" in 2014-2015

Source: calculated by the authors on the basis of (WEF GCR 2014-2015)

We share the majority of scientists and professionals point of view who fairly include the following positions to major contemporary challenges and preconditions of deepening scientific, educational and productive interaction (Fedulova, 2009; Heyets, Semynozhenko, 2006; Mudraya, 2010):

- exhaustiveness of the national economy existing low structure opportunities, need for a substantial increase of its efficiency;
- economy becomes innovative, which is based on the new products creation, from the replicative one based on the production of large quantities of similar goods;
- dynamics of the economic development increasingly depends on the state of technological innovations development and implementation;
- the innovative process is not a result of one or several organizations activity, but of more significant in their number;
- change of ideas about the relationship between economic agents (a fundamentally new aspect becomes the combination of competition and cooperation, cooperation and rivalry);
- availability of powerful scientific-technical potential and the developed educational

system of Ukraine, which are able to provide the economy by highly qualified personnel, modern scientific and technological developments on the condition of increasing the innovative interest from the production side.

Regarding the existing departmental, organizational and economic disunity of science, education and production in Ukraine, insufficient level of investment support of scientific and technological, and innovative activity, low innovative activity of industry, the measures are needed that will allow without significant financial investments rationally exploit potential and possibilities of research institutions, educational institutions and production in the sphere of training of highly qualified personnel, development and refinement of scientific-technical products to their commercial use.

Implementing new instruments of the financial support of integration processes and increasing the budgetary funds efficiency in the area of science can be made with the help of: the grants system development; optimization of the structure of budget expenses on science in the direction of increasing the share of program-targeted funding under the state target scientific and scientific-technical programs, government contracts for

R&D; developing mechanisms of interaction between participants in the innovation process in a model of public-private partnership; implementation of integrated, multidisciplinary researches by organizations from various sectors of science; targeted financing of effective bilateral and tripartite organizational forms of integration of science, education and production.

4 PUBLIC MANAGEMENT OF INTEGRATION OF EDUCATION, SCIENCE AND PRODUCTION IN THE CONTEXT OF SYNERGETIC PARADIGM

Knowledge economy as the main factor of the economic development determines an individual, the intellectual factor, human capital and the creative potential. In turn, the human potential is determined by the level of knowledge, skills, competencies and, most importantly, the ability of people to interact coherently in the processes of production and realization of the social product, i.e. ability to generate synergetic effects in the social development. The majority of modern scholars think that synergy of interactions of scientific, innovation and technology, human, investment and business potentials is the alternative to competition as the main driving force of the economic development (Fedulova, 2009; Heyets, Semynozhenko, 2006; Roco, Bainbridge, 2013). In addition, the synergetic action of driving forces of the economic development at the global level, even in the short term, is unpredictable, and is poorly predictable at the national level, in the medium term, and is not predictable in the long run. The uncertainty in the economic development increases the social and economic risks in the government programs adoption and implementation.

The use of an interdisciplinary approach in the research of social transformations, openness and non-linearity of the national economy development, irreversibility of institutional changes and macroeconomic processes, which are characterized by instability as different from equilibrium, cause an objective need for using the synergetic approach to strategic public management.

It is important to evaluate synergetic effects in complex socio-economic systems as a result of the cooperative interaction between its components, which changes the system quality, the trajectory of its development. The synergetic effects formation in such systems is provided as a result of the system synthesis of technical, technological, organizational, economic, social, environmental, managerial factors including the constantly changing temporal and spatial factors (Ravinskij, 2006).

The set of accumulated in Ukraine financial, economic, infrastructural, technological, environmental, social and managerial problems has led to a complete deregulation of the national economy and has put forward the economic science a need for management strategies of the socio-economic development, which would have made it possible to guide actively the self-contained own movement with minimal losses. One of the strategic directions is to modernize the socio-economic system based on the use of new technologies and innovations in all spheres of human activity, synchronization of nature, economy and human development. The defining element in the system of public anti-crisis management of the economy of Ukraine should be determined by the balance of human and technological development, which will adjust the target priorities of economic restructuring on the basis of innovative changes, decide on macroeconomic multiplier effects of synergetic effect of their interaction synchronization. As the main strategic task for implementing the national economic policy of Ukraine it is proposed to form the system of mechanisms of the technological development and social policy interaction based on creating a modern balanced economic complex with a strong corporate and cooperation framework, which will ensure a tight cooperation of local entities and beneficial integration into the world economy (Table. 3). The new national concept should be based not only on leadership and management, but also on organization. In the complex of instruments and mechanisms of formation and implementation of national concepts of innovative and technological development the special place should be given to Foresight-methodology.

It is the basis of coordination of priorities of innovative and technological development in the

framework of a constructive dialogue of the state and society, involvement of wide business circles in their realization, formation of permanent "playgrounds" of interaction between science, education and production. The nonlinear character of the economy behaviour becomes the

increasingly obvious fact. There is a need to develop new methods of public management based on the program-targeted direction traditions and distributed on the basis of considering the synergetic paradigm of development.

Table 3. The system of public management of balancing human and technological development

Elements	Contents			
Provision	Program-targeted	Organizational-economic	Informational, predictive and analytical	Institutional
Mechanisms	Scientific and technological Foresight; a dialogue of the state, business, science	Protection of intellectual property; technology transfer; accreditation of innovative products; motivation of modernization; sanitation of obsolete production; formation of innovative management competencies	Technological forecasting (global, systemic); monitoring of effects; expertises of consequences	Government procurement; public-private partnership; business angels; incentives (tax breaks, loans, subsidies)
Instruments	Technological platforms; road maps; benchmarking; priority contours of technologies; technological framework conditions	Tenders; technological parks; technopolises; sociopolises; clusters; business incubators of innovative enterprises	Circular of accreditation; catalogue of scientific and technological achievements	Contracts; agreements; concessions; joint ventures; leasing; outsourcing; franchise
Results	Paradigm; concept; strategy; programs; policy	Investment climate; high-tech industry; system of industrial production; national innovation system; innovative infrastructure	Assessment system of potential; communication platform; information system of popularizing	Innovative projects of national importance; system of financial support (venture capital, state budget, investment funds); corporate and co-operative framework

Source: developed by the authors

Recognition in the system of anti-crisis public management of the synergetic paradigm that takes into account variability, alternativeness of the modern market economic systems development with a lot of bifurcation points will solve the strategic task of reproducing the national system with involving the business elite in the regulatory processes of human and technological development on the basis of public-private partnerships.

The strategy of balancing human and technological development of Ukraine should be based on transition from balancing between alternative objectives of social security and economic growth - from integration of improving the welfare of the nation and each citizen to development of the dynamically developing competitive national economy. The main strategic goals should be: providing the advanced development of human capital as the key competitive factor in the modern economy; the fullest development and use of national intellectual

and entrepreneurial potential through integration of science, education and production; spreading social effects of the economic growth in the form of improving real income and purchasing power; strengthening social protection; improving living conditions.

The synergetic approach to the methodology of public management gives a chance for a modern interpretation of such categories as "crisis", "uncertainty", "space", "time", "order", "chaos", "order parameter", "forecasting", "risks", "irreversibility", "nonlinear dynamics", "complexity" and etc. A synergy of science allows paying attention to such phenomena, which are in our lives, in the scientific revolution, in the conceptual apparatus, and taking into account in developing mechanisms, methods and management tools.

Effectiveness of public regulation and strategic management will not be achievable in the absence of the reasonable value choice, a clear definition of purpose, vision and ways of effective mechanisms to achieve the set objectives. Without appropriate strategisation of the national economy there will be a few drifting controlled state, a permanent dependence on volatility of external factors and external geopolitical interests.

5 CONCLUSIONS

Integration of universities, research organizations and high tech enterprises should ideally be complex, combine all known areas of scientific, educational and innovative activity, and create the appropriate synergetic effect. Ultimately, it should be directed to formation and development of a certain industrial and economic cluster, which is a priority for the region and / or the industry. The cluster, which is formed and developed, should be profile oriented in the direction of activity and innovation-oriented by its nature and the forms of interaction of integration processes participants.

To enhance the scientific research effectiveness in Ukraine it is advisable:

- to create at the national level a Coordinating Centre for Research of all subjects' scientific activity: universities, structural units of National Academy of Sciences of Ukraine, branch academies, the sector of "production" science;
- to create a network of scientific parks that combine the main participants' interests: high

tech companies, academic departments, university departments and faculties, researchers and businessmen.

In developing the strategy and the policy for the science development in Ukraine today the following priorities should be considered:

- concentration of resources on conducting fundamental and applied researches in areas where Ukraine has the considerable scientific, technological and industrial potential;
- implementation of the program-targeted approach to all scientific sphere sectors financing;
- implementation of market mechanisms of supporting new technologies, promoting small and medium enterprises in scientific and technological development;
- bringing the system of legal protection of intellectual property in accordance with international standards and introducing intellectual property into production;
- development and implementation of modern information technologies.

Integration of science, education and production is the important instrument of public management of balancing human and technological development in the synergetic paradigm. Adding the large-scale continuous implementation of innovations in technology, education, science to situational, organizational and investment development factors is able to bring Ukraine in 2050 to the upper limit of social productivity of advanced countries. In turn, it is possible if to balance human and technological development due to the synergetic effect.

The key element of coordinating research activities in the fields of science and education in the state is the monitoring researches. It should also be developed the methodological basis of evaluating the scientific research performance in the field of science and education by developing the rating assessment systems and enriching the existing complex performance indicators and criteria of the integrative nature.

Coordination of scientific activity in the fields of science and education will contribute to its effective implementation and operational control over execution of scientific and research programs, exclusion of small topics, duplication, and repetition of the scientific projects. It should be

a set of interrelated scientific and organizational, socio-economic and legal impacts on autonomous creative teams and individual researchers working in this field with the aim of implementing harmonious interests of the state, society, economy, universities, research institutes (organizations) and scientist in achieving maximum effectiveness of efforts and means to achieve the objectives of scientific and research work.

WORKS CITED

- Amosha, O.I., Vishnevskiy, V.P., & Zbarazska, L.A. (2012). *Neoliberalization and new industrial policy of Ukraine [Neoliberalizatsia i novaja promyshlennaja politika Ukrainy]. Economy of Insutry [Ekonomika promyshlennosti]*, Vol. 57-58, No. 1-2, Pp. 3-32.
- Bavykhin, G.A. (2003). *Management of education development: organizational and economical aspect [Upravlenie razvitiem obrazovania: organizatsionno-ekonomicheskij aspekt]. Moscow, Ekonomika. 428 p.*
- Bazhal, I. (2009) *Technological Determinism of the Knowledge Economy Building in Transitive Countries. KSI Transactions on Knowledge Society. A publication of the Knowledge Society Institute. Vol. II, No.3, Pp. 13-16.*
- Bulanova-Toporkova M.V. (Ed.). (2002). *Pedagogy and psychology of high school: Textbook. Rostov-na-Donu, Fenix, 544 p.*
- Grodskiy, S.V. (2012). *European scoreboard of the innovative development and Ukraine [Evropejske tablo innovatsijnogo rozvytku ta Ukraina] // Innovative economy, No.12, Pp. 28-31.*
- Chiswrok, B.R. (1974). *Income inequality: Regional analysis within a human capital Framework. N.Y. XVI. P. 30.*
- Denison, E.F. (1967). *Why Growth Rates Differ. Post-War Experience in Nine Western Countries. Brookings Institute, Washington D.C. 494 p.*
- Fedulova, L.I. (2009). *Knowledge economy [Ekonomika znan]: handbook [for students of HEE]. NAS of Ukraine; Insitute for economics and forecasting of NAS of Ukraine. Kyiv, PPC "Ekvpres", 600 p.*
- Fey, C., & Birkinshaw, J.M. (2005). *External knowledge sourcing, governance mode, and R&D performance. Journal of Management, 31(4), Pp. 597-613.*
- Heyets, V.M., & Semynozhenko, V.P. (2006). *Innovative perspectives of Ukraine [Innovatsijni perspektyvy Ukrainy]. Kharkiv, Konstanta, 272 p.*
- Ivanov, V.N., Ivanov, A.V., & Doronin A.O. (2002). *Management paradigm of the XXI century [Upravlencheskaja paradigma XXI veka]: training guide for HEE. Tom 1. Moscow, MSIM, 180 p.*
- Kostyuk, S.G. (2011). *On integration of the educational process at the university and innovative activity [Ob integratsii obrazovatel'nogo protsessa v vuze i innovatsionnoj dejatel'nosti]. [In:] Innovative processes and corporate management [Innovatsionnyje protsessy i korporativnoje upravlenie]: Collection of articles of the III International distance scientific and pratical conference; V.V. Apanasovich (ed.). BGU, Institute of business and management of technologies, Minsk, National Library of Belarus, Part 1, 312 p., Pp. 252-256.*
- Mudraya, O.V. (2010). *Analysis of the domestic practice of interaction between science, education and business [Analiz otechestvennoj praktiki vzaimodejstvia nauki, obrazovania i biznesa]. [In:] Mechanisms of managing the socio-economic systems development [Mekhanizmy upravlinnia rozvytkom sotsialno-ekonomichnykh system]: monograph; O.V. Martiakova (ed.). Donetsk, SHEE "DonNTU", 688 p.*
- OECD. (1996). *Lifelong Learning for All. Paris: OECD.*
- Ravinskij, R.V. (2006). *Synergetics and development processes of complex systems [Sinergetika i protsesy razvitia slozhnykh system]. Issues of Philosophy [Voprosy filosofii], No. 2, Pp. 162-169.*
- Roco, M.C., & Bainbridge, W.S. (2013). *The new world of discovery, invention, and innovation: convergence of knowledge, technology, and society. Journal of Nanoparticle Research, No.15.9, Pp. 1-17.*
- Shultz, T. (1960). *Capital Formation by Education // Journal of Political Economy. Vol. 68.*
- Twiss, B. (1980). *Managing Technological Innovation, 2nd ed. London, Longman.*
- World Economic Forum. (2015, December 12). *The Global Competitiveness Report 2010-2011.* http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2010-11.pdf

World Economic Forum. (2015, December 12). The Global Competitiveness Report 2011-2012.
http://www3.weforum.org/docs/WEF_GCR_Report_2011-12.pdf

World Economic Forum. (2015, December 12). The Global Competitiveness Report 2012-2013.
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf

World Economic Forum. (2015, December 12). The Global Competitiveness Report 2013-2014.
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

World Economic Forum. (2015, December 12). The Global Competitiveness Report 2014-2015.
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf

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DEVELOPMENT OF THE RUSSIAN AGRO-INDUSTRIAL COMPLEX IN THE FOOD SECURITY CONTEXT

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Abstract

The article examines the topical issues related to the problems of agricultural products import substitution in Russia under the sanctions, and as a result, food and economic safety ensuring. The importance of state support for agribusiness in terms of import substitution and the relevance of regulatory documents adopted by the RF Government aimed at strengthening Russia's participation in international cooperation in the field of agriculture and fishery as well as food safety are determined. The article analyzes the industries with the maximum potential of import substitution. It is noted that the critical points of import substitution in the production of food products are in the sphere of dairy industry and 10 % reduction of Russian agriculture meat imports can be made up through the development of poultry production, and probably pork production. As for beef, import substitution here requires an increase in the number of cattle, which has been declining in recent years. The potential of import substitution (resource, labor, property, financial and others) of a geographically separate formation (region) is considered in detail, the import substitution strategy based on the development of production in general, agricultural products quality and safety improvement, modern innovative technologies used in the agro-industrial complex enterprises are designated. The role of gradually developing import substitution process, which in the future will contribute to the growth of employment and, as a consequence, to the reduction of unemployment and improvement of living standards, growth in demand for agricultural products of domestic production, which in turn contributes to the conservation of foreign exchange earnings within the country and to the growth of foreign exchange reserves and improvement of the country's trade balance. The need for the transition from the import oriented development to import substitution phase in the Russian regions is grounded. The conclusion is made about the need for an integrated approach to the implementation of a coordinated program of activities aimed to protect domestic producers by substituting imported food products with domestic goods.

Keywords: *import substitution strategy, agricultural products, competitiveness, resource potential.*

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1 INTRODUCTION

The existing geopolitical situation, in particular the sanctions of the EU, the USA and a number of other countries towards Russia, dictates the need to adapt the agro-industrial complex (AIC) development strategy to the new conditions,

particularly in the aspect of import economic relations. First of all, it is necessary to interpret the category of "import substitution". It is a system of methods to reduce import dependence aimed at overcoming actual or potential shortage of imported products. It allows to improve the stability of national production, creates additional demand for domestic resources, reduces the risks of goods supply (Semykin, Safronov, & Terekhov, 2014). To achieve this aim fully, a number of measures are required that would ensure the profitability of import substitution for the whole range of key actors: the state, the society and the business. Development of territorial (regional) programs of import substitution should be the basis of this set of measures (Gusakova, 2014).

On October 2, 2014 the prime minister Dmitry Medvedev signed the Order No. 1948-r "On the approval of the plan of measures ('road map') to assist import substitution in agriculture for 2014-2015-s" (TPP-Inform, 2014).

The approved "road map" contains a complex of measures (including development of regulations) aimed at the achievement of import substitution indicators established in the State program of the development of agriculture and regulation of agricultural markets, raw materials and food stuff for 2013-2020-s and the State program "Development of Fishery Complex". The plan provides improvement of the mechanisms of customs and tariff regulation of the import of main types of agricultural, fish and other products from the water biological resources taking into account Russian membership in the WTO and in the Customs union.

The "road map" includes measures to increase the efficiency of agricultural land use and improvement of the state veterinary and phytosanitary control (supervision), including measures to create the state automated information system of the early notification in case of detection of veterinary and sanitary dangerous goods.

2 ANALYSIS

The made decisions are directed to the activation of participation of Russia in the international cooperation in the field of agriculture and fishery, and food safety. Realization of the provisions of the plan will allow to provide the

increase in agricultural production, raw materials and food stuff and decrease in the dependence of the domestic food market on import deliveries of meat from 21.6 to 7.7%, milk and dairy products from 23.6 to 16.6%, vegetables from 14.6 to 10.1% by 2020.

The dairy branch is one of the most sensitive to import. If the volume of import of whole-milk products is rather small, then, for example, that of cheese reaches a half, of butter - 40% (Kostrova, 2014). With the introduction of response sanctions the dairy branch is in the center of attention at all government meetings on import substitution. However, the situation will most likely not change in the shortest possible time, since the increase in the productive herd of dairy cows needs time. Therefore, despite all optimistic statements that the Russian producers will be able to fill the market with domestic products quite fast, nevertheless import from the countries not included in the prohibition list will still be necessary.

The potential of import substitution of a territorially isolated formation (region) is defined as a set of the resource potential, the institutional environment, the organizational capital and the volume of domestic demand. Resource potential is treated as a set of factors of production of the agents of the basing territory, and also mechanisms of their involvement and use in the public reproduction as an integral characteristic of the condition of the regional economy defining its abilities to the production of economic and social value. If the presence of resources in the regional economy acts as a necessary condition for the formation of its resource potential, then their complementarity, interaction and adequacy to the condition of the factors of internal and external environment of a territorial formation is its sufficient condition.

Effective realization of the resource capacity of the region is possible at the presence of organizational routines, procedures and algorithms of actions and processes, as well as the principles of formation of communications between the residents and (or) nonresidents of the regional economy, and also the ability to create, integrate and reconfigure these routines, procedures, algorithms and principles. The structure and qualitative characteristics of the factors of production making the resource

potential of a territorial formation define a type of economic activity concerning which the use of import substitution tools is expedient.

In spite of the region type defined on the basis of identification of the dominating tendency of development of labor potential, the positive steady dynamics of labor productivity acts as a necessary condition of application of import substitution strategy that provides decrease in a share of labor in expenses and increase of the importance of such factors as introduction of logistic models, existence of the enterprises and organizations carrying out basic and applied scientific researches and developments, degree of utilization of production capacities, volume of domestic demand. In turn, the steady growth of the last is provided due to the cumulative expenses including expenses of the state, directed to the stimulation of demand for domestic products and Russian export.

The capital belongs to the property potentials as a component of the resource potential of the regional economy and potential of import substitution. According to the official data, the coefficients of utilization of production capacities in 2014 made 66%, 64% and 56% for the sectors of production, processing and distribution respectively, at the same time 20%, 14% and 12% of capacities in these sectors are completely worn-out (GKS, 2015).

Thus, a rather low level of free capacities and high degree of their deterioration are characteristic for the Russian economy that defines need for the considerable volume of investments to realize the import substitution strategy. At the same time in 2012 the specified sector achieved the post-crisis maximum of the level of loading and made 69.5%, and was characterized by the additional growth of about 5% at its contribution into the RF GDP gain of 0.4 i.c. (Sberbank, 2015).

However, nowadays there is no potential demand for the gain of a cumulative product of the extracting sector. Thus, the high level of loading of production capacities and deterioration of the funds of this sector of the Russian economy can't provide the essential effect of import substitution. At the same time there are reserve free capacities in the processing sector the additional loading of which, according to expert estimates, can provide a gain of outputs for 2.5% that will make 0.3 i.c. of

the RF GDP gain and 1.4 i.c. gain of industrial outputs. Thereby, a type of economic activity concerning which the use of instruments of import substitution can provide corresponding effect is defined by the state of the resource potential of a region.

Financial resources of the region as a component of the resource potential of the regional economy and potential of import substitution includes financial resources which the region and its residents possess, and also the resources which can be used to accomplish the functions of the regional governing bodies.

Federal and regional target programs and credit subsidizing are used as tools for the realization of the strategy of import substitution, and in the agro-industrial complex untied support of agricultural producers in the field of plant growing, compensation of a part of an interest rate for the investment credits (loans) to develop plant growing and processing, and also development of infrastructure and logistic providing of the markets of plant products, compensation of a part of an interest rate for short-term credits (loans) for the development of animal husbandry, processing and sales of products of animal husbandry, etc. have been used since 2013.

According to the official data, profitability of agricultural organizations in 2013 made 7.3%, without the subsidies this indicator is negative – 5.6% (Sberbank, 2015). The pool of sources of financing of import substitution strategy includes Fund of the development of the industry, SC “Bank for the Development and Foreign Economic Affairs”, its affiliated funds and banks, JSC “Russian Bank of Support of Small and Medium Business”, JSC “Federal Corporation on the Development of Small and Medium Business (SMP Corporation) (the last provides financial guarantees for the sum up to 70% of the bank credit if the borrower doesn't have enough pledges on the corresponding project), etc. Development of the instruments of use of financial resources of pension funds and insurance companies for accurately structured criteria and guarantees of banks and/or state is obviously necessary.

Organizational resources of the region as a component of the resource potential of the regional economy and potential of import substitution are presented by a set of

organizational and economic relations between residents and (or) nonresidents of the regional economy concerning allocation and re-allocation of the assets for the purpose of production, distribution, exchange and consumption of an added value. The structure of the organizational resources includes the objects of intellectual property and other intangible assets (including a territorial brand) used in the course of reproduction, the database, information systems, culture type, etc.

Institutes that have to prevent preservation of technical and technological base and stimulate food and process innovations, and also initiate replacement of critical import technologies that is a necessary condition for the effective functioning of system of food, military, etc. safety of the state act as components of import substitution potential.

The institutes preventing rent-oriented behavior of the officialdom of public authorities at making decisions on the directions of the public expenditures and development of federal and regional target programs and also the institutes causing compliance of the manufactured goods to the requirements of technical regulations and standards are among the institutional component of import substitution potential.

Further development of agriculture in the conditions of dependence on import has become a serious threat for food safety of Russia. It is impossible without strengthening the role of the state and support of this important sphere of economy.

One of such support instruments are non-tariff methods of regulation of the state foreign trade policy. The greatest distribution in international trade has been gained by the methods of quantitative restriction of import and export. Among them are: quoting; licensing; voluntary export restrictions and trade embargo.

So, according to the Decree of the President of the RF the food embargo in the form of total ban on the deliveries of beef, pork, fowl, fish, cheese, milk, fruit and vegetable products from Australia, Canada, the EU, the USA and Norway for a period of one year has been introduced since August 7, 2014.

Thus, high import dependence of the country concerning some types of food stuff significantly

reduces its food and economic safety because foreign purchases of food stuff and raw materials for their production in large volumes put additional pressure upon limited currency resources. It is obvious that importing agricultural food products, Russia in a way finances not domestic, but foreign producers, thereby weakening its own role in the world economy.

It should be noted that the strategy of import substitution in the agricultural sector of economy has to rely on the development of all production process, improvement of the quality and safety of food products, modern innovative technologies applied at the enterprises of agrarian and industrial complex.

At the same time step-by-step developing process of import substitution will promote the growth of employment of the population and, as a result, decrease in unemployment and increase of living standard; increase of the level of scientific and technical progress in the agrarian branch; strengthening of economic and food safety of the country; increase in the demand for agricultural products of domestic production that in turn stimulates the development of agrarian and industrial complex of the country, expansion of its production capacities; preservation of currency revenues within the country, growth of currency reserves and improvement of trade balance of the country.

The existing geopolitical situation dictates the need for and even inevitability of transition of Russia from import-oriented development to import substitution phase (Faltsman, 2015).

All the listed above import substitution factors, including sanctions, define its compulsory character that is not connected with growth of competitiveness of domestic products. Meanwhile, decline in quality and possible price growth will be a consequence of forced replacement of import by noncompetitive production.

Difference of foodstuff from other products consists in the fact that their import is limited not by American-European, but by Russian response sanctions. Besides, the world food stuff market satisfies primary requirements of the population therefore the food safety is the object of geopolitical, supranational value.

In 2012 Russia satisfied the fourth part of consumption of meat and meat products due to the import. In the previous years the share of import was higher. It demonstrates that the Russian meat industry has entered an import substitution phase.

The most important reason of import substitution of meat and meat products was breakthrough of Russia in the field of fowl meat production which increased by 5.4 times – from 766 thousand tons in 2000 to 3625 thousand tons in 2012. At the same time the import of fowl reduced by 40% while deliveries to domestic market increased by 2.2 times. The import share in the deliveries decreased from 61% in 2000, to 17% in 2012 (Galeyev, Radosteva, & Bartova, 2015).

It should be noted that intensive process of import substitution was taking place before the introduction of sanctions and that is one of the achievements of the AIC. At present the population of the country is almost completely provided with fowl, and its import falls under the Russian sanctions. Long-term forecasts till 2021 at zero import provide noticeable increase in the production of fowl the fourth part of which can be exported.

Peculiarity of the substitution of import of meat and dairy products from the EU countries is that it is partially feasible due to the deliveries from the third countries, including the Latin American countries (Radchenko, Sukhorukova, Parshina, & Volkov, 2015).

As a result, critical points of import substitution in the production of foodstuff are in the sphere of the meat and dairy industry. The Russian agrarian

and industrial complex can win back the ten-percentage reduction of import of meat planned above due to the development of production of fowl, and perhaps, pork. As for beef, import substitution demands increase in the number of cattle which has been reducing in recent years.

The reached high level of self-reliance in the production of grain (bread, grain), potatoes (the second bread), fowl and eggs (protein for poor) allows protecting the population from the possibility of hunger. But at the same time, according to some experts, if domestic production of meat and dairy products is not increased, the consumption of proteins of animal origin per capita will probably tend to decrease.

3 CONCLUSION

Critical points of future development of other basic foodstuff are not in the sphere of import substitution but mostly in the reorientation to export growth. The Russian agrarian and industrial complex has already made such change of a growth phase in grain production and production of fowl.

Thus, import substitution as a type of economic strategy and agro-industrial policy of the state is directed to the protection of a domestic producer by the substitution of the imported foodstuff with goods of national production. Increase of competitiveness of a domestic production by means of stimulation of technological modernization of production, increase of its efficiency and development of new competitive types of production with rather high added value has to become the result of import substitution.

WORKS CITED

- Faltsman, B. K. (2015, Jan). Critical points of import substitution policy. *Russian Journal of Entrepreneurship*, 16(2), 241-262. Retrieved from <https://bgscience.ru/com/lib/5227/>
- Galeyev, M. M., Radosteva, E., & Bartova, E. (2015). Vozmozhnosti importozameshcheniya v sisteme prodovol'stvennoy bezopasnosti Rossii. *Naukovedeniye*, 7(3). Retrieved from <http://naukovedenie.ru/PDF/88EVN315.pdf>
- GKS. (2015, May 15). *Production indices by economic activity*. Retrieved from Russian Federation Federal State Statistic Service: http://www.gks.ru/bgd/regl/b15_12/IssWWW.exe/stg/d01/15-03.htm
- Gusakova, E. (2014). Import substitution is a priority objective of the AIC development. *Fundamentals of Economics, Management and Law*, 18(6), 12-17.

- Kostrova, A. (2014, Aug 22). *Prozhivom bez importa?* Retrieved from Nevskoye Vremya: <http://nvspb.ru/tops/projivem-bez-importa-55174>
- Radchenko, T., Sukhorukova, K., Parshina, Y., & Volkov, A. (2015, Aug.). *Prodovol'stvennoye embargo: importozameshcheniye i izmeneniye struktury vneshney trgovli. Byulleten' o razvitii konkurentsii*(11), 24. Retrieved from <http://ac.gov.ru/files/publication/a/6007.pdf>
- Sberbank. (2015, May 05). *Analitika i issledovaniya*. Retrieved from Sberbank: <https://www.sberbank.ru/ru/about/analytics>
- Semykin, V., Safronov, V., & Terekhov, V. (2014). *Import substitution as an effective tool for the optimal development of market economy. Bulletin of Kursk State Agricultural Academy*(7), 1-7.
- TPP-Inform. (2014, Oct 09). *Utverzhdena «dorozhnaya karta» po importozameshcheniyu v sel'skom khozyaystve*. Retrieved from TPP-Inform: <http://old.tpp-inform.ru/news/17114.html>

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THE IMPORTANCE OF STATISTICS FOR CRISIS MANAGEMENT

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Abstract

The security on the European Union territory is influenced by various elements such as: climate, nature, and society and their crisis events. The global warming phenomenon is responsible for increasing number of disastrous floods, fires, storms, or extremely high and long lasting heats lacerating lots of EU members. The health and lives of European population are also threaten by human initiated activities. These are industrial breakdowns and road accidents as well as war conflicts and terrorists attacks on Ukrainian Russian borderland, in Syria, Libya, and Afghanistan or in Eritrea. By its negative causes: mass illegal and non-controlled migration are affected not only Greece, Turkey, Macedonia, Serbia, Slovenia, Croatia, Austria, Germany and Scandinavia but also all EU Member States including the Slovak Republic. Almost one million of migrants in 2015 forms a mass of war refugees, economic migrants and infiltrated terrorists, who represent the biggest menace for Europe. The terrorist attacks in Paris prove the importance of fight against terrorism and preservation of Schengen borders to protect the European territory and its citizens. The authors of the paper analyse the importance of statistical data provided in the Slovak Republic which can be used as a basis for measurements and comparison of objective component of the security in county districts. They point at present situation of using statistical data by crisis management bodies of public administration. At the same time, they identify gaps in application system of accessible data that can serve as a basis for decision making process in prevention phases within crisis management of county districts. Final part of the paper presents some proposals of solutions to increase the statistical data assimilation in crisis management of public administration not only in the Slovak Republic but also on European territory.

Key words: Security, objective component of security, security risks, county district, crisis management

1 INTRODUCTION

Security on the European Union territory is influenced by climate-natural and social crisis situations. Especially the global warming

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phenomenon is responsible for increased number of disastrous floods, fires, hurricanes or extremely high and long-lasting heats affecting the EU Member States as e.g. Serbia, France, Italy as well as Greece, Germany, Poland, Czech Republic and Slovakia.

Health and lives of European population are also threatened by human initiated activities. These are industrial breakdowns and traffic accidents as well as war conflicts and terrorists attacks on Ukrainian - Russian borderland, in Syria, Libya, and Afghanistan or in Eritrea. By its negative causes: mass illegal and non-controlled migration are affected not only Greece, Turkey, Macedonia, Serbia, Slovenia, Croatia, Austria, Germany and Scandinavia but also other EU Member States including the Slovak Republic. Almost one million of migrants in 2015 forms a mass of war refugees, economic migrants and infiltrated terrorists, who represent the biggest menace for Europe. The terrorist attacks in Paris and Brussels prove the importance of fight against terrorism and preservation of Schengen borders to protect the European territory and its citizens.

In spite of the European Council and the EU Member States ambition to solve mentioned problems they still cannot manage to reach desired status.

The security becomes a key factor of human lives in their homes, cities, regions and states. The security becomes top priority of governmental policies.

A basic condition for optimal leading of crisis processes by managers with the aim of reaching desired level of citizens' security is to identify objective security level.

Statistical data collected and published on websites of relevant ministries and county administrative departments as well as statistics collected by the Statistical Office of the Slovak Republic and published in Statistical yearbook of the Slovak Republic should become basic stones to determine objective security of citizens in corresponding territorial regions.

The present status, structures and forms of statistical data publishing do not enable to compare the objective part of the county districts' security.

The competent authorities of public administration in the Slovak Republic do not examine for the security level of county districts however they are by law (Kovac, Gasparovic, & Meciár, 1994) obliged to work out a complex document – an analysis on possible extraordinary events on the territory of respective county district/region.

Information on objective component of the security could be a part of this document's structure which could serve as a basis to compare the security level among the county districts as well as to adopt measures for security improvements.

2 METHODOLOGY

The aim of the paper is to provide reader with the overview of present possibilities to use statistical data, to identify positives and negatives and to suggest solutions.

The first part of the paper is dedicated to theoretical principles and legal frame of the topic compiled of national and international publications as well as legal norms and strategic documents of state and EU security.

The analysis of current state of collecting statistical data by relevant ministries is the core of the paper. The applicability of present structure and forms of reported indicators of statistical data to measure and to compare the security level by different county districts of the Slovak Republic are evaluated in the paper, too. It critically evaluates present gaps in the system of statistical data from the view of evaluating processes of crisis managers at partial level of public administration in the Slovak Republic.

The part of the paper with solutions offers possible solutions to unify indicators of statistical data, that enable to evaluate and to measure objectively the security of county districts on national and international level.

The contribution of the paper is a fact that it deals detailed with this topic which is usually presented and harmonized just by a ministry and on its level. It offers a frame for deeper research of this topic nationally and internationally. Finally, this information can serve the EU citizens as a base for evaluation of the security of free movements in Schengen area.

Standardised scientific methods as analysis, synthesis as well as mathematical statistical

methods, comparative methods, methods of scientific induction and deduction are applied in the paper. The methods of scientific abstraction and description are applied in the paper, too.

3 THEORETICAL STARTING POINTS AND LEGAL FRAME OF THE TOPIC

Basic human motives are his/her *vital demands*. They are specified as a lack or an over-supply. It is a situation of a person diverging from his/her vital optimum. According to Abraham Maslow the security is one of the most important needs of a human. He placed it on the second position of vital demands list right under the physiological needs (Tyrala, 2002).

Security is characterized by Ondrejcsak, R. (2004, p. 238) as “an absence of threats for basic values“ of human rights and freedoms. Similar Simak, L. (Simak & et al., 2004, p. 44) understands *security* as an opposite of dangers and considers it for “an aspect of social, natural, technical and technological system which based on specific internal and external conditions enables the fulfilling of respective functions and their growth for human and social interests“.

New understanding of security is presented by Buzan in (Buzan, Ole, & Wilde, 1998, p. 3). Security is a special way of politics and can be applied on large variety of questions and tasks. He understands security as a sector task including the fields of military security, political security, and economic security, as well as social and environmental security.

Horak, R. (Horak, Danielova, Juricek, & Simak, 2015, p. 23) presents security as “a complex of measures to achieve internal security and order in a state, to secure basic human rights and freedoms against different threats...“

Constitutional act of the Slovak Republic No. 227/2002 Col. section 2 Article 1 defines *security* as „a state of things where peace and state security are preserved as well as its democratic order and sovereignty, territorial integrity and inviolability of states borders, basic rights and freedoms and where life, health, property and environment are protected, too“.

If using Simak’s definition of county district’s security then the security of county districts can be

understood as an aspect of social, natural, technical and technological system which in specific internal and external conditions of territorial unit (state, region, district, and municipality) enables the fulfillment of determined functions and their growth in favour of human beings and society.

Based on results of long lasting surveys realised among the citizens of the Slovak Republic on the perception of the security in county districts and on the above stated definitions could be concluded that *total territorial security* is a conjunction of partial components of the security especially physical, social, economic, health and environmental security. These components influence the quality of citizen’s life the most. Therefore, they should be of interest for public administration authorities and their crisis managers.

The security of county districts is composed of subjective and objective components. *Objective component of the security* can be expressed by the number of cases where the security was threatened within specific time period, e.g. a year. For example: number of criminal cases, unemployed person, traffic accidents, industrial breakdowns, fires, floods, various epidemics etc.

Subjective component of county district security is the level of security observed by its citizens. Questionnaires can be applied to gain information of the subjective perception. The respondents answer the questions on various security components by choosing numeric value from presented scale.

Index of citizen’s security incorporated objective and subjective parts of the security could be one of the possibilities to express the general level of county district security.

Successful application of such index has been already realised in Canada, Germany, France, Australia and in neighbouring Czech Republic. At the present the most detailed system to measure the security of county districts can be found in Canada. Centre for International Statistics of Canadian Council for Social Growth in cooperation with Insurance Committee of Canada have worked out a model so called *Index of citizen’s security* (Kovac M. , 2015, pp. 43-54) in 1998. Index of citizen’s security has been understood as a combination of economic,

physical and health security. Each of them was expressed by selected subjective and objective indicators. Objective statistical data, with assigned importance value of security perceived by citizens based on survey results, have been used as a basis for common security index (Kovac & Hudakova, 2014).

4 ANALYSIS OF CURRENT STATUS OF STATISTICAL DATA IN THE SLOVAK REPUBLIC

Relevant statistical data on partial security components are basis to determine the security level of county districts.

Such data can be gained from public accessible databases of Statistical Office of the Slovak Republic and its regional offices, and websites of relevant ministries and other authorities of state administration. To compare the data with other EU Member states Eurostat databases are accessible, too.

Statistical Office of the Slovak Republic is main body of state administration of the Slovak Republic responsible for statistics. Its position is described in Act No. 575/2001 Coll. on government organisation and central state administration. The tasks of the Statistical Office

are specified in Act No. 540/2001 Coll. on state statistics and its latest amendments. More detailed are the tasks determined in other general binding legal acts. Main bureau is situated in Bratislava. There are eight regional bureaus of the Statistical Office of the Slovak Republic in Bratislava, Trnava, Nitra, Trenčín, Žilina, Banská Bystrica, Košice and in Prešov.

The Statistical Office of the Slovak Republic collects and publishes information on security based on crimes, accidents, natural disasters and unemployment rate.

Section crime includes information on crimes quantity divided into basic groups and types, and information on crimes perpetrators, etc. Data on crimes are gained from Registration – statistical system of the Police Corps, Corps of Prison and Court Guard, and Financial Administration. Statistical data are published in Statistical yearbook of the Slovak Republic. These data are cumulative national data representing total number of cases per calendar year compared with other four calendar years. The newest published information is already one year old. The Statistical yearbook of the Slovak Republic 2015 was published in March 2016 and includes complex data for 2014 and earlier. An example of statistical data on crime field is presented in Table 1.

Table 1 Crimes

Indicator	2010	2011	2012	2013	2014
Recorded criminal offences	95 252	92 873	90 351	89 677	82 245
Of wich:					
Murder	89	96	75	78	72
Robbery	1 188	851	974	836	680
Battery	2 428	2 231	2 183	2 017	1 955
Rape	117	150	88	91	87
Burglary	14 783	12 884	11 855	11 167	9 427
Motor vehicle theft	3 354	2 694	2 546	2 431	2 297

Source: Statistical yearbook of the Slovak Republic 2015 p. 561

Sections accidents and natural disasters include data on road traffic accidents grouped according to main causes, locality, data on fires and floods. These data include number of accidents, fatalities, number of heavy and easy injured persons, material damages, saved values, number of evacuated person (animals) and saved persons

(animals). The sources for these data are found at the Ministry of Interior of the Slovak Republic, the Ministry of Environment, Presidium of Fire and Rescue Corps and its Fire-technical and expertise department (SUSR, 2015, pp. 561-574).

Social security is a special part of the county district's security. According to some authors

social security expresses the ability of the society to ensure for *an individual or for a social group enough basic sources for life and growth* (Mika & Lesczynski, 2010, p. 6). Employment can be considered as such basic source (Vighova & Stangova, 2013). Thus the social security can be expressed by unemployment rate or by number of unemployed persons according to various indicators which statistical data are parts of labour market (SUSR, 2015B).

Based on the structure of published statistical data of the Slovak Republic information on selected security components especially physical, social and environmental security if floods are included can be gained, too.

Presented examples of total statistical data can be used just to measure and to evaluate the security of county districts in the Slovak Republic

compared with national data. The Statistical yearbook of the Slovak regions can be used to compare the level of selected security components among county districts. It is published by the Statistical Office of the Slovak Republic few months later than national statistical yearbook.

According to this public accessible information relevant data on selected components of social, physical and environmental security can be gained, if fires are included. An example of regional statistics can be found in Table 2 regarding data on criminality, accidents and fires in Nitra region.

Analysing the table above it can be stated that there is less information provided as in national statistics. Other disadvantage of such published statistics is no possibility to compare the data among regions or with national statistical data.

Table 2 Criminality, accidents and fires – Nitra region

Criminality, Accidents and Fires	Year		
	2012	2013	2014
Criminality			
Recorded criminal offence in total	11 267	11 206	10 009
Of which			
General	6 971	6 667	5 780
Economic	2 034	2 384	2 271
Remaining	2 262	2 154	1 958
Crimes of violence in total	991	825	724
Of which			
Murders	8	11	12
Robberies	105	102	81
Battery	336	305	258
Road Traffic Accidents			
Traffic Accidents with Material Losses	1 404	1 354	1 294
Material losses (mill. €)	5,1	5,0	5,2
Killed persons	37	21	22
Severely injured persons	157	147	163
Slightly injured persons	603	580	598
Fires			
Fires	2 087	1 084	1 054
Direct material losses (mill. €)	3,9	3,3	4,3
Killed persons	9	6	8
Injured persons	25	27	28

Source: Statistical Office of the Slovak Republic – database of regional statistics RegDat- dated November 30, 2015

There is a quite different way how **the statistical data are collected by relevant ministries**. Here can be found national as well as regional data. Total number of events is presented as well as their causes in numbers or financial amount per calendar year.

An example of such statistics prepared by the Ministry of Interior of the Slovak Republic can be found in Table 3 – traffic accidents in 2015.

Considering the possible application of statistical data in crisis management appropriate content

and forms can be found in statistics regarding fire accidents in the Slovak Republic on regional basis registered by the Presidium of Fire and Rescue Corps of the Slovak Republic. Besides regional statistics also information regarding districts, locality, and place of fire, its causes and month when a fire occurred can be found there.

An example of such statistics can be found in Table 4 – fire accidents in 2015 comparing to 2014 and in individual regions.

Table 3 Traffic accidents in the Slovak Republic in 2015

	Slovakia								
	Total	Bratislava	Trnava	Trenčín	Nitra	Zilina	Banska Bystrica	Presov	Kosice
Total number of accidents	13547	2350	1247	1297	1612	1970	1414	1929	1728
Material damages up to 3990€, without fatalities or injuries	6685	1373	521	644	749	999	612	992	795
Accidents with fatalities or injuries	5172	658	540	517	615	745	625	690	782
Fatalities	274	25	26	28	32	54	34	44	31
Heavy injured person	1121	117	103	83	125	180	168	158	187
Damages in 10 €	4381346	714413	486345	390907	551758	629541	472727	616487	519168

Source: Ministry of Interior of the Slovak Republic

Table 4 Fire accidents in 2015 and in 2014 in individual regions

Region	Number of fires (in 2015)	Direct damages (€)	Fatalities	Injured person	Number of fires (in 2014)
Bratislava	1 242	5 515 045	3	29	1 078
Trnava	1 208	6 025 945	5	28	988
Trenčín	948	3 115 260	2	42	788
Nitra	1 070	2 432 345	12	33	934
Žilina	1 216	9 241 700	9	32	1 160
Banská Bystrica	1 245	2 460 665	9	24	1 054
Prešov	1 852	2 985 220	8	29	1 362
Košice	2 189	9 611 330	7	22	1 666
Total	10 970	41 387 510	55	239	9 030

Source: Presidium of Fire and Rescue Corps of the Slovak Republic

Extra detailed are the statistics on criminality prepared by the Presidium of the Police Corps of the Slovak Republic. They are divided into violent crimes (murders, robberies, other violent crimes), sexual crimes (rape, sexual abuse, human trafficking), property crimes (thefts), other crimes and economic crimes. Data are collected regional including districts and national, too. Figures represent number of cases not taking into consideration the surface of the region or its population or density.

Number of floods and their causes is registered in a table only by the Statistical Office of the Slovak Republic. Some relevant information on floods is also published by the Ministry of Environment in *Report on floods on the territory of the Slovak Republic and their causes*. The report is presented yearly to the Government of the Slovak Republic.

Serious industrial breakdowns belong to the category of environmental security of county districts besides floods and fires. The Ministry of Environment presents statistical data on types, causes and consequences of serious industrial breakdowns on their website. Totally six serious industrial breakdowns with one fatality and fourteen people with damaged health are registered since 2005 (Enviroportal, 2016).

According to survey results the citizens are sensitive to perception of county district security especially to *health part of the security*. Statistical data collected by Department of Health Promotion of the Public Health Authority of the Slovak Republic are necessary for objective evaluation of health security. All relevant information regarding health security of county districts are published in tables and graphs within *Annual report on authority activities for particular calendar year*. (UVZ SR, 2015)

At the end of presented analysis of present situation it can be stated that all relevant statistical data necessary to determinate particular components of the county districts security are public accessible in statistical yearbooks of the Statistical Office of the Slovak Republic or on websites of the Ministry of Interior of the Slovak Republic, the Ministry of Environment of the Slovak Republic, website of the Presidium of the Police Corps and the Presidium of the Fire and Rescue Corps of the Slovak Republic as well as

on the website of Public Health Authority of the Slovak Republic.

Public accessible are national wide and regional information on number and causes of events per calendar year. They do not take into consideration criteria important for objective comparison such as population of particular regions as well as their total area.

5 USING APPLICATION OF STATISTICAL DATA BY CRISIS MANAGEMENT OF PUBLIC ADMINISTRATION

Within the crisis management of the Slovak Republic the statistical data are collected and processed by Central Monitoring and Controlling Centre as a part of the Section of Crisis Management at the Ministry of Interior of the Slovak Republic.

The Centre collects annual statistical data in tables and graphs regarding *extraordinary incidents* (Act No. 42/1994, 1994) registered at the territory of the Slovak Republic and in particular regions. An example of such statistical data regarding extraordinary incidents is presented in Table 5.

Not every extraordinary incident requires a declaration of crisis situation in particular county district. Statistical data regarding declared crisis situation – extraordinary situations can be found in next table. (Act No. 42/1994, 1994, p. Art. 3).

An overview on declared crisis situations in the Slovak Republic in 2014 can be found in Table 6.

This part of statistical data is detailed elaborated regarding types of extraordinary situations as well as according to particular regions and nationwide.

Centre collects statistical data of crisis management divided in extraordinary incidents and extraordinary situations as well as divided in particular districts. Such detailed presented data show that in 2014 the most extraordinary situations were declared in Levice district (six), then in Galanta district (four) and then in districts of Senec, Piešťany, Žilina, Liptovský Mikuláš and Košice-countryside were declared three extraordinary situations. Almost all mentioned extraordinary situations were caused by floods. In fifty districts out of seventy-nine were declared no one extraordinary situation in 2014.

Based on data in Table 5 - 74, 2 per cent of all 372 extraordinary incidents were floods. The most extraordinary incidents occurred in Prešov region - 156. There were three periods during the

evaluated year 2014 when floods caused the most extraordinary incidents: 15th – 16th May, 17th July – 1st August and 12th – 14th September.

Table 5 Extraordinary incidents in 2014

Type of incident	Number		District							
	N	%	Bratislava	Banska Bystrica	Kosice	Nitra	Presov	Trencín	Trnava	Zilina
Unknown substance	21	5.6	9	3	2	1	2	1	2	1
Hoaxes	3	0.8	1	0	0	0	1	1	0	0
Floods	276	74.2	8	16	35	9	133	21	16	38
Excessive snow	0	0	0	0	0	0	0	0	0	0
Leakage of oil	10	2.7	3	0	1	0	5	0	1	0
Windstorm	3	0.8	0	0	0	0	0	0	3	0
Landslide	16	4.3	2	0	0	0	6	2	1	5
Other	43	11.6	13	4	1	1	9	3	6	6
Together	372	100	36	23	39	11	156	28	29	50

Source: Central Monitoring and Controlling Centre of the Ministry of Interior of the Slovak Republic

Table 6 Extraordinary situations in the Slovak Republic in 2014

Type of a crisis situation	Number		District							
	N	%	Bratislava	Banska Bystrica	Kosice	Nitra	Presov	Trencin	Trnava	Zilina
Unknown substance	1	2.2	0	0	0	0	0	0	1	0
Hoaxes	0	0	0	0	0	0	0	0	0	0
Floods	21	45.7	3	0	3	6	2	0	5	2
Excessive snow	0	0	0	0	0	0	0	0	0	0
Leakage Of oil	1	2.2	0	0	0	0	1	0	0	0
Windstorm	1	2.2	0	0	0	0	0	0	1	0
Landslide	15	32.6	2	0	0	0	5	2	1	5
Other	6	13.0	1	0	0	0	1	0	0	4
Together	46	100	6	0	0	6	9	2	8	12

Source: Central Monitoring and Controlling Centre of the Ministry of Interior of the Slovak Republic

Taking into account that Slovakia is a mountainous country it is interesting that there occurred no extraordinary incident on the Slovak territory caused by snow in 2014. For Banska Bystrica region was the year 2014 exceptional because there was not declared any extraordinary situation at all. Throughout 2014 there was not

declared any extraordinary incident in twelve districts.

All presented statistical data represents type and number of incidents in particular calendar year. However, they cannot be used for objective evaluation and comparison of security level

between county districts. More objective criteria should take into consideration the number of incidents per square km of the region area or per specified group of citizens e.g. per thousand citizens of district area.

6 EVALUATION OF CURRENT SITUATION AND SUGGESTIONS

According to presented analysis there do not exist a body or an institution in the Slovak Republic using accessible statistical data and other information to determine an index of security of county districts as above described on an example of Canada.

Although the security has become a top priority there does not exist legal norm in the Slovak Republic binding the public administration bodies with this task, too.

In this connection the majority of interests of the particular public administration bodies is dedicated to identification of security threats and their elimination by adoption of legislative, personal, organisational or technical measures. Adoption of National strategy of security risks management in the Slovak Republic by the government of the Slovak Republic (VSR, 2016) is a result of these ambitions. The aim of the strategy is to define measures to reduce security threats in favour of every single citizen of the Slovak Republic. It can be realized through:

- Integration of measures to eliminate risks in all developing activities of the Slovak Republic;
- Increase of awareness on risk management including readiness and immediate reaction if extraordinary incident occurs.

By adopting this Strategy the Slovak Republic belongs to the most active EU Member States in performing tasks of the EU Strategy on internal security (EU, *Strategia vnutornej bezpecnosti Eurupskej unie: Smerom k eurpskemu bezpecnostnemu modelu*, 5842/2/2010, 2010) and at the same time it fulfils a commitment on the field of civil protection designated by the EU (EU, 2013).

It is a pity that none of these documents requires determination of security level of particular county districts, their comparison and analysis.

Neither current analysis of the territory elaborated by state administration bodies on possible rise of

extraordinary incidents nor new strategies provides citizens with easy readable information on internet. Many of tables and graphs with expert comments in district's documents still are and stay strange for those whom are dedicated.

Security index of county districts should be a simple expression of objective and subjective perception of the county district security. Simple numeric formulation of security level in connection with graphic expression on a map would bring citizens a possibility to evaluate and to compare security level in his place of residence or employment or other places in his/her country where he/she is intended to spend holidays.

It would be beneficial if such index could be applied within the Schengen area where a free movement of citizens is guaranteed. Citizens could have a possibility to check in advance (as they do now with weather forecast) and to compare security level of regions/districts where they are intended to travel.

There should be specified a time period for index renewal in secure state of the country. It should be renewed few times per year if large crisis occur affecting more than one EU Member State to express the actual security situation.

There can be found an example of well performing index of citizens' security in Canada. It should become a goal of all analysis focused on evaluation of security risks in county districts.

7 CONCLUSION

The aim of the paper was to analyse and to evaluate present situation of using statistical data in crisis management of the Slovak Republic. The results of partial analysis have revealed weak sites of present situation especially the fact that public administration bodies of the Slovak Republic are not interested in using statistical data to determine objective security of county districts. Also a fact that provided statistical data cannot be used to compare security level of individual county districts can be seen as a weakness of the system. The current situation would be improved by a small change – to add a calculation per square kilometre or per thousand citizens.

Initiative of the Slovak Republic to gain wished level of citizens' and state security by National strategy on security risks management are good

pre-conditions for experts' negotiation with agree on implementation of security index of competent persons of particular ministries to county districts.

WORKS CITED

- Act No. 42/1994. (1994). *Section.2 Article 3 Act No. 42/1994 Col. On civil safety of citizens in its latest amendments*. Bratislava.
- Buzan, B., Ole, W., & Wilde, J. d. (1998). *Security - A new framework for analysis*. Boulder, Colorado: Lynne Rienner Publishers.
- Enviroportal. (2016, April 08). *Zavazne priemyselne havarie*. Retrieved from Enviroportal: <http://charon.sazp.sk/SevesoPublic/Havarie.aspx>
- EU. (2010). *Strategia vnutornej bezpecnosti Europskej unie: Smerom k europskemu bezpecnostnemu modelu, 5842/2/2010*. Luxemburg: Urad pre publikacie. doi:10.2860/91616
- EU. (2013, Dec 20). *Decision No 1313/2013/EU of the European Parliament and of the Council of 17 December 2013 on a Union Civil Protection Mechanism*. Retrieved from Official Journal of the European Union: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013D1313&from=SK>
- Horak, R., Danielova, L., Juricek, L., & Simak, L. (2015). *Zasady ochrany spolecnosti*. Ostrava: KEY Publishing.
- Kovac, M. (2015). *Analysis of current approaches and methods of citizens' security measurement*. Bratislava.
- Kovac, M., & Hudakova, M. (2014). *Moznosti merania bezpecnosti obcanov v podmienkach uzemnych celkov Slovenskej republiky*. Zilina.
- Kovac, M., Gasparovic, I., & Meciar, V. (1994, Jan 27). *§12,13 a 14 zakon NR SR 42/1994 Z. z. o civilnej ochrane obyvateľstva v znení neskorsich predpisov*. Retrieved from Zbierka zakonov: <http://www.dubravy.sk/data/file/94-z042.pdf>
- Mika, V., & Lesczynski, M. (2010). *Sucasne zmeny v prostredi a nove ponatie bezpecnosti z pohľadu teorie krizoveho manazmentu*. *Security Revue*, 6.
- Ondrejcsak, R. (2004). *Nove trendy v bezpecnostnych politikach Spojenych statov americkych, Francuzska, Spojeného kralovstva a Nemecka*. Bratislava: MOSR.
- Simak, L., & et al. (2004). *Terminologicky slovník krizoveho riadenia, p. 44*. Zilina.
- SUSR. (2015). *Statisticka rocenka SR 2015*. Bratislava.
- SUSR. (2015B). *Statisticka rocenka SR 2015 - Uchádzači o zamestnanie evidovaní na úradoch práce sociálnych vecí a rodiny. T 4-14*. Bratislava: SUSR.
- Tyrala, P. (2002). *Zarządzanie Kryzysowe, Ryzyko-bezpieczenstwo-obronnosc*. Torun: Adam Marszalek.
- UVZ SR. (2015, March). *Vyrocna sprava o cinnosti Uradu verejného zdravotníctva za rok 2015*. Retrieved from Urad verejného zdravotníctva Slovenskej republiky: http://www.uvzsr.sk/docs/vs/vyrocna_sprava_2015.pdf
- Vighova, A., & Stangova, N. (2013). *Information System –Basis for Successful Management of the Organization*. *International Journal of Advances in Management and Economics*. - ISSN 2278-3369, 8-12.
- VSR. (2016, Jan 13). *Uznesenie vlady SR č.3 z 13.01.2016 k Narodnej strategii manazmentu bezpecnostnych rizik SR*. Retrieved from Rokovania:

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CUSTOMER RESEARCH OF NON-BANK ENTITIES

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Abstract

The issue of nonbank entities in the Slovak Republic and segmentation of their customers is extremely topical and important. Its topicality and importance is emphasized by increasing number of nonbank entities on financial market established by either legal or physical persons. Almost thirty thousand distraint cases annually when incomes and property of nonbank customers are seized for failure to repay raises attention on this topic, too. The legal environment in the Slovak Republic enables to establish nonbank entities. They are performed under Commercial Code and other laws regulating nonbank activities when acting as creditors providing consumer credits and loans to its customers. Therefore, the nonbank entities with their products and services are generating competitive landscape for bank sector. Customers are basic precondition for financial institution performance. All methods and forms of goal-directed marketing are used to address customer. To gain success the nonbank entities are forced to search for those groups of customers which will be interested in their products and services. They use a number of modern methods and research techniques for this purpose. The author points in the paper at the importance of segmentation of non-bank entities customers in the Slovak Republic. Theoretical starting points are followed by brief description of the evolution of non-bank entities in the Slovak Republic as well as by description of their legal framework. There are selected results of author's research on segmentation of non-bank entities customers in the Slovak Republic presented in the paper's core. Based on these results the author evaluates present situation of segmentation taking into consideration segmentation criteria, she identifies problem areas and suggests solutions for improvements.

Keywords: non-bank entity, customer, segmentation, marketing research

1 INTRODUCTION

The issue of non-bank entities in the Slovak Republic and segmentation of their customers is extremely topical and important.

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Its topicality and importance is emphasized by increasing number of non-bank entities on financial market established by either legal or physical persons. Almost thirty thousand distraint cases annually when incomes and property of non-bank customers are seized for failure to repay, raises attention on this topic, too.

The legal environment in the Slovak Republic enables to establish non-bank entities. They are

performed under Commercial Code and other laws regulating non-bank activities when acting as creditors providing consumer credits and loans to its customers. Therefore the non-bank entities with their products and services are generating competitive landscape for bank sector.

Customers are basic precondition for financial institution performance. All methods and forms of goal directed marketing are used to address customer. To gain success the non-bank entities are forced to search for those groups of customers which will be interested in their products and services. They use a number of modern methods and research techniques for this purpose.

The paper is focused on this topic, especially on research of non-bank customers reflecting segmentation criteria.

2 METHODOLOGY

The aim of this paper is to identify and to evaluate present status of segmentation reflecting segmentation criteria and suggest solutions for improvements. A survey on segmentation of non-bank entities customers in the Slovak Republic was used for this purpose.

The first part of this paper is a compilation of theoretical starting points and description of non-bank entities and their progress in the Slovak Republic since 2009. After that a legal framework of non-bank entities is presented. To elaborate this part of the paper the author has sourced in insufficient national as well as in international bibliography, magazines and scientific and expert papers and applicable legal norms of the Slovak Republic and the European Central Bank, too.

The core of the paper is based on presentation of selected findings of author's research on segmentation of non-bank entities customers in the Slovak Republic using electronic questionnaires. Goal and hypothesis of the survey are based on theoretical information achieved during studies at the School of Economics and Management of Public Administration in Bratislava as well as own work experiences in some bank entities. Diagrams and descriptions of findings and current situation are used to present survey results.

Partial results describe positives and negatives of current situation. Therefore there is a part of this

paper bringing also starting points for solutions to improve the situation in favour of non-bank entities and their customers. The third chapter is based on information gained from 362 survey respondents.

We have used standardised scientific methods as e.g. method of scientific abstraction and description especially when describing matters and features of the financial market in the Slovak Republic. Methods of scientific analysis, synthesis and comparison were used, too. Survey method and mathematic-statistical method, diagram method and method of scientific induction and deduction were applied to formulate findings and solutions in final part of the paper.

3 THEORETICAL STARTING POINTS OF ANALYSED TOPIC

Only definitions of terms related to analysed topic were chosen to describe theoretical starting points of segmentation of non-bank entities customers.

Market presents selling and buying processes between individual economic subjects on financial – economic basis. It is split up in market of goods and services, market of production capital, financial market, information market and ideology market. (Hrvoľova, Nincakova, & Vavrova, 2006, p. 17)

Financial market is a place where a variety of free financial means in form of savings of diverse economic subjects meets a demand of other economic subjects on these means using those as investments. The task of the financial market is to move financial means from subjects with their surplus towards subjects with their deficit. (Hrvoľova, Nincakova, & Vavrova, 2006, p. 17)

Bank marketing as a special task starts with marketing research specifying clients' needs and wishes. Findings of marketing research as well as results of evaluation of banks' macro and microclimate are basis to evaluate bank's position on banks' market, to audit goals and to define detailed operative aims. (Medved, et al., 2012, p. 489)

Financial marketing incorporates specific features which are distinguishing it from marketing in general, it can be understood as a marketing of services.

Customer's position within marketing concept is dominant. He /She decides if offered products will

be accepted or not, i.e. or if product's have such impact on him/her that he/she is willing to provide required value, or if exchange or transaction will be carried out for provided advantage. (Medved, et al., 2012, p. 14)

The aim of marketing is to know customer and to understand him/her in the way the offered products will pass him/her and he/she will accept them and will require them to fulfil his/her demands. (Medved, et al., 2012, p. 14)

Segmentation of markets is described as an offensive strategy, coming out of market production and definition of new products in relation to demand's specification (Kita & et al., 2010, p. 26).

How is current Slovak customer? Firstly, he/she is for a long time extremely prices sensitive, still rather conservative, relied on good experiences from the past, careful and in opposite to young generation he/she do not trust immediately newflashes. (Kostal, 2005, p. 10)

Segmentation of the market is based on adequate proportioning of market into homogenate parts, so called market segments, which become target market of a company with specific. *Segment* can be defined as a part of a market, which is created by consumers with similar features, behaviour and purchasing decision on this market. (Medved, et al., 2012, p. 546) According to Cibakova (Cibakova, Rosza, & Cibak, 2007, p. 56) market segment is built out of consumers with similar reactions on selected group of marketing's impulse.

Segmentation is a tool for separation of needs of customers using specific service or product. It divides market into smaller homogeny parts and enables quick response on changes in market demands. We deal with the segmentation intuitive (we can use own experiences) and systematic (focusing on competition). (Medved, et al., 2012, p. 547)

CRM is an information system gathering existing business applications back – office and new applications front – office. Customers' database is a product which value grows permanently with

intensive usage. (Jelinek, 2006, p. 3) The aim of *CRM* is to build relations with customers beneficial for both parties – for an institution as well as for a customer (customers' loyalty, increase of customers' satisfaction, coordination of communication among particular units ...). (Koraus, 2011, p. 162)

Generally speaking, *non-bank entities* are legal or physical persons with no bank licence. According to Commercial Code their line of business is acceptance of deposits, providing of loans and consumers' credits, financial advisory, leasing and other financial services and operations etc.

The National Bank of Slovakia in concordance with particular legal norms of the EU¹ classifies the non-bank entities into category *Other financial agents except insurance corporations and pension funds with labelling S. 125*.

All financial corporation and quasi corporation acting as financial agents on a basis of obligation acceptance in other forms than currency from other institutional units, financial institutions or insurance-technic reserves belong to this same group.

Non-bank entities acting on Slovak financial market could be defined as *Financial corporations providing credits* (Vighova & Stangova, 2013, pp. 8-12), as e.g. financial agents providing leasing, instalment purchase and customers or business credits or factoring (a method of financing short-term credits provided by products and services supplying). (NBS, 2015, pp. 29,35)

According to the methodology of the ECB into subsector S.125 belong e.g.:

- Exportno-importná banka SR (Export-import bank of the Slovak Republic),
- Tatra-leasing, s.r.o. (Tatra-leasing Ltd.)
- OTP Faktoring Slovensko, a.s., (OTP Factoring Slovakia Ltd.)
- Volkswagen Finančné služby Slovensko, s.r.o., (Volkswagen Financial Services Slovakia Ltd.)
- HomeCredit Leasing, a.s. (HomeCredit Leasing Inc.)

¹ Directive 2013/549/EC of the European Parliament and of the Council (EC 549/2013,

2013) and Directive 2013/1071 of the European Central Bank (ECB/2013/33, 2014)

- The European Stability Mechanism (ESM) so called „permanent European rescue fund“.

We can divide the non-bank entities in the Slovak Republic according to the type of contract or according to the legal form of business.

According to the type of contract the non-bank entities can be divided into groups of entities using:

- contracts on silent partnership,
- agreements on forward action selling,
- loan agreements,
- note purchase,
- trust agreement on financial means.

According to the legal form of business the non-bank entities can be divided into groups taking into consideration the Commercial Code:

- physical person,
- limited liability company,
- company limited by shares,
- public trade company,
- limited partnership.

4 EVOLUTION OF NON-BANK ENTITIES ON FINANCIAL MARKET OF THE SLOVAK REPUBLIC

Non-bank entities exist on financial market in the Slovak Republic since 2009.

At the beginning they were in an operation and they accepted more contribution than they had to

pay out (Openiazoch, 2016). It was called pyramids (or Ponzi) schema. Such type of structure has to be supported by more and more new investors.

Non-bank entities explained through expensive and convincing advertising the extraordinary interests by various money-making activities such as keeping hockshops, betting agencies, leasing business, commodity exchange dealing etc. None of mentioned activities could bring confirmed acquisition few times higher than ordinary interests' rate (Kabat & Filip, 2015, pp. 170-176). And in case they did, these companies could gain necessary capital cheaper than thirty per cent which they offered to their clients.

Non-bank entities were not obliged to inform about basic information regarding financial situation or business plans.

Three well-known non-bank entities Horizont Slovakia o.c.p., Ltd., AGW, Ltd. a BMG Invest, Ltd. are an example of misusing the legal environment in the Slovak Republic

These companies promised in their expensive advertising activities unrealistic interests. A comparison of interests' rate promised in 1997 - 2001 with actual interests' rate of banks in the Slovak Republic. A huge difference can be observed there.

Table 1 Comparison of interests' rate promised by non-bank entities in the Slovak Republic in 1997 - 2001 and actual interests' rate of banks in Slovakia, dated 29 March 2016

Maturity (in months)	Promised interests of contributions in percentage		Actual interests rate of selected banks in the Slovak Republic to date June 30, 2015					
	BMG Horizont	AGW	BKS Bank AG	ČSOB	J&T Banka	Privat banka	Slovenska sporitel'na	Tatrabanka
3	22.00	22.00	0.60	0.20	-	0.80	0.05	0.05
6	25.50	27.50	0.70	0.40	-	1.00	0.10	0.05
9	31.00	29.50	-	-	-	-	-	-
12	35.00	34.50	1.15	1.40	1.60	1.50	0.30-2.50	0.15
24	37.00	35.50	1.15	1.5	1.60	1.70	0.40-0.90	0.20
36	39.50	-	1.15	1.6	2.00	1.75	0.50-1.00	0.25

Source: own comparison according to <http://banky.sk/terminovane-vklady/>, on-line 29 March,2016

These companies spent enormous financial means for deceptive advertising comparing to

banks. For example, Horizont Slovakia, Ltd. spent since 1997 till 2001 1.34 billion Slovak crowns.

BMG Invest spent 812 million Slovak crowns and AGW 321.13 million Slovak crowns for advertising. (banky.sk, 2016)

Although the National Bank of Slovakia published in September 1998 a notice to inform public about breaking law on banks /dated 1992/ by mentioned non-bank entities, the citizens intended to earn the most had taken the risk. Losses were enormous. For example, the customers of Horizont Slovakia and BMG Invest gained in 1997 - 2001 more than two billion Slovak crowns from citizens and agreed on 856,000 contracts. Despite the fact they have paid more than 1.75 billion Slovak crowns for contribution, there are more than 170,000 persons with no recovery of claims.

Based on these examples the government and members of parliament have adopted legal norms with the aim to stop the non-bank entities' dishonest acting and to protect customers – citizens of the Slovak Republic.

Slovak courts have condemned proprietors of non-bank entities but fooled clients were paid minimum sums as a part of companies' liquidation.

5 LEGAL FRAMEWORK FOR NON-BANK ENTITIES

Since 2010 and in accordance with legal norms of the EÚ, the Slovak Republic and the ECB the loans activity of non-bank entities is regulated by National Bank of Slovakia.

The first act determining rules for credit activities of bank and non-bank entities in the Slovak Republic was act of the National Council of the Slovak Republic No. 129/2010 Coll. on consumers' credits and other credits and loans for consumers and on changes and amendments of some other acts of 9 March 2010.

This act is a total transposition of Directive 2008/48/EC of the European Parliament and of the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC (hereinafter referred as "directive") into the Slovak legal system.

It arranges rights and obligations related to provision of consumer's credit based on consumers' credit agreement, conditions to provide consumer's credit, terms of consumer's credit agreement, way of counting total costs of a consumer related to the provision of consumer's

credit, conditions to be fulfilled if requiring admittance to provide consumers' credits, conditions to execute creditor's activities and other measures of consumer's protection.

Non-bank entities are considered as a *creditor*, (§2, letter b. Act No.129/2010 Coll. of 9 March 2010) acting as a physical or a legal person who offers or provides consumer's credit as a part of its business activities. The act describes detailed steps and information needed before the consumer's credit agreement is signed especially on advertising, on provided information, on the obligation to check the consumer's ability to pay the credit. It specifies conditions to access databases, mandate the National Bank of Slovakia to establish on its website a list of creditors (a register), it determines terms of consumer's credit agreement. Then it describes a calculation of the annual percentage rate of charge and conditions to gain permission of the National Bank of Slovakia to provide consumer credits.

Latest amendments of the act of the National Council of the Slovak Republic No. 129/2010 Coll. is the act of the National Council of the Slovak Republic No. 35/2015 Coll. This act adds some important clauses regarding non-bank entities. The Ministry of Finance of the Slovak Republic expects that the new act will force dishonest business entities to leave the financial market.

The act describes detailed the steps leading to transparency and increase of audit on the market of consumers' credits providers. Two meritorious changes have been implemented:

- implementation of licence procedure for creditors,
- implementation of obligation to check information in consumers' credits register due to evaluate the ability of a consumer to pay for consumer's credit and other costs related to the consumer's credit.

According to this amending act the non-bank entities are supervised by the National Bank of Slovakia and can *act just with a licence* (NBS, §20 Act of the National Council of the Slovak Republic No. 35/2015 Coll). Conditions to be fulfilled when requiring a licence:

- legal form of a company limited by shares or a company with limited liability,
- establishment of supervisory board,

- basic equity of at least 500 000 Euro paid as a contribution,
- transparent and trustful origin of paid contribution in basic capital,
- professional competence, integrity and trustfulness of physical person nominated at the position of statutory authority member, or manager, member of supervisory board, or chief of the intern audit unit of an applicant,
- appropriateness of legal person,
- presentation of a system to check availability of clients to pay for credits and a system to provide clients with credits including methods to solve problems and claims,
- transparency of a group and its close connections,
- legal norms and their enforcement, close connections do not obstruct the execution of supervisory,
- location of a seat or its organisational unit at the territory of the Slovak Republic,
- formulated claiming order.

Present credits providers could act according to current evidence in the creditors' database until 31 August 2015 (NBS, §20 Act of the National Council of the Slovak Republic No. 35/2015 Coll, 2015). Then the databases have expired. They can send an application to the National Bank of Slovakia to ask for a permission to provide consumers' credits with or without limitation or to provide other credits or loans. The National Bank of Slovakia offers example of application's letters on its website:

- application letter on permission to provide consumers' credits without limitations, or with limitation (legal person) and with limitation (physical person),
- application letter on permission to provide credits and loans to consumer.

Then there are other forms (annexes of the application letter) that can be downloaded from the website: declaration on oath of the person nominated as a member of statutory board, applicant – physical person – declaration on trustfulness and legal person - on competency.

The National Bank of Slovakia has a new database of creditors with valid permission to provide or to offer consumers' credits since 31 August 2015. Only twenty-three non-bank entities were registered in the database by 28 March 2016 (NBS, Nebankovi veritelia a ostatne subjekty ,

2016). Comparing to 31 August 2015 (250 registered entities) it is a decrease by 277 subjects.

In this connection some information on the establishment of black or shadow financial market in the Slovak Republic occurs. It is a concurrency to legal subjects. Clients of such subjects have to face enormous risk of property deprivation in case of insolvency, if not able to pay for a credit with inadequate interests.

6 RESEARCH ON SEGMENTATION OF NON-BANK ENTITIES CUSTOMERS

A questionnaire via internet has been used to gain information on current status regarding the segmentation of non-bank entities customers in the Slovak Republic. Its goal was to identify the opinions of non-bank entities customers on quality of services provided by the non-bank entities.

Main hypothesis of the research was based on the idea that the segmentation of non-bank entities customers is influenced by the relationship towards the product and the quality evaluation of provided products and services.

Electronic questionnaire has been worked out with the software accessible on iAnkety.sk website. It has contained six questions to identify a respondent and other twenty-five closed questions to gain main information on segmentation criteria:

- geographic criteria – the Slovak Republic, region, city/municipality,
- demographic criteria – gender, age, education, occupation, social status, income,
- psychologic criteria – social class, life style, personality, quality evaluation,
- clients' behaviour, their relationship towards products – expected apport, chance, attitude towards product, devotion to the non-bank entity, variety of information, frequency of products' usage.

Data collection via electronic questionnaire was realised on public accessible internet (VSEMVS, 2015) during four months. Totally more than 400 questionnaires were answered in this time period. Then they have been checked and 362 completed questionnaires were chosen for statistics. The respondents are from all regions of the Slovak Republic.

Due to limited extent of this paper the author has chosen only some interesting results for presentation.

Based on the research results, it can be stated that, following a demographics criterion, a segment of non-bank entities customers consists mainly of clients aged 26-45 (45 per cent), families with no or one child (50 per cent), with total income of the family 301-600 €/month (39 per cent).

In context of psychologic criteria, the majority of clients belongs to lower or lower middle class, no one to upper class (75%).

According to the results of customers, segmentation's research regarding the relationship of a non-bank entity towards its clients comes out that the majority of clients are satisfied (53%), positively evaluating promptness (23%), administrative modesty (15%) and processes without checking income and property guarantee (14%). The most of clients evaluates positively the information on credits terms and are loyal towards their non-bank entity. Almost 70% of respondents would welcome customers' centres of non-bank entities to help with problems or to pay cash for credit's instalment.

Not many clients were not able to repay the credits and their incomes and property were distraint. These are clients with no insurance against insolvency.

Very important is the finding that the customers were satisfied with the credits because they reached their purpose.

There were twelve questions chosen to check the main hypothesis. Based on the results it can be stated that the main research hypothesis is confirmed. The clients have clearly declared in their answers and evaluations that deciding influence on customers' segmentation is based on the relation of the customer towards product and non-bank entity towards customer.

7 SUGGESTIONS

The author has worked out some suggestions of improvement measures because the research findings have revealed weak sites of current status. The suggestions of measures are concentrated as on the non-bank entity as well as on customer.

Regarding the non-bank entities, the suggested measures are related to products or service features, to contact of non-bank entity with customers, to professional and psychologic education of non-bank entity employees, image and distribution improvement.

Suggested measures regarding the customer are: to choose licenced non-bank entity, with real seat and customer services, to focus on an annual percentage of costs. Those with 30 per cent rate and more are highly risk (Kovac & Hudakova, 2015). The customer should be informed about sanctions and penalties for late payment. If necessary to search for solutions of problems with an agreement or with a court.

A general suggestion can be presented, too. The establishment and the activities of non-bank entities should be regulated by law as it is in case of banks in the Slovak Republic.

8 CONCLUSIONS

At the end it can be stated that the segmentation of customers of non-bank entities on financial market in the Slovak Republic is an actual and important issue as well as for professionals as for general public including their customers.

The paper has presented the most important theoretical information of mentioned topic, has described the evolution of non-bank entities and has characterized legal framework of operation and functioning of non-bank entities. Based on this it has prepared a suitable framework to research of segmentation by customers.

The most beneficial part of the paper is the presentation of research findings collected via internet from real customers of non-bank entities from all regions in Slovakia. The results have proved the hypothesis of the research: the segmentation of customers is influenced mainly by a product and by a relationship of non-bank entity towards its customer.

Positive on current situation regarding the non-bank entities in the Slovak Republic is the fact that by adoption of law the condition to grant permission to advance loans and credits are made more restrictive. The customer has the possibility to check the credibility and reliability of entities via website of the National Bank of Slovakia. It is up to him/her if he/she make use of this service or will choose risk subjects on a black market.

WORKS CITED

- §2, letter b. Act No.129/2010 Coll. of 9 March 2010. (2010, Mar 09). Retrieved from NBS: http://www.nbs.sk/_img/Documents/_Legislativa/_BasicActs/A129-2010.pdf
- banky.sk. (2016, Mar 25). <http://banky.sk/zoznam-bank-na-slovensku/>. Retrieved from banky.sk: www.banky.sk
- Cibakova, V., Rosza, Z., & Cibak, L. (2007). *Marketing služieb*. Bratislava: Iura Editions spol. s.r.o.
- EC 549/2013. (2013). Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013. *Official Journal of the European Union*, 174/1-727.
- ECB/2013/33. (2014, Dec 16). Regulation (EU) No 1071/2013 of the European Central Bank of 24 September 2013. *Official Journal of the European Union*, 297/1-50. Retrieved from <http://eur-lex.europa.eu/legal-content/en/TXT/PDF/?uri=CELEX:32013R1071&from=EN>
- Hrvoľova, B., Nincakova, L., & Vavrova, K. (2006). *Analyza finančných trhov*. Sprint.
- Jelinek, J. (2006). Jak inteligentne vyuzit CRM system. *Trend marketing*, 3(12).
- Kabat, L., & Filip, S. (2015, Jan 15). Alternative possibilities of detection of manipulation with the accounting data. (Z. Čekerevac, Ed.) *MEST Journal*, 3(1), 170-176. doi:10.12709/mest.03.03.01.18
- Kita, J., & et al. (2010). *Marketing*. Bratislava: Iura Edition.
- Koraus, A. (2011). *Finančný marketing*. Bratislava: Sprint.
- Kostal, D. (2005). Zakaznika ziskate komunikaciou. *Obchod*, 10(3), 10.
- Kovac, M., & Hudakova, M. (2015). *Možnosti merania bezpečnosti občanov v podmienkach územných celkov SR*. Praha: WoltersKluwer.
- Medved, J., Sobek, O., Sipko, J., Dufala, V., Demjan, V., Kosik, O., . . . Vargova, V. (2012). *Banky - teória a prax*. Sprint dva.
- NBS. (2015, Apr 01). §20 Act of the National Council of the Slovak Republic No. 35/2015 Coll. Retrieved from NBS.
- NBS. (2015). *Metodická príručka pre zatriedovanie položiek aktív a pasív podľa sektora zmluvnej protistrany. Menova a finančná statistika 2015*. Bratislava: Narodna banka Slovenska.
- NBS. (2016). *Nebankovi veritelia a ostatné subjekty*. Retrieved from Narodna Banka Slovenska: <http://www.nbs.sk/sk/dohlad-nad-financnym-trhom-prakticke-informacie/zoznamy-subjektov-registre-a-formulare/zoznamy-subjektov/veritelia>
- Openiazoch. (2016, May 05). *Nebankové inštitúcie ako nástroj na ukladanie peňazí*. Retrieved from Finančné centrum O peniazoch: <http://openiazoch.zoznam.sk/nebankove-spolocnosti/vklady>
- Vighova, A., & Stangova, N. (2013). Information System – Basis for Successful Management of the Organization. *International Journal of Advances in Management and Economics*, 8-12.
- VSEMVS. (2015). *Dotazník "Segmentácia zákazníkov nebankových subjektov"*. Retrieved from iankety.sk: <http://www.iankety.sk/dotaznik/355446624/>

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UNIVERSITY MANAGEMENT STIMULATING HIGHER EDUCATION QUALITY

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Abstract

The quality of higher education has two aspects: 1. Quality of preparation of students as a result of received and acquired knowledge, skills, competencies and values; and 2. Quality of education objects – academic disciplines, teachers, majors. The article examines both aspects and focuses on two ideas: (1) The university Quality Management must coordinate the content and structure of the European and national qualification frameworks with the national accreditation systems and rating systems. Today this is not a fact. That way, students and doctoral students, teachers and academic leaders would generate aspirations and interests would form that are harmonious and synergistic to national and European requirements, mission, values and policies of the university. This would create prerequisites for better ranking in the national rating of universities which would come with the expected bonuses from the state budget for the University. (2) To generate motivation for high quality students, teachers and academic leaders by linking them with achievements of recognition and remuneration. This is possible only if there is an objective and recognized system of evaluation. It is proposed that the evaluation be multifactorial multi-subject, expert, quantitative (on a scale comparable to the national grading system) and is based on academic standards for the subject being assessed. The standards need to be harmonized with the National Qualifications Framework. To accomplish an objective student assessment, the article proposes the introduction of external evaluation and anonymous assessments from the written exam.

Keywords: Quality management, system, evaluation, maintenance, university, European Qualifications Framework, National Qualifications Framework, standard, assessment of university objects, quality improvement, stimulation of teachers and students

1. INSTITUTIONALIZATION OF THE QUALITY OF EDUCATION IN EUROPE AND BULGARIA

The European Higher Education Area (EHEA) is built on the principles and values set as early as in the Bologna Declaration in 1999 being enriched and approved in the years following it. One of these principles is the quality of higher education.

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Explicitly or implicitly, it was included in the agendas of periodic meetings of Ministers of Education of the countries-participants in the Bologna Process in Prague, Bergen, London, Leuven, Vienna, Budapest and Bucharest. As a result, the following decisions were made:

- *European Qualifications Framework (EQF)* (EC, 2008) in the EHEA, which serves as a basis to build national qualifications frameworks;
- General principles, criteria and methodology for quality assurance;
- Standards and guidelines for Quality Assurance in the European Educational Area

Three levels of implementation were introduced: institutional (internal-university), external (of the agencies for assessment and accreditation) and European, which is represented by the *European Association for Quality Assurance in Higher Education (ENQA)*.

The European Parliament adopted ***an Agenda for the Modernisation of Europe's Higher Education Systems*** where it is underlined that "the quality and relevance of higher education are key conditions for extracting maximum benefit from the intellectual capital of Europe." (SEC(2011) 1063 final). It encouraged the institutions of higher education to develop and implement their own internal systems of quality management and accreditation agencies to apply the European standards and guidelines for quality assurance.

In compliance with the *European Qualifications Framework*, in 2012 the Council of Ministers approved the *National Qualifications Framework of the Republic of Bulgaria* (NQF) (2012), the last three levels of which define knowledge, skills and competencies general for all Bachelors, Masters and Doctors in Bulgaria. The National Evaluation and Accreditation Agency (NEAA) of the Republic of Bulgaria became a member of ENQA and is guided by its principles and standards. The Parliament adopted *The strategy for the development of higher education in Bulgaria 2020* and *Action Plan* for its implementation.

Today Higher Education has a new philosophy. The future new model puts the personality of student, PhD student, postgraduate student in the centre of educational paradigms. It is a model where one has the right to choose what to study,

where to study, whether and when to graduate but also he/she should take the responsibility of choice and decision. The man in a democratic and open society must prepare for successful professional and civic career on the dynamic national, European and world market. This model requires innovative educational policy oriented to diverse personal needs and multiple choices.

Nowadays the emphasis is placed on the model oriented to results where the revenues at universities correspond to the quality of educational services.

Since 2012 part of the state subsidy for higher education (currently only 4% is paid as a stimulus for universities with professional fields, which are top-rated in the *Bulgarian University Ranking System (BURS)* (IREG, 2013) of Ministry of Education and Science. This ranking system was created using European funds and includes criteria in several sections such as: accreditation evaluation, learning process, research, academic staff, learning environment, social life and administrative services, career of graduates and compliance with the labour market. Thus the government does not only declare its quality policy, but also begins to implement it through appropriate financial mechanisms.

To a large extent BURS repeats the criteria of NEAA. There is no consistency between the weights of evaluation criteria in both systems but it must be recognized that BURS is a step in the right direction. After the forthcoming imperative improvement of both systems and their harmonization they can become an effective tool for quality management in higher education on national level. Now changes in the Higher Education Act are also provided to increase the share of budgetary funding for quality assessed according to BURS.

One of the first steps in the adopted *Action Plan* was to make amendments to the Higher Education Act in February 2016. Performing its functions in education policies in compliance with the dynamics of social development, the government introduced priority professional fields and protected programmes, which there is social need of (not always those seeking higher education are not always aware of that): engineers, teachers, mathematicians, physicists, IT experts, agronomists, etc., and which are stimulatingly

funded by a special order. The share of state subsidies for quality and performance is increased. For several years this share will cover the bulk of the state budget for maintenance of training: in 2016/ 2017 academic year it increases to 30% and in 2019/2020 it will be 60%.

Left without the needed state subsidies, universities will be forced to get rid of inefficient and uncompetitive academic structures and programmes, and vice versa, will develop others, which the country needs. Thus, adequate national quality policy could be implemented by statutory financial mechanisms, without power solutions and administrative measures. It remains to find out also efficient incentive mechanisms for prospective students to enrol in these programmes, which now seem to them difficult and unprofitable.

2. UNIVERSITY QUALITY MANAGEMENT

2.1 Proposals

The key ideas, which this paper advocates for, are related to university quality management. Two important steps are offered as efficient tools:

- To generate motivation for high quality effectively connecting the achievements of the academic staff and students with their recognition and remuneration.
- To coordinate the University Quality Management by contents and formally with the National Qualifications Framework, the national accreditation and ranking systems and BURS, which is not a fact now.

2.2 Systems of evaluation and maintenance of quality in an university

Within the context of the quality of education, the problem of university management acquires particular significance.

The mandatory *System of Evaluation and Quality Assurance of Education* was introduced by the Higher Education Act 10 years ago. As a consequence, all universities introduced their own systems of quality management, some of which being in compliance with the international ISO standards.

However, the analysis of the situation shows that a number of shortcomings in university quality management and the systems as part of it have not been overcome.

The process of evaluation and its results still remain rather formal and inefficient:

- Realistic self-evaluation has not become a common practice.
- There is a lack of interest of evaluators in the evaluation process.
- Small part of students participates fully in surveys on quality achieved.
- The evaluation is done within the university but the end user is outside of it.
- The importance of subjective factor is too high, which puts the adequacy of assessments into question.
- The publicity of evaluation is limited and does not create competition to achieve quality

The feedback between quality and its carrier – the teacher, student, academic leader – is open and practically "broken".

The *Strategy of Higher Education* states that low efficiency of the systems is largely due to the "lack of incentives for the best teachers." This "hinders promotion and fixes the traditions of equalization". Currently all teachers having one and the same academic rank receive one and the same salary, regardless of the work done, the complexity and quality of the creative product they produce. One of the main reasons for that is the lack of adequate and objective quality assessment.

To connect quality achievements with remuneration and recognition of teachers and academic authorities, it is necessary to objectively and adequately assess the results of their work and creativity.

Quality needs to form adequate incentives for students as well. Presumably students, especially those in master's degree courses, are "internally" motivated for knowledge and skills. But observations on university realities show that it applies to not more than 15-20% of the student community. Furthermore, under the current system of testing and evaluation it cannot be stated that the best students and those with the highest quality of training have achieved the highest results. At that, it is the numerical expression of success that scholarship incentives

and some very tentative steps of universities towards "external" motivation depend on.

2.3 Standards

This paper starts from the definition that:

Quality is a complex multidimensional set of properties and characteristics of higher education (training of students) and its subjects (university, programme, syllabus, teacher) that give it ability to meet determined or suspected dynamically changing requirements to it (Hristova, 2007). Quality is as better as the difference between the dynamically changing requirements to the educational subject and the results is less as sooner this difference is overcome.

From this definition it appears that quality cannot be measured and assessed if there are no requirements defined to the relevant object and if there are no adequate measures.

The requirements for different educational degrees are included in the contents of the European Qualifications Framework (EQF) and National Qualifications Framework (NQF). They are standards of knowledge, skills and competences on EU and national levels but there are no requirements for the "output" of university and its programmes. They should be developed in compliance with the National Qualifications Framework.

The standard is a definition of the results to be achieved and the rules to be followed, which is formalized and approved by an authorized body (SEC(2011) 1063 final). According to the ENQA document "*Standards and recommendations on quality assurance ...*" it is not supposed to keep "strict implementation of the standard". Also, "it should not be interpreted as a prescription that can not be changed." (ENQA, 2015).

2.4 Assessment and evaluators of university objects

In world university practice there are different approaches and methods to assess the quality of training. Some of these rely on measuring outcomes; others rely on the difference between inlet and outlet of the "black box", which for these methods is the higher school.

It seems that "step by step" is the most appropriate approach. This approach is used to evaluate various aspects of training and research: teaching

contents, organization and performance of learning process, teaching skill, school facilities, standards and requirements for evaluation of students, exam procedures, outcomes, themes and volume of research, involvement of teachers and students in research, quality of scientific results, etc. The aggregate value and significance of all these aspects determine quality. It is traced how all the steps in that process are performed and how it is controlled. If they are made in the best way, one can expect the best results.

This approach is conceptually similar to total quality control. It is also applied in ISO-standards. Once everything "inside" in the "white box" is made in the best way "creating" quality, there is no need of special attention to what is at the entrance, which is essential with other methods.

The method is applicable in the National Evaluation System in Bulgaria (NEAA). For example, 14 criteria are used for institutional accreditation, much more indicators and 127 assessments with maximum values of 0.2 to 4.0 in a 100-point interval scale. The method is also applied in BURS to determine ratings of professional fields at different universities:

To objectify assessments, evaluation is:

- **Multi-factorial (Multi-criteria).** Set of assessment factors and criteria directly related to the standards for the certain object; it covers and seals the concept of quality.
- **Multi-subjective.** There are minimum three different evaluating entities (parties) with different viewpoints. Those who have opposing interests are deliberately selected. They are usually grouped in users, self-assessment entities, and independent evaluators.
- **Quantitative.** Quantitative assessment is determination of the degree of approximation of "what is" to "what should be" (standard). Assessments are given for criteria and indicators in 100-point interval scale, as the maximum for each criterion and indicator is pre-defined that depends on its weight.
- **Expert.** No formal evaluation methods are looked for and proposed. There are no precise measures and formalizations with evaluating quality indicators both in the national evaluation system and the university one. It relies on the expertise of multi-subject..

It is assumed that formal models cannot cover all sides and shades and are usually highly stylized. The mathematical relationships are rather questionable. That causes inexactness. Moreover, the evaluators are not responsible; they are not deeply involved in the evaluation process. It is why assessment should be expert by nature, based on direct and indirect impressions, personal experience and expertise on current and objective information from public and verified data of the university. The fulcrum of evaluation is presented by standards and requirements for assessments.

The multi-subjective evaluation requires evaluators with different interests: self-evaluation, users and independent experts.

Users include: employers who use university products: business entities, companies, public and social organizations; undergraduate and graduate students and when assessing a subject – fellow teachers in subjects chronologically following the one under evaluation.

Independent evaluators include industrial, professional and trade organizations (Union of Electrical Engineers, Chamber of Civil Engineers, Union of Scientists, Federation of Scientific Unions, Medical Association, Union of Economists, Union of Lawyers, etc.), editorial boards of journals, etc; former undergraduate and graduate students; Master degree students – for undergraduate courses; PhD students – for Master degree programmes.

2.5 Criteria and indicators

Quality is not a physical quantity and in strict metrological aspect it cannot be measured. Therefore, as stated above, different "viewpoints" are evaluated – quality criteria that can be assumed as analogous to physical quantities.

Criteria and indicators are developed for each of the evaluated objects. They have different significance, which is determined by specific weight coefficients or as percentage of the total evaluation. That is determined by the governing body – the one that "makes policy" of quality.

Criteria (indicators) for the quality of education are divisions of the criteria. The relationship between criteria and its performance is hierarchical. The criterion is a consolidated component of the complex (aggregated) assessment of quality and stands at the "entrance" of the process. The

indicator is a component of the criterion summarizing the initial data of quality and "lies" at its "exit". The indicators do not contain quality explicitly, so evaluators are not tempted to be subjective, in particular to liberalize their assessments as in the case of direct quality assessment. This indirectness increases the reliability of assessments.

The assessment follows the principles, logics and mechanisms of programme accreditation in the national evaluation system. They have to be "transferred" and creatively transformed from professional fields to training programmes, subjects and teachers.

2.6 Validation of assessments

Assessments are probed on the university website before being proved (validated) to use. Anyone can make remarks and comments. Transparency and public awareness as factors for objectivity are relied on.

The validation of assessments is done according to an established way through faculty and university management bodies taking into account the comments on their publication. The results of the evaluation are processed electronically. The final estimates are published on the faculty website.

The evaluation of a teacher, subject or programme is an element of the non-formalized space where subjectivism cannot be overcome in principle. Objectification requires multi-factorial and multi-subjective nature but they lead to complexity. When it is very complex, it might be inapplicable or inefficient. On the other hand, the lack of quantitative measures does not allow adequate stimulation of the teacher and leader. The problem of reasonable sufficiency is on optimization one. Nowadays electronic communication and processing made acceptable even more complex system.

2.7 Assessment of students

The assessment of student's success and achievements is the subject of research and internal university rules, often incorporated into the academic standards of courses and graduation.

The standards of assessing student's achievements should be defined in a way to

objectify grades of students who should not crucially depend on the teacher, his preferences and personal attitude. They should be irrelevant to his personality.

A sample formalization of standards for evaluation could be:

- **Excellent** – very good knowledge of information sources, thoroughly mastered key and additional knowledge and skills, meaningful and proper understanding of the subject issues, skills to solve complex problems, own thinking and reasoning of decisions.
- **Very good** – for well-acquired key and additional knowledge, meaningful and proper understanding of the subject issue, skills to apply knowledge to complex case studies and problems.
- **Good** – for acquisition of key and additional knowledge to solve case studies and problems without being mandatory to reach independent thinking and creativity.
- **Satisfactory** – for acquisition of key knowledge and solutions of simple problems.
- **Failed** – if it meets none of the requirements given above.

The final grade determines to what the extent the student has achieved the aim of teaching a given course, module or another element of educational activity. It should be multicomponent. Besides a written exam (in the prevailing case), the final grade should include the student's work and achievements during the semester, assessment of his/her interaction with the teacher, including research and projects.

Within the effort to objectify grades, here it is proposed to introduce external evaluation and anonymous assessment of the written exam. The external evaluation should be independent of the subject holder, controlled by the management body (e.g. Faculty Council). External assessors should be professors from leading universities, possibly foreign, as well as eminent professionals (possibly with PhD degrees) from advanced business and public practice. This century-old practice of the United Kingdom has given good results in some Bulgarian universities recently: both for objectifying assessments and harmonization with business needs and

requirements of the national and European standards.

The annual grade that serves to stimulate the student for quality of his/her training and academic achievements should be linked to the credits of subjects $g_1, g_2, g_3, \dots, g_n$ according to the curriculum. It should be calculated as a weighted average of all grades $x_1, x_2, x_3, \dots, x_n$ throughout the school year by applying the following formula (1):

$$m = \frac{\sum_i x_i g_i}{\sum_i g_i} = \frac{x_1 \cdot g_1 + x_2 \cdot g_2 + \dots + x_n \cdot g_n}{g_1 + g_2 + \dots + g_n}$$

Thus the annual success rate of each student is objectified taking into account also the structure of his/her knowledge and skills and their importance.

2.8 Harmonization and comparative analysis of evaluation systems and standards on different levels

The European Qualifications Framework (EQF) is a standard of the European Higher Education Area (EHEA) related to what a graduate, holder of the respective degree, must know, understand and what can do. Adopting the EQF, the European institutions have committed to the unity of requirements, which each country of the EHEA should strive to. It is a tool that aims to make qualifications and education systems in different countries of the community more easily recognizable and comparable. The EQF facilitates the mutual recognition and it is important for learners and employers. It promotes mobility of students and PhD students to an extent comparable or higher than through the European Credit Transfer System (ECTS).

Currently education in the EEA member countries should be brought in compliance with the European standards ensuring equivalence of degrees and harmonized with the NQF, which presumably is harmonized with the EQF (framework standards). However, the high level of abstraction, which the EQF and NQF are necessarily written on (to be generally valid), does not allow to directly use them for development of educational content. To decrypt and specify knowledge, skills, values and professional qualifications arising from the framework standards for each programme, it is necessary to apply intellectual effort in the presence of high professional competence in this programme.

To achieve confidence that knowledge, skills, values and professional qualifications have been acquired, they should be "implanted" in the curriculum and verified at testing and graduation of students. Upon accreditation of a professional field, they should be checked on validity. Otherwise these framework standards will remain only good wishes. Currently that is not a fact. They are absent in the NEAA criteria and academic quality systems.

The internal evaluation of programmes at the university shall be made according to criteria, rules and mechanisms arising from the NEAA and BURS criteria and in similar numerical scale. It is necessary to avoid divergence and focus the efforts of academic staff and students on activities and areas recognized as important and valuable in the stage of development. Thus it is possible to obtain better chances for top ranking of the respective university in BURS, which is financially rewarded by the state.

The positive differences from the evaluation system of NEAA and to a bigger extent from rating offered by BURS are as follows:

- academic standards as reference points for quality assessment, which do not exist in national evaluation systems;
- including users and independent evaluators in assessment, which cannot be said about NEAA despite some positive steps in that direction;
- development of rules and mechanisms (some of them being offered in this paper) to overcome subjectivity in evaluation, which is too strong in accreditation.

At the same time there are significant differences between national rules and university standards. Here are some of them:

1. National criteria refer to all types of universities in Bulgaria without considering their missions, visions, values and goals. This makes these criteria sufficiently abstract and general. University quality criteria, hence academic standards as a basis of quality assessment have to meet the peculiarities and requirements of the respective university.
2. Under the conditions of competition on the intellectual market, each university looks for its niche, opportunities to unfold its strengths,

which brings meaningful specificity both in standards and their implementation. Best universities can afford higher standards that meet the interests of well-trained, motivated and talented students.

3. QUALITY IMPROVEMENT

3.1 Stimulation of teachers and leaders

Stimuli have moral and material expression.

The recognition of academic teachers as scientists, their aspiration for promotion and getting professorship, are deeply embedded values in everyone with academic career. That is why he/she is sensitive to injustice in evaluation and has a right to respond when being undervalued. It is a sign of his professional honour and teaching dignity which affects significantly on his/her motivation at the university and ultimately on the quality of his/her product. Therefore, the establishment and proper functioning of quality assessment systems and university management of teacher's motivation are so much important.

Quality management systems should motivate teachers. They should close the feedback: evaluation of the achieved quality, reward for those who achieve quality, quality improvement, evaluation, etc. They should offer personalized treatment to the teacher removing proven contraindication equalization of remuneration for one and the same position.

Of course, justice requires also adequate money equivalent. It does not concern separate and sporadic awards but systematic link of financing with the final results of everyone's work. The system of quality management only submits its evaluation in a 100- degree scale.

The existing situation when all at one and the same academic position receive one and the same salary despite the difference in quality of results and quantity of their creative work, which is very different, sometimes measured in times, creates a sense of injustice. That is the moral ground for demotivation of many of the academic staff who do not get recognition they deserve. It does not create the competitive behaviour, which is characteristic of the world we now live in.

It is possible to suggest a formal model used to obtain a quantitative measure for appropriate

remuneration. Besides the academic position that a person occupies at university, the scientific degree that one has acquired, the academic load, measured by the standards of academic employment, the model must take into account the quality of education and research. An important factor supporting this thesis is that, through the budget, the government stimulates quality as determined by the established ranking system. Since it operates on national level and after changing the Higher Education Act in early 2016, which strengthened the significance of this factor, it must be applied to evaluate teachers at the university carried out by the same approach. Thus the approach is transferred from professional fields to the person at the university already appreciated by an objectified university system of quality management. A unified system "from top – to bottom" is created.

3.2 Stimulation of students

The grades in the preceding year derived as an average of semester exams are used in all initiatives to reward students for their success. But they have questionable objectivity.

It is also proposed to discuss the idea of a global stimulating system.

It understands that students pay full tuition for their education determined by the university itself. However, this money is not their own but money of the government, which so far have been provided to universities as budget subsidies. Money is given to students as vouchers in a certain order (including competitions). Students "carry" funds for their education at the higher school where they have decided to study. It is against a contract with the government for a credit, which might not be returned under certain conditions. A regulator of returning the loan is introduced, the fundamentals of which are:

- If the student works abroad after the graduation, he/she returns the credit for a certain period.
- The one who work in Bulgaria, pays back the loan after the grace period: completely or partially depending on his/her achievements and successful career in the field of study.
- The government absolves loans to students with highest results.

The model is developed under the conditions of balanced regulation

The total state subsidy for education, which is a component of the state budget for higher education, is provided in the form of vouchers according to government priorities, which regulates public interest through. The government promotes targeted training in priority professional fields and protected fields of national importance announcing more vouchers and more favourable contract terms with the student.

The right of universities to determine their own tuition fees increases their autonomy, fixed in Art. 53 of the Bulgarian Constitution, and makes the market real. The created free exchange generates competition of applicants and of universities.

The system of loan returning compels students to carefully select their programmes as they think economically motivated for their future career (now it is now a fact). Since the student is going to work in his/her professional field, one will make efforts to improve one's training. Now he/she will exert pressure on teachers to get advanced knowledge and applicable skills. The share of students who study at the government expense to get a "diploma" and in unwanted programmes without intent to work in the corresponding fields will decrease.

This model creates levers of management and implementation of the state policy. The model is economically viable for the budget because the loans given to students whose career is not in the field of their studies or have gone abroad as well as part of the loans given to students without high grades are returned to the state budget.

4. CONCLUSION

The paper proposes models to evaluate teachers for quality results. On this evaluation basis a stimulating system for academic staff is offered, through which the university personalize its attitude to every teacher.

The approaches and principles, which are suggested, guarantee the objectivity of evaluation, which is not closed within the university but also involves the users of the university product. To implement such a system, it should not raise serious objections. There should be general agreement and recognition. The assessments

should be public at least within the university and the incentives for those who have achieved quality should from be derived from the assessments.

The coordination of systems for evaluation on European, national and university levels will result in a single system of university management, being in its nature from "top" to "bottom", that:

1. Transfers the principles, methods and mechanisms of the national evaluation system from the national level to university one, while improving them;
2. Directs aspirations and forms interests harmonious and synergistic to the NQF, mission, values and policies of higher education;
3. Creates prerequisites for better ranking in the national ranking system of professional fields with consequent budget bonuses for the university;
4. Motivates students to study more and participate in evaluation because it already depends on them a lot and they can see that.

5. Solves the problems of relationships with users who become part of the system.
6. Due to the feedback between quality and remuneration the system can self-improve and enhance its adequacy and efficiency

Such university management that stimulates quality can be expected to have effects associated with a complete change in the atmosphere of university. Redistribution of funding to leading university teachers and leaders could occur and over time it could cause natural selection of academic staff in favour of quality. The joint evaluation activity will inevitably bring universities and businesses nearer and the gap between them will start to close.

The system has ability of self-improvement thanks to the strong feedback. Shortcomings, gaps and weaknesses in the evaluation criteria and mechanisms would violate the interests of teachers and leaders and will cause timely adjustments.

WORKS CITED

- EC. (2008). *The European Qualifications Framework for Lifelong Learning (EQF)*. doi:10.2766/14352
- ENQA. (2015). *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*. Retrieved from European Association for Quality Assurance in Higher Education (ENQA): http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf
- Hristova, M. (2007). *Quantitative Methods for Evaluation and Quality Management of Education in the Universities - dissertations for degree "doctor"*. Sofia.
- IREG. (2013). *Bulgarian University Ranking System*. Retrieved from IREG Observatory on Academic Ranking and Excellence: <http://ireg-observatory.org/en/index.php/ranking-profile?ranking=32&view=application>
- Natsionalna kvalifikatsionna ramka na Republika Bulgariya*. (2012, Feb 02). Retrieved from Ministerski savet - Portal na obstetstveni konsultacii: <http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=719>
- SEC(2011) 1063 final. (2011, 09 20). *Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee and the Committee of the Regions - Supporting growth and jobs – an agenda for the modernisation of Europe's higher education systems*. Retrieved from European Commission: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0567&from=EN>

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RUSSIAN RESERVE FUND MANAGEMENT: PROBLEMS AND PROSPECTS

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Abstract

The international experience on the use of state reserve funds for economic development approves that the infrastructure facilities deficit affects the development of non-energy sectors and holds the economic growth, in spite of the improving investment climate in the country. The effective bankroll investment of Russian Reserve Funds (the Reserve Fund and National Welfare Fund) is the integral part of the active state investment policy which facilitates lifting of the infrastructure restrictions. Generally, the countries establish reserve funds when their budget is highly dependent on market factors and global commodity prices. These funds have two functions. Firstly, the resources could be used to cover the budget deficit at the time of adverse conditions. Secondly, funds allow to accumulate extra export revenues and to prevent the Dutch disease when commodity prices increase. The state reserve fund is a special monetary fund which is used to stabilize the budget during budget revenues decreasing and for state long term purposes. Apart from resolving economic problems, the reserve fund have a political mission to prevent government expenditures growth. Traditionally, it is impossible to reduce quickly government expenditures after the drop in budget income. As a result, this situation entails large budget deficit, nonfulfillment of social obligations and the government debt default in terms of adverse market conditions. It is essential to improve the investment efficiency of the fund's resources for the Russian Reserve Funds (NWF and the Reserve Fund) best practice. The article is devoted to the issue of Russian reserve funds management.

Keywords: state reserve funds, National Welfare Fund (NWF), Central Bank of Russia, investment

1 RESERVE FUNDS ESTABLISHMENT AND USE

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In 2008 the Reserve Fund and National Welfare Fund were established after the subdivision of the Stabilization Fund. These Funds are filled out of

the budget resources, which are derived from oil and gas revenues.

As a kind of financial reserves, reserve funds are characterized by some specific features:

- they are multi-zone applications and related to centralized social reserves;
- these funds have a huge influence on the reproduction process because they contribute to the sustainability of the economy as a whole and its sectors in case of emergency and unforeseen complications;
- funds are always legislative;
- they are universal in use as they are intended to cover any additional financial requirement of the budget in case of emergency and unforeseen complications. (Gryaznova, 2012)

The fund's form of spending depends on the functional purpose of resource allocation. The order of spending is established in the regulations of the Government of the Russian Federation, State executive branches and local authorities. On a quarterly basis they are required to inform the appropriate legislative (representative) authorities on the fund's expenditure. This system of the information makes possible the current control over the targeted and efficient fund's use.

Oil and gas revenues are formed by:

- tax on natural resources production (oil, combustible natural gases, natural gas liquids);
- export customs duties on crude oil;
- export customs duties on natural gas;
- export duties on goods produced from oil. (Minfin Rossii, 2016)

Annually a certain portion of these revenues in the form of an oil and gas is spent to budget expenditures financing. The value of oil and gas transfer approved by the Federal budget act for the financial year and planning period in absolute terms, calculated as the 3.7% of the GDP forecasted for the corresponding year.

All oil and gas revenues are accumulated in the Reserve Fund after the setting up of the oil and gas transfer. The regulatory value of the Reserve Fund is approved by the Federal budget law for the corresponding financial year and planning

period in absolute terms of 10 % of the forecasted GDP. Retained oil and gas revenues are transferred to NWF after filling the Reserve Fund up to the approved amount.¹ Another source of the filling the Reserve Fund are its return on investment.

In 2012 the Russian Government has changed the procedure of filling the Reserve Fund and NWF. The essence of the new "fiscal rule" is following (Navoy & Shalunova, 2014):

1. oil and gas revenues forecast is based on average oil price over the last 10 years;
2. "extra" revenues are accumulated in the Reserve Fund until it reaches 7% of GDP;
3. minimum 50% of the extra oil and gas revenues are transferred to NWF and the remaining funds are transferred for the realization of the infrastructure projects and other priorities after the fulfilling of the Reserve Fund;
4. in case of the low oil price the budget deficit is covered by the resources from the Reserve Fund. (Decree No. 699, 2013)

Nowadays the Reserve Fund is 4.3% of GDP. Therefore, the new revenues will be used to replenish this Fund. The unique source of NWF replenishment will be the return on its investment. It's important to mention that the dynamics of filling the Reserve Fund reflects the global market conditions of fuel and energy products and aims to transform the extra revenues from the foreign trade activity into the long-term savings of the economy. Russian Reserve Funds are used in compensatory and regulatory purposes. (Navoy & Shalunova, 2014)

However, the model of the Russian Reserve Funds establishment and use is not optimum. Thus, the funds accumulation is an inefficient form of savings, due to the extremely low level of return on investment of Reserve Funds resources in terms of accelerating inflation.

Potentially, Reserve Funds resources could be used for the acquisition and development of producing and distributing infrastructure for the Russian companies abroad. These funds could facilitate the funding of the centralized international procurement of high-tech equipment,

¹ In accordance with (Putin, 2010)

technology, etc. Nowadays, the replenishment of National Funds is a lever to expand the bank's funding base and public sector of developed countries. Although, they must be referred to solve Russian domestic problems.

2 NWF ASSET MANAGEMENT

The NWF asset management has two targets: the guard against Fund's loss and solid return on investment (ROI) in the long term. Considering these goals, the NWF asset management entertains the possibility of negative ROI in the short term. (Jeltsin, 1998)

The Ministry of Finance of the Russian Federation provides the Fund's asset management by the following means:

1. acquisition of foreign exchange and its allocation on Fund's foreign proceeds accounts in the Central Bank of the Russian Federation (US dollar, euro, pound sterling). The Central Bank of the Russian Federation pays the interest established in bank account agreement for the use of Fund's resources;
2. allocation of the Fund's reserves in foreign currencies and financial assets denominated in the Russian rubles and allowed foreign currencies (allowed financial assets). (Decree N955, 2007)

The Ministry of Finance manages NWF assets in accordance with the first method, that is, by allocation of foreign exchange on Fund's foreign exchange proceeds accounts in the Central Bank of the Russian Federation. The Central Bank of the Russian Federation pays the interest on arrears which is equivalent to the index yield. This index is generated by financial assets that could accommodate the reserves of NWF.

The Government of the Russian Federation has established the following requirements for such financial assets:

1. NWF reserves could be invested into the debt obligations in the form of foreign securities of the following countries: Austria, Belgium, UK, Germany, USA and others.
2. Debt obligations must meet the following requirements:
 - foreign debt emitents must have a rating of long-term credit status rating not lower than level "AA-" on classification of rating agencies Fitch-Ratings or Standard &

Poor's or which is not below "Aa3" on classification of rating agency Moody's Investors Service; (Decree No. 805, 2008)

- Russian debt emitents must have a rating of long-term credit rating not lower than "BBB-" on classification of rating agencies Fitch-Ratings or Standard & Poor's or which is not below "Baa3" on classification of rating Agency Moody's Investors Service;
 - maturities of debt securities are fixed, their terms of issue and circulation do not provide the right of their prior redemption (repayment);
 - minimum and maximum maturities of debt securities are set by the Ministry of Finance and they have a mandatory nature;
 - the volume of debt obligations in circulation denominated in Russian rubles amounts not less than to 1 billion rubles, etc.
3. NWF reserves could be accommodated in the debt obligations of following international financial institutions: Asian Development Bank (ABD); Council of Europe Development Bank (CEB); European Bank for Reconstruction and Development (EBRD); International Bank for Reconstruction and Development (IBRD), etc.
 4. Corporate shares and units of investment funds should meet the following requirements: corporate shares should be listed at least on the one stock exchange; shares of foreign emitents must be included in the lists of securities which are used in the index computation of MSCI World Index and FTSE All-World Index.
 5. Deposits of Vnesheconombank should comply with the following requirements: denominated in the Russian rubles, the US dollars, euros and the British pounds; the maximum allowable amount on the ruble account is 955 billion rubles etc.
 6. The Ministry of Finance of the Russian Federation entitled to establish additional requirements for allowed financial assets within the limits established by the government of the Russian Federation. (Order No.3, 2008)

The most acute are the issues of the sovereign funds and the NWF assets management strategy.

Russian sovereign funds reserves are placed into fund's proceeds accounts in the Central Bank of the Russian Federation in allowed foreign currency (US dollar, euro, pound sterling) based on the Bank account agreement between Federal Treasury and the Central Bank of the Russian Federation. The Central Bank of the Russian Federation pays the interest established in bank account agreement for the use of sovereign fund's resources. The Central Bank is the core agent of the Ministry of Finance on funds asset management. It is important to mention, that the existing system provides funds an exemption from seizure of foreign captation.

3 RESERVE FUND'S PROBLEMS AND DEVELOPMENT PROSPECTS

It's worth pointing out that the volume of the Russian Reserve Funds has decreased. Thus, on the 1 of March 2016 the total volume of the Reserve Fund amounted to 3 trillion 747,06 billion rubles (49,9 billion dollars), NWF amounted to 5 trillion 356,96 billion (71,34 billion dollars). (Interfaks, 2016) Nowadays the authorities of the Russian Federation actively use the Reserve Fund to cover the budget deficit. In 2016 2,137 trillion rubles could be used for these purposes. By the end of 2016 the Reserve Fund may remain 1,051 trillion rubles (31% of the Fund's reserves at the beginning of the year). (Minfin Rossii, 2016)

In 2017 the Government of the Russian Federation will have only three main sources to cover the budget deficit: The Reserve Fund balance, NWF resources and return on domestic investment.

The economic slowdown in Russia encouraged many Russian state-run corporations to apply to the authorities for NWF resources. Nevertheless, the crisis bailout plan deprived of the funding several ambitious projects. (Krivoshapko, 2015) Minimum 2 trillion rubles should be remained in the Reserve Fund by the end of 2018. (Krivoshapko, 2015)

As soon as the Government of the Russian Federation decided to allocate NWF resources in infrastructure, a lot of companies have demanded to increase the investment limit of 40% up to 50%

or 60%. As a result, competition for funds has increased drastically. In the mid-2014, the total amount of applications exceeded the size of NWF. In 2014 over a hundred applications came in, in 2015 only 12 applications were from the state-run corporation Rosneft. Rosneft applied for the compensation of external financing because of the sanctions. First of all, Rosneft made a request for 2,44 trillion rubles to develop 28 strategic projects (the total amount of NWF resources was about 3 trillion rubles). The Ministry for Economic Development received 28 separate applications from the company (1.3 trillion rubles) by January 2016. Nowadays only 5 corporation's projects are approved (for 300 billion rubles).

The most persuasive lobbyists were the state-run corporation Rosatom and the Russian Direct Investment Fund (RDIF). In June 2014 the Government has set their individual quotas – 10% of NWF, but not more than 290 billion rubles. RDIF was the first recipient of the Fund. In December RDIF received a little more than 5 billion rubles for two projects: elimination of "digital gap" in association with "Rostelecom" and implementation of "smart grid" in association with "Russian grids".

Unfortunately, these investments should wait. Sanctions and the crisis forced the authorities to reconsider their attitude to the Funds. It is obvious that infrastructure projects are long-run projects and a large part of the funds should be kept liquid in the situation of a complex geopolitical situation, sanctions and a foreign markets foreclosure.

In 2014 the oil price became half as low. The ruble fell against the dollar by 50% and the inflation increased to 11.4% (the highest rate since the crisis of 2008, 13.3%). GDP growth decelerated to 0.6% (the lowest rate since 1999, excluding the crisis year of 2009). Russia is in a very difficult situation. In the current situation the Reserve Fund will be exhausted in two years. According to the Ministry of Finance, 3.2 trillion rubles were necessary to cover the budget deficit and 1.16 trillion might be spent in 2016. NWF resources will be spent to cover the budget deficit after the exhaustion of the Reserve Fund.

The President decided be the main decision maker. The President's permission will be necessary to invest NWF resources. The Government's decision was enough earlier. (Titov,

2015) The President ordered to invest into six projects: The Central Ring Road, the Baikal-Amur Mainline, the Atomic Power Station "Hanhikivi-1" in Finland, elimination of "digital gap", "Yamal LNG" (liquefied natural gas) and the purchase of locomotives for Russian Railways. Thus, the President has approved investments of just over 600 billion rubles. Together with subordinated deposits of Vnesheconombank (including the crisis bailout plan), the investments in shares of banks and 5 billion rubles, previously invested in the projects of RDIF, would exceed one third of NWF volume by the 1 March. The amount of investment is reduced in some projects and order is changed. For example, only the first and the fifth sections of the Central Ring Road are approved to invest. In the next 10-15 years NWF resources might be required for post-employment benefits. The return on investment might be extremely low and its use to support the pension system or to implement the crisis bailout plan will be impossible.

On the one hand, the amount of NWF resources has increased due to the ruble devaluation. Last year it increased by 1.5 trillion rubles. On the other hand, the ruble depreciation encourage inflation, that will entail an additional indexation of pensions. In such uncertain situation it is impossible to claim that the reserves will be enough. It should be kept in mind that existing recession leads to the higher unemployment rate. Inevitable, this situation will reduce the pension contributions and expand the Pension fund deficit. The pension system problems will increase. (Titov, 2015)

4 RECOMMENDATIONS ON NWF RESOURCES USE

During the process of generating the recommendations on the use of NWF resources for the economic development it is necessary to consider that the deficit of infrastructure facilities, which provides the strongest negative influence on the development of non-energy sectors, becomes a main factor that affects the economic growth in the context of investment environment improvement. The effective investment of NWF resources is the integral part of the active government policy which is necessary to remove infrastructure restrictions.

The Fund investment should be based on the principles of diversification and reliability of financial instruments. In our opinion, it is useful to involve specialized financial institutions into the Fund's asset management.

We believe that the NWF purpose is not to cover the deficit of the Russian Pension Fund in the coming years, but to be capable to ensure the financial sustainability of the Russian Pension Fund in the future. The optimum alternative is to accumulate NWF resources in the sufficient amount to cover the deficit of Russian Pension Fund in the future from the NWF's asset management.

It seems appropriate to provide the possibility to invest funds into domestic risk-free financial instruments, such as debentures and corporate shares, as well as into units of investment funds.

The investment in these instruments will ensure the long-term investment inflow to the Russian economy (but bank deposits and bank balances in Russian banks and credit organizations are short and medium-term resources).

Nowadays, the Ministry of Finance of the Russian Federation does not have any proposals on the merger or transformation of the Reserve Fund and NWF. In our opinion, it is useful to merge the Reserve Fund with NWF and to manage them as a single instrument.

Active asset management might ensure maximum return at a reasonable risk level. Thus, in our opinion, the following is necessary for the funds asset management:

- the long-term strategy of funds generation and use,
- the qualified investment management,
- the political independence,
- the protection from inflation,
- the universal method of operations efficiency analysis.

5 CONCLUSION

We believe that the mechanisms of funds disbursement for long-term economic development are still crude. In our opinion, the most acute problems, among the problems of funds generation and use, are:

- the lack of a clear strategy for the asset management which may ensure the soundness and increase of the funds' assets;
- the information on the use of the funds is not in the public access, thus, it is difficult to determine the real effectiveness of the funds asset management.

From our point of view, the bailout plan should include the revision of the NWF use in favor of domestic long-term investment and investments in infrastructure projects.

It is necessary to increase the return on funds investment for the funds effective functioning. We propose the following options to improve the Russian Reserve Funds efficiency and, as a consequence, their return on investment:

- to invest in projects which will increase living standards and personal income (the investment in “national welfare”: the construction of stadiums, sports grounds, centers of education and retraining);
- to invest more than 10% of funds in foreign debt obligations with a higher risk level;
- to invest around 10% of funds in stocks, bonds, private funds, infrastructure

- companies and real estate, taking into consideration the experience of foreign funds;
- to improve the competitiveness of non-resource industries in the long term (one of the main problems of the Russian economy is the resource curse, thus the development of high technologies, agriculture, tourism and other industries will make Russian producers more competitive at the global market and will make the economy less dependent on global oil prices);
- the co-financing of major investment projects (for example, Transsib) is necessary for the economic recovery and infrastructure development in Russia;
- the rules, mechanisms and criteria for funds spending, as well as the extent of responsibility of authorities for misuse of reserve funds should be in a public use.

Moreover, in our point of view, it is necessary to think about the funds asset management by specialized financial institutions. In our opinion, the foreign experience investigation of reserve funds generation and use will facilitate implementing of this experience in the Russian Federation.

WORKS CITED

- Decree N955. (2007, Dec 29). *Order of the Government of the Russian Federation N955*. Retrieved from cis-legislation.com: <http://cis-legislation.com/document.fwx?rgn=20723>
- Decree No. 699. (2013, Aug 14). *Order of the Government of the Russian Federation*. Retrieved from cis-legislation.com: <http://cis-legislation.com/document.fwx?rgn=61906>
- Decree No. 805. (2008, Nov 06). *The decree of the Government of the Russian Federation of 6 November 2008 No. 805*. Retrieved from Ministry of Finance of the Russian Federation: <http://www1.minfin.ru/ru/nationalwealthfund/legalframework/>
- Gryaznova, A. G. (2012). *Finance*. Moscow: Finance and statistics.
- Interfaks. (2016, Mar 16). *Minfin ne soglasilsya pogasit' gosdolg sredstvami Rezervnogo fonda*. Retrieved from movosti@mail.ru: <https://news.mail.ru/economics/25144832/?frommail=1/>
- Jeltsin, B. (1998, July 31). *The Budget code of the Russian Federation, Chapter 13.2, article 96.11, clause 2*. Retrieved from Garant: http://www1.worldbank.org/publicsector/pe/BudgetLaws/Budget_Code_Russia_Eng1998.pdf
- Krivoshapko, Y. (2015, Sep 16). *Minfin sokhranit ob'yem Rezervnogo fonda na urovne 2 trillionov rubley*. Retrieved from Rossiyskaya gazeta: <https://rg.ru/2015/09/16/fond-site-anons.html>
- Minfin Rossii. (2016, Apr 10). *Formirovanie*. Retrieved from Ministerstvo finansov Rossijskoj Federacii: <http://old.minfin.ru/ru/reservefund/accumulation/>

- Minfin Rossii. (2016, Jun 01). *Informatsionnoye soobshcheniye o rezul'tatakh razmeshcheniya sredstv Rezervnogo fonda i Fonda natsional'nogo blagosostoyaniya*. Retrieved from Minfin Rossii: <http://www.minfin.ru/ru/performance/nationalwealthfund/#>
- Navoy, A. V., & Shalunova, L. I. (2014). Rezervnyy fond i Fond natsional'nogo blagosostoyaniya Rossii v mezhdunarodnoy sisteme suverennykh fondov. *Den'gi i kredit*(2), 26-33.
- Order No.3. (2008, Jan 16). *Order of the Ministry of Finance of the Russian Federation from January 16, 2008 of No.3*. Retrieved from Ministry of Justice Russian Federation: <http://old.minfin.ru/en/reservefund/management/>
- Putin, V. (2010, Sept 30). *On amendments to the Budget code of the Russian Federation and other legislative acts of the Russian Federation*. Retrieved from Global-Regulation: <https://www.global-regulation.com/translation/russia/2946361/on-amendments-to-the-budget-code-of-the-russian-federation%252c-article-6-of-the-federal-law-%2526quot%253bon-amendments-to-the-budget-code-of-the-russian-f.html>
- Titov, S. (2015, Mar 05). *Zanachka natsii: nadolgo li khvatit Fonda natsional'nogo blagosostoyaniya*. Retrieved from RBK: <http://www.rbc.ru/finances/05/03/2015/54f73f9a9a794746bb1165ff>

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MATHEMATICAL MODEL FOR THE INTELLIGENTIAL TRAFFIC MANAGEMENT SYSTEM OF THE BUSES

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Abstract

This paper is devoted to improving the mathematical support for the intelligential traffic management system of city buses. It provides an overview of what is the real state of the-art with respect to traffic flow theory. A new mathematical model of the buses motion has been generating in consideration of stochastic factors. The model allows the calculating immediate changes in the city buses schedules connected with speed parameters. The priority will be giving to buses at traffic lights helping them to run on schedule, because traffic lights are able to adapt to the traffic flow and maintain its optimal levels. The check of mathematical model's adequacy is proposing on the example of the Lugansk region cities (Ukraine). The algorithm and computer program have been developing, that realize the modeling module using a programming environment Delphi. The model and program realization make allowance for increasing the efficiency of passenger service when projecting city passenger transports. With regard to the traffic organization, the automated control system as the element of the intelligential transport systems plays the increasingly important role as a key component of the transport system, which is able to form the right choice for customers across a network, to support safe travel.

Keywords: modeling, intelligientia transport systems, information systems, dispatching control, transport flow, passenger flow

1 INTRODUCTION

Every system of management in terms of technology of its operation resolves three main tasks: collection and transmission of information about the controlled object, processing of information and, finally, issue of control actions on the object of control. Automated control system

(ACS) automates all the steps. This is the first to differ ACS from the simple use of computers in management. The simple using of computers is to solve individual problems of management, i.e., processing of information, but stages of gathering information and formation of control actions are not automated here.

There are two basic types of control systems: technological process control systems (TPCS) and organizational or administrative control systems (ACS) (Smulders, 1989).

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Recently, there is a trend to merger ITMS and ACS into a single integrated management system, see fig. 1.



Fig. 1 Intelligent traffic management system of the buses

During the last years developers increasingly have to solve problems of designing control system of so complex nature that it became simply impossible to use for design purposes old experienced methods (Nikolaev, Aleksakhin, Kuznetsov, & Stroganov, 2003).

Deterministic mathematical programming models are often inadequate to real technological processes. This is due, primarily, to the inaccuracy of the probabilistic nature of the indications and limitations that are imposed on the model of the enterprise. Planning based on the most optimistic forecasts, the factors contributing to the production and consumption, often turns out to be untenable because of the lack of provision for the correction of inconsistencies that arise when any link in the chain of production yields less than expected for the optimistic forecast. It is much better to plan for the average performance if their

spread is large enough. And in this case the real values of the indicators may differ significantly from the mean values, and the proposed plan would be unworkable (Closs, Davidson, Dawe, Templeton, & Levitt, 2007).

2 MATHEMATICAL MODELING OF DRIVING TRAFFIC FLOWS

Every system of control in terms of its functioning technology solves three main tasks: the collection and transmission of information about the controlled object, information processing, and finally the issue of control actions on the object of control. Automated Control System (ACS) automates all these steps (Mikulski, 2011).

There are two basic types of automated control systems: technological process control systems (TPCS) and organizational or administration

control systems (ACS) (Xiao-feng, Zhong-ke, & Kai, 2003).

In recent years the trend to merger control system into a single ACS integrated control systems. With such a confluence of all the majority of circulating in the system information is transmitted in the form of signals, and special types of documents on computer media. Thus, the boundary between TPCS and ACS to a certain extent is blurred.

The inclusion of computers in an object control system requires the developer to do a lot of effort. First, to fill it with programs related to technology management, align it with the dynamics of the dynamic characteristics of a real object, and finally to agree on the physical form of the signals coming from the object into the computer and issued from the computer to an object (Transportation & Logistics 2030 Volume 4: Securing the supply chain, 2012, pp. 25-29) (OECD, 2002).

2.1 Review and analysis of previous studies and statement of the problem

If the control algorithm is stringent, quite simple and fully known to the customer and the developer, it is very easy to program a computer work, laying in her memory, for example, the table given automaton encoding of inputs and outputs associated with the object of control (Smulders, 1989). Coding of internal states, there may be arbitrary.

If the control algorithm is not stringent, if in the process of decision to grant the object of control signals to solve various optimization problems, if, finally, in the first stage of experimental verification of the control system is an accumulation of new information about an object, previously unknown to the customer or developer, then the use of computers is warranted. Suppose that at some discrete moment of time t (since the computer works in discrete time, it makes sense to consider the work of the entire control system in discrete time) to the input of the control system receives a set of signals, characterized by the vector: $\langle \alpha_1, \dots, \alpha_n, \beta_1, \dots, \beta_m, r_1, \dots, r_q \rangle$. We will call this set the situation at the moment t and write it as $S(t)$ (Mohan, Padmanabhan, & Ramjee, 2008).

As an instant photograph $S(t)$ contains all the information about the object of control, which can be collected at this time. The task of management is that on the basis of knowledge about $S(t)$, and some additional knowledge about the object to give the smallest possible delay of the control actions on the object, forming a vector $\langle u_1, u_2, \dots, u_l \rangle$. This vector is called a solution at the moment t and will be denoted as $U(t)$. Formally, the control problem is that when a computer at the entrance of the situation $S(t)$ gave out at the output of the computer some solution $U(t)$ that would be technically acceptable, if there are feasible solutions, gave out the best solution in terms of some criterion of management. If you are given a choice of $U(t)$ to $S(t)$ single-valued and the process of selecting a developer known for, it remains only to program this process and to put it in the computer memory (Al-Khateeb, Johari, & Al-Khateeb, 2008).

The described approach requires that to the computer memory was added a table on the left side that lists all the valid $S(t)$ function object technology, and on the right - are the sets of solutions that are technologically acceptable for a given situation, and of which then need to select the best from the point of view control criterion F (Tyagi, Kalyanaraman, & Krishnapuram, 2012). But, unfortunately, for any real control object the size of this table will be astronomically high. We calculate, for example, the number of possible situations that may arise at the intersection. Apparently, for most real-world objects for which you want to build a control system, we have the inequality $|S(t)| \geq |U(t)|$.

Thus, the approach associated with the introduction of computer memory decision table, is ineffective. It is therefore necessary to look for a different approach to solving the problem (Tarnoff, Bullock, Young, & al., 2009). This other approach involves the introduction of computer memory of the two models: the object model, control and management decisions. Object model in the computer memory during calculation of the output values of the results obtained from the model of decision-making, should mimic the real behavior of the object, predicting the output values of the

object, resulting from exposure to the object of the control system. These predicted values of the outputs of the object, forming a vector $\langle \beta_1(t+1), \beta_2(t+1), \dots, \beta_m(t+1) \rangle$ fed to the decision-making model and also on the block correction. Correction unit compares the prediction derived from the model of the object with the real values of the output object, which will result in some control actions on the object of control (Joshi, Rajamani, Takayuki, Prathapaneni, & Subramaniam, 2013). Information about the mismatch of prediction and reality is transferred to the model of decision making. This information forms a vector $\langle w_1, w_2, \dots, w_h \rangle$. If necessary, decision-making model provides an adjustment of the object model.

2.2 Development of mathematical models used in ACS for transport

The flow can be considered to consist of any number of types of cars. In this model it is assumed that the entire stream of cars consists of three groups of speed, relevant passenger, medium and heavy freight trucks. The distribution of intervals out of cars on the road can be accepted under any law. In the model there are the following notations (Nikolaev, Aleksakhin, Kuznetsov, & Stroganov, 2003):

N_1 – traffic density in the direction AB; N_2 – traffic density in the direction of the BA; T – the duration of monitoring of movement of the flow of cars; m – the number of required calculations on the model; M – the number of counted realizations at a given moment of time; T_1 – the moment of transition of the entire system, which simulates the flow from one state to another; Δt_1 – a random time interval between successive moments of departure of cars from point A; Δt_2 – the same from point B; τ_1 – minimal time spent in the current state of the vehicle for guiding AB (e.g., time spent in a pack); τ_2 – the same for direction BA; n_1 – number of cars (buses) of the first speed, traveling the path AB for m implementations in both directions; n_2 – the same for the second cars speed group; n_3 – the same for third cars speed

group t_1 – the total time of movement of all n_1 cars of the first group t_2 – the same for all n_2 vehicles of the second group t_3 – the same for all n_3 vehicles of the third group.

The free speed of cars in each group are taken to depend only on the geometric elements of the road and the availability of funds and the organization of the movement can be determined by any method or calculated according to the experimental observations made in real-world driving conditions, taking into account the impact of signs and markings.

In modeling flow of cars is determined by the state at the time T_1 . In this case the ground state of flow of cars characterized by the number of cars on the road under consideration and the condition of each vehicle (moving in free conditions or in confined spaces.) For each vehicle and each of its states is calculated duration of its stay in this state.

Thus, if at any moment of time the flow of cars was in a ground state, then move it to another ground state requires that one of the cars moved to a new state (for example, overtook a column cars), or on the road drove a new car from the end points.

In view of the above simulation is performed as follows:

determine the coordinates of the geometric elements of the analyzed road and siting of traffic signs and markings in the light zone of their action;

depending on the intensity of motion take the distribution of intervals, that the cars come through on the road from the end-points;

using the model described above analyze and calculate the basic characteristics of the flow of vehicles;

receive results of the models that describe the conditions of the flow of cars on the road under consideration.

As a result, simulation can be obtained from the following data characterizing the conditions of the flow of cars on the road: the average duration of each type of car traffic, loss of time each type of vehicle as a result of movement of these vehicles in the stream, with an average speed of flow of vehicles and every type of cars.

Consider the relative frequency of zero and exponentially distributed intervals between successive cars. Since the ratio of the number of fast cars to the number of slow cars equal to p , then the probability that a randomly selected car is fast equal to $p/(1+p)$. Consequently, the probability interval is zero equal to $p/(1+p)$, and the probability of an exponentially distributed interval equal to $1/(1+p)$, and we can write the density distribution of intervals between successive cars both types

$$g(x) = \frac{p}{1+p} \delta(x) + \frac{\lambda e^{-\lambda x}}{1+p}. \quad (1)$$

Distribution of the number of cars can be found using the method of differential-difference equations, denoting $p_n(\tau)$ the probability that the interval of time τ will be regarded n automobiles. Since the probability of a lack of cars during the period of time $\Delta\tau$ equal to

$$(1-\lambda)\Delta\tau + o(\Delta\tau), \quad (2)$$

the likelihood of a vehicle during the time interval $\Delta\tau$ equal to

$$(1-\lambda)\lambda\Delta\tau + o(\Delta\tau), \quad (3)$$

the likelihood of two vehicles for a time $\Delta\tau$ equal to

$$p\Delta\tau + o(\Delta\tau), \quad (4)$$

probability of more than two cars during the time interval $\Delta\tau$ equal to

$$o(\Delta\tau), \quad (5)$$

you can easily get the equation

$$\frac{\partial p_n(\tau)}{\partial \tau} = -\lambda p_n(\tau) + \lambda(1-p)p_{n-1}(\tau) + p\lambda p_{n-2}(\tau), \quad n = 0, 1, \dots, \quad (6)$$

where $p_n(\tau) = 0$, if $n < 0$. Solving the system of equations (2-6) by successive substitutions, we obtain

$$p_n(\tau) = e^{-\lambda\tau} \sum_{i=N}^n \frac{p^{n-i} (1-p)^{2i-n} (\lambda\tau)^i}{(n-i)!(2i-n)!}, \quad (7)$$

where N – integral part of $\frac{1}{2}(n+1)$.

We assume that all vehicles traveling in a northerly direction, have the same speed U , except the only controlling car moving in a northerly direction

and having a free running speed $V > U$. Assume further that these cars have the same arrangement as in the queuing model with an independent (D, M) flow.

Queuing model with an independent traffic flow is constructed as follows: each interval is chosen by performing a Bernoulli experiment with the probabilities of outcomes p and q . If the experience a successful outcome, we selected the interval with density g_1 , in the case of a bad experience with the outcome of the selected interval of the density distribution g_2 . Cars, the density distribution of the intervals for which equal to g_1 regarded as forming one and the same place, and cars with the density distribution of the intervals g_2 are considered as forming a separate queue.

The most important case of the queuing model of an independent traffic flow is such that when the density function g_1 is deterministic, and function g_2 – purely random laws of $(D - process and deterministic \Delta - stochastic process)$. If M – the length of the car, and λ – the parameter of the Poisson distribution, the density distribution of intervals between successive cars of both types has the form

$$g(x) = p\delta(x-\Delta) + q\lambda e^{-\lambda(x-\Delta)}, \quad x \geq \Delta. \quad (8)$$

This model will be called the queuing system with an independent (D, M) traffic flow.

λ – flux density, ρ – intensity, and Δ – minimum distance between consecutive cars. The length of the queue has a geometric distribution, and therefore, the average queue length in terms of the number of vehicles is equal to

$$\mu = \frac{1}{1-\lambda\Delta}, \quad (9)$$

by distance –

$$\frac{\Delta}{1-\lambda\Delta}, \quad (10)$$

by time –

$$\frac{\Delta}{U(1-\lambda\Delta)}. \quad (11)$$

In addition, the average distance between the queues is equal to $\frac{1}{\lambda}$, that is, the average distance between consecutive cars. The distance between successive queues of different vehicles is not the distance between the queues; the first buffer is measured between the front car, and the second - from the front buffer to the next car back buffer. Therefore, they differ in magnitude Δ . In order the car control which a speed boost, equal to $V - U$, will be able to beat the queue and to overcome the distance between the bursts, it will take time

$$\frac{\Delta}{1 - \lambda\Delta} + \frac{1}{\lambda} \cdot \quad (12)$$

Thus ends the part of a typical cycle, when the control car has a free running speed. If W - the average waiting time (the time during which the rate is equal to U), and m - achieved average speed, we obtain

$$m = \frac{\lambda UW(V - U)(1 - \lambda\Delta) + V}{\lambda W(V - U)(1 - \lambda\Delta) + 1} \cdot \quad (13)$$

This expression is equal to V in the following special cases: $U = V$ (the car does not make overtaking) and $\lambda\Delta = 1$ (traffic jam).

In this case, the problem of finding m reduces to the problem of finding a definition W . However, before you perform these calculations, we put in the formula (13) values W obtained for the hypothesis of Carlson (repetition time, is equal to $\frac{kV}{X(V - X)}$) and the hypothesis of equal delay

(travel time is equal to $\frac{kV}{V - X}$). Since it is assumed that these expressions apply in the case of a simple overtaking, then before you make a substitution in the formula (13), multiply them by the average queue length.

For hypothesis of Carlson (Kerner & Rehborn, 1996) we have

$$W = \frac{kV}{U} \frac{1}{V - U} \frac{1}{1 - \lambda\Delta}, \quad (14)$$

where k - constant, meaning of which is not grasped intuitively, but it has the same dimension as Δ $\left(\frac{\text{distance}}{\text{number_of_cars(buses)}} \right)$.

The corresponding value m is equal to

$$m = UV \frac{1 + k\lambda}{U + k\lambda V}. \quad (15)$$

Formula (15) gives the results that make sense in certain limiting cases: if $V \rightarrow U$, then $m \rightarrow V$, if $V \rightarrow \infty$ then

$$m_{\max} = U \frac{\lambda k + 1}{\lambda k}. \quad (16)$$

However, if we stop the flow of North, setting $U = 0$, we find that the test car also stops, we get the result, which is absolutely not true. The reason for this situation is quite simple: these drawbacks inherent in the hypothesis of Carlson, and the expression (16) are independent of the southern stream. Consequently, it is unreasonable to expect that if U (and also λ) change, we obtain results that will make sense. Note that in fact when $\lambda = 0$ we get the correct value, and if $\lambda = \lambda_{\max} = 1/\Delta$ the correct value is not get.

The hypothesis of equal delay gives the expression

$$m = V \frac{1 + k\lambda U}{1 + k\lambda V}. \quad (17)$$

This result is very similar to the formula (17). In this case k has the same dimension as W , and when $U = 0$ we get a completely consistent value for m .

Let us find the average length of delay due to a simple pass. The same model with the parameters of the queuing λ' and U' will be used for the southern stream. It is easy to show that such a structure for controlling a vehicle provided with the time intervals, the density distribution which has the form

$$g(x) = p\delta(x - \sigma) + q\beta\lambda e^{-\beta(x - \sigma)} \quad (18)$$

with an appropriate choice of values p , q , σ and β . Since the flow of the southern approaches to the control vehicle with speed $V + U'$ and the average queue length of the southern stream of

cars is equal to $(1 - \lambda'\Delta)^{-1}$, respectively, the probability of large and small intervals between successive vehicles are

$$p = \lambda'\Delta \text{ and } q = 1 - \lambda'\Delta,$$

average length of small intervals

$$\sigma = \frac{\Delta}{V + U'}, \quad (19)$$

and the reciprocal of the mean length of big spacing,

$$\beta = \lambda'(V + U'). \quad (20)$$

Assuming the car to overtake, to perform the maneuver must have a distance equal to the length of the completed vehicle, we can eliminate the unknown constant and find the time required for passing:

$$T = \frac{\Delta}{V - U} > \sigma. \quad (21)$$

Distribution density given by (21) corresponds to the distribution function

$$G(x) = \begin{cases} 1 - qe^{-\beta(x-\sigma)}, & x > \sigma, \\ 0, & x < \sigma. \end{cases} \quad (22)$$

Mathematical expectation is

$$p\sigma + \frac{q}{\beta}(1 - \beta q).$$

The corresponding density function of the initial interval has the form

$$g_0(x) = \begin{cases} \frac{q\beta}{q + \sigma\beta e^{-\beta(x-\sigma)}}, & x > \sigma, \\ \frac{\beta}{q + \sigma\beta}, & x < \sigma. \end{cases} \quad (23)$$

The distribution function of the initial interval has the form

$$G_0(x) = \begin{cases} 1 - \frac{q\beta}{q + \sigma\beta e^{-\beta(x-\sigma)}}, & x > \sigma, \\ \frac{\beta x}{q + \sigma\beta}, & x < \sigma. \end{cases} \quad (24)$$

We find that in the case of a simple overtaking the average delay time is

$$\frac{\sigma^2\beta}{2} - \frac{1 + \beta T + p\beta\sigma}{\beta} + \frac{\exp\beta(T - \sigma)}{q\beta}. \quad (25)$$

We substitute the value of new permanent, we obtain

$$W = \frac{\exp\left[\Delta\lambda'\frac{U + U'}{V - U}\right]}{(1 - \lambda'\Delta)(1 - \lambda\Delta)\lambda'(V + U')} - \frac{(\Delta\lambda')^2(V - U) + 2(V - U + \Delta\lambda'V + \Delta\lambda'U')}{(1 - \lambda\Delta)(2\lambda')(V + U')(V - U)}. \quad (26)$$

We turn now to the more general case, which is characterized by a density of distribution of the velocity of free motion $f_0(x)$. In this case it is impossible to obtain an expression for W . The flux density of vehicles, following a rate X equal to $\rho/m(X)$.

The car, having a free running speed V , overtaking these cars with the average frequency

$$\rho(V, X) = \rho \frac{m(V) - m(X)}{m(x)}, \quad V > X. \quad (27)$$

The function $\alpha(V)$ ($\alpha(V)$ – proportion of time during which the car has a free running speed V , is the head) can be expressed in terms of function $\rho(V, X)$ by the relation

$$1 - \alpha(V) = \int_0^V \rho(V, x) W f_0(x) dx, \quad (28)$$

where W – function of average waiting time (the time during which the rate is U), it has one or more arguments, depending on where we are forced to make an assumption about the time sequence. Similarly, the expression for the quantity $s(V)$ ($s(V)$ – the average distance traveled per unit of time driving, having a free running speed, as a slave) can be written as

$$s(V) = \int_0^V \rho(V, x) x W f_0(x) dx. \quad (29)$$

Considering formulas (15) - (17) together with the formula

$$m(V) = V\alpha(V) + s(V),$$

we obtain an integral equation for $m(V)$:

$$m(V) = V - \int_0^V (V - x) \rho(V, x) W f_0(x) dx. \quad (30)$$

In the DELPHI programming environment we created a complex of problem-oriented software for modeling of intelligent traffic management system (ITMS).

3 IMPLEMENTATION OF THE MODEL

Program system “Automatic bus Controller systems” is developed in visual design environment Delphi, fig. 2. Object-oriented programming and visual design allow creating excellent applications for different purposes (Lakhno & Pilipenko, 2007).

The main features of software owned by the possibility of calculating the operational control tower operator changes the timetable of mobile

units to reflect the changes of the velocity parameters of each of the high-speed units.

The system “Automatic bus Controller systems”, designed for client-server platform. So before you start working with the program, you must specify the server address on which the system is installed. Later in this guide assumes that the system is installed at localhost, which means on the computer on which you are directly working with. The information system „Automatic bus Controller systems“ used during the period from 2010 to 2012.

Implementation of the results of research, greatly improving the quality of transport services in the cities of Lugansk region. The economic impact exceeded \$ 20,000 per month, labor productivity increased by 12.1%.

The results obtained in the studies are shown in Fig. 3.

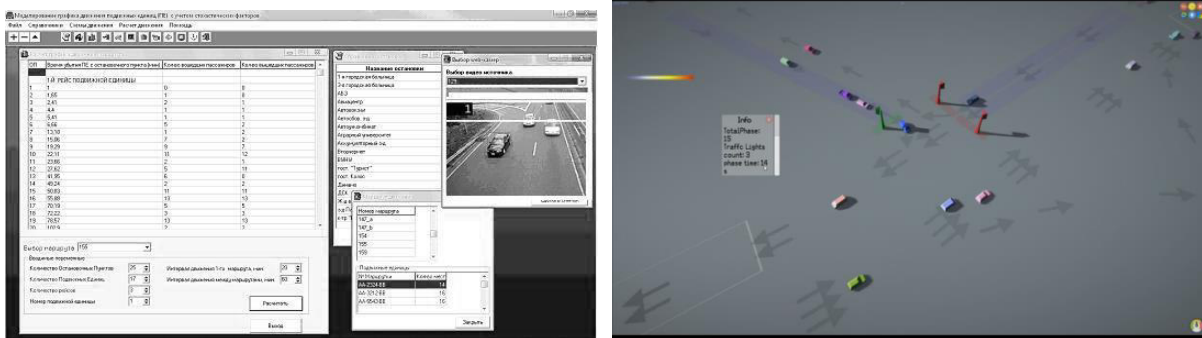


Fig. 2 Program system “Automatic bus Controller systems” (Lahno V., Pilipenko A.,2011)

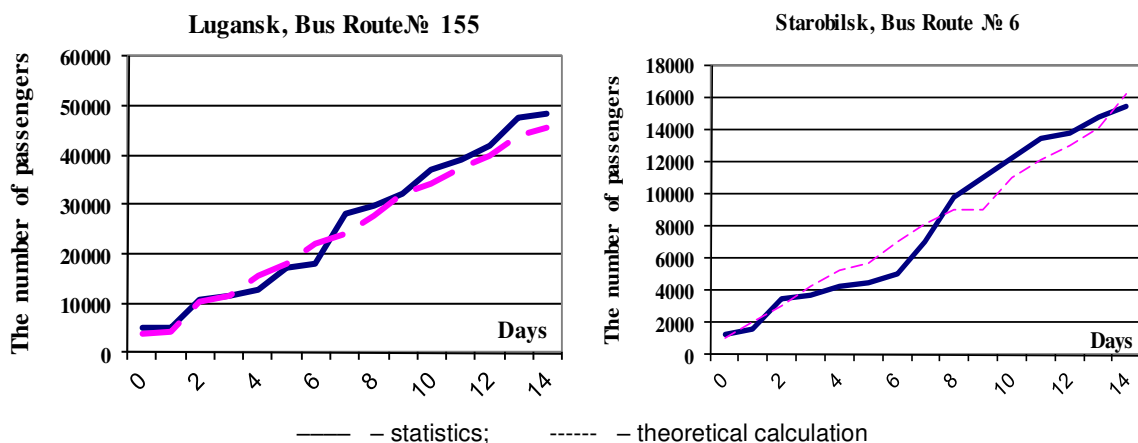


Fig. 3 The results of the study

The system “Automatic bus Controller systems” consists of separate windows, each of which is intended to carry out its functional tasks - viewing and editing the contents of the database, calculate the interval of motion of moving units, etc.

4 CONCLUSIONS

During the last years developers of automated information systems in transport is increasingly have to solve problems of designing control

system of so complex nature that it became simply impossible to use for design purposes old experienced methods.

The article describes some of the features of modeling of traffic flows using the stochastic

simulation. The basic computational function, and describes a computer program for managing passenger transport, which is implemented, this mathematical model.

5 WORKS CITED

- Al-Khateeb, K. A., Johari, J. A., & Al-Khateeb, W. F. (2008). Dynamic Traffic Light Sequence Algorithm Using RFID. *Journal of Computer Science*, 4(7), 517-524. doi:10.3844/jcssp.2008.517.524
- Closs, D. J., Davidson, J., Dawe, R. L., Templeton, S., & Levitt, K. (2007). The role of IT in logistics. *The Official Magazine of the Logistics Institute*, 27(6).
- Joshi, V., Rajamani, N., Takayuki, K., Prathapaneni, N., & Subramaniam, L. (2013). Information Fusion Based Learning for Frugal Traffic State Sensing. *IJCAI '13 Proceedings of the Twenty-Third International Joint Conference on Artificial Intelligence* (pp. 2826-2835). AAAI Press.
- Kerner, B., & Rehborn, H. (1996, May). Experimental properties of complexity in traffic flow. *Physical Review E*, 53(5), R4275-R4278. doi:10.1103/PhysRevE.53.R4275
- Lakhno, V., & Pilipenko, A. (2007). *Povysheniye effektivnosti sistem upravleniya avtomobil'nym passazhirskim transportom metodami stokhasticheskogo modelirovaniya*. Lugans'k: Elton-2.
- Mikulski, J. (2011). Modern Transport Telematics. *11th International Conference on Transport Systems Telematics, TST 2011* (p. 418). Katowice-Ustron, Poland: Springer.
- Mohan, P., Padmanabhan, V. N., & Ramjee, R. (2008). Nericell: Rich monitoring of road and traffic conditions using mobile smartphones. *Proceedings of the 6th ACM conference on Embedded network sensor systems*. ACM. (pp. 323-336). New York, NY, USA: ACM. doi:10.1145/1460412.1460444
- Nikolaev, A., Aleksakhin, S., Kuznetsov, I., & Stroganov, V. (2003). *Avtomatizirovannyye sistemy obrabotki informatsii i upravleniya na avtomobil'nom transporte*. Moscow: Izdatel'skiy tsentr "Akademiya".
- OECD. (2002). *Transport Logistics. Shared solution to common challenges*. Paris: OECD.
- Smulders, S. (1989). *Control of Freeway Traffic Flow*. PhD thesis. Enschede, Netherlands: University of Twente.
- Tarnoff, P. J., Bullock, D. M., Young, S. E., & al., e. (2009). Continuing Evolution of Travel Time Data Information Collection and Processing. *2009 TRB 88th Annual Meeting: Conference Recording* (pp. Paper 09-2030). Washington: TRB.
- Transportation & Logistics 2030 Volume 4: Securing the supply chain*. (2012). pwc. Retrieved from http://www.pwc.com/gx/en/transportation-logistics/pdf/tl2030_vol.4_web.pdf
- Tyagi, V., Kalyanaraman, S., & Krishnapuram, R. (2012). Vehicular Traffic Density State Estimation Based on Cumulative Road Acoustics. *IEEE Transactions on Intelligent Transportation Systems*, 1156-1166. doi:10.1109/TITS.2012.2190509
- Xiao-feng, C., Zhong-ke, S., & Kai, Z. (2003). Research on an intelligent traffic signal controller. *Intelligent Transportation Systems* (pp. 884-887). IEEE. doi:10.1109/ITSC.2003.1252076

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CONSEQUENCE OF THE FLASH FLOOD IN THE MALA FATRA MOUNTAINS

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Abstract

In 2014 a massive landslide due to extreme rainfall in the Mala Fatra mountains occurred. It caused also consequential damages that indicate typical symptoms of "domino effect" due to extreme weather event. A torrential downpour resulted in flooding that caused an avalanche of rocks, mud, wood and other material which buried parts of Vrátna Dolina and engulfed a lift station to Snilovské Sedlo. Dozens of cars were destroyed as was a road leading from Terchová village to Vrátna Dolina. Vrátna Cottage, road infrastructure and a part of Terchová village were damaged as well. About 200 people present at the area of the natural disaster managed to shelter in nearby buildings and nobody was hurt or killed. Vrátna Dolina resort has a lot to clean up after the disaster. Flood cleanup bill is estimated at tens of millions Euros. Unfortunately, more landslides could follow in the future. The clean-up operations were realized by the integrated rescue system bodies, civil protection, fire and rescue services, municipalities, local governments and other organizations.

Keywords: *Landslide, flash flood, emergency situation, crisis management*

1 INTRODUCTION

Nature is more powerful than man. Only a few of us are aware of this truth when enforcing their activities that require entrance into the natural environment and interventions into it. Nature does

not matter whether our interventions are motivated by exploring nature, sport activities or our drive for profit. Underestimation of natural hazards and their impacts on human activities lead almost always, sooner or later, to a lesser or greater extent, into incidents caused by the activation of the aforementioned risks. Extreme rain or snowfall, storms, landslides, floods and flash floods and earthquakes repeatedly show us how pointless our interventions in nature are and how

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we do underestimate the natural influences. Often we not even learn from the historical natural disasters. (Dvorak 2010)

2 CENT-YEAR'S FLOOD IN THE VALLEY VRÁTNA DOLINA AND ITS CONSEQUENCES

The Valley Vrátna dolina is one of the most beautiful parts of Mala Fatra mountains and the whole Slovakia. Annually thousands of tourists, skiers, drivers and other visitors visit the valley.

The valley is only accessible to motorists through rocky gorges Tiesňavy, where the narrowest point is only less than ten meters in width there. Further above the valley widely branches off up to the main ridge of the Mala Fatra, which is surrounded by the upper basin of the river flow Varínka. In the valley, there are plenty of mountain transport systems and extensive hiking and skiing infrastructure. At the end of the valley there is a cottage Vrátna and a passenger ropeway up to Snilovské sedlo. The village Terchová spreads just below the gorges Tiesňavy (Fig. 1).

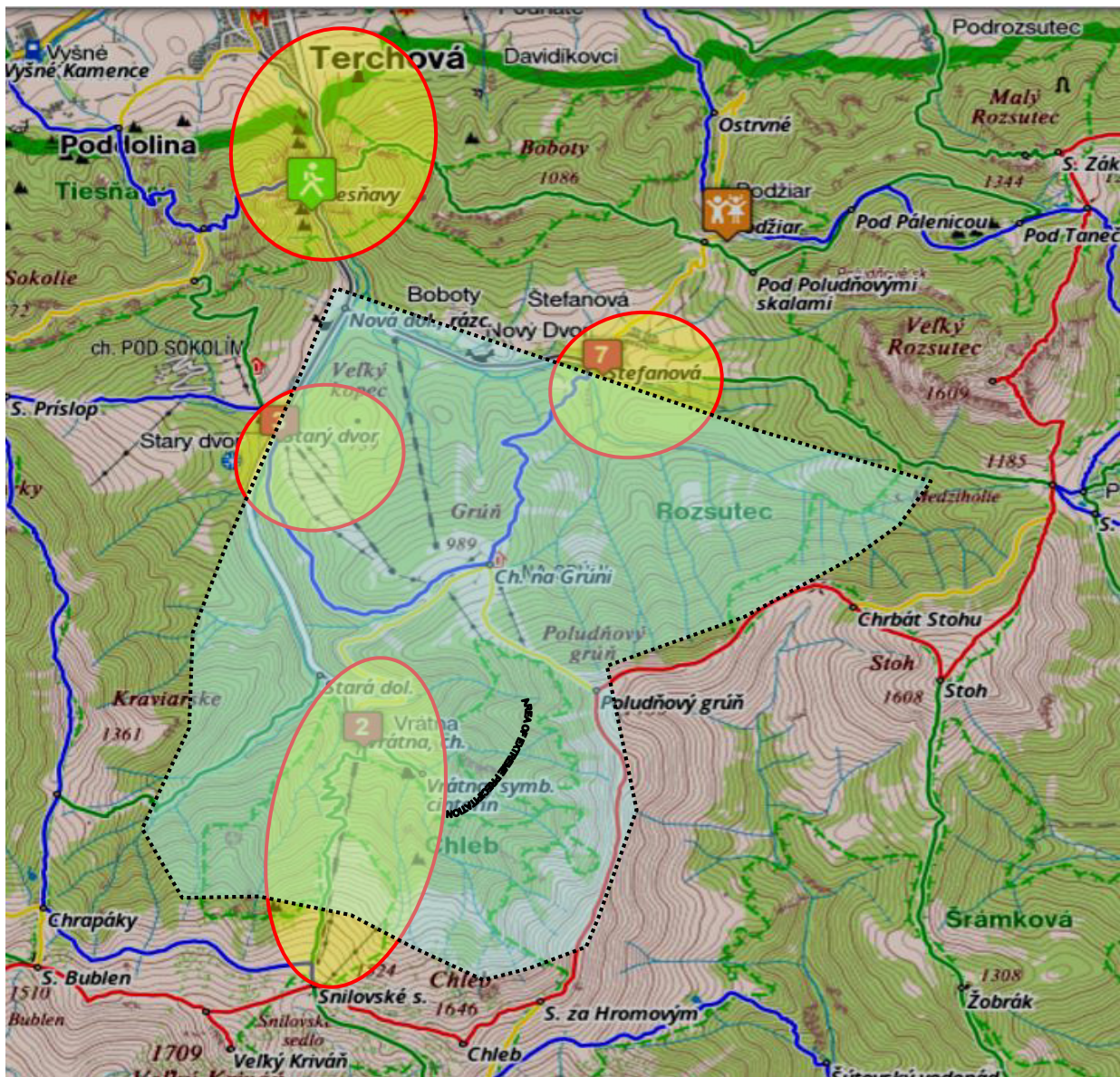


Fig. 1 Geography, topography and location of the natural disaster in the valley Vrátna dolina on July, 21, 2014

In the valley Vrátna dolina heavy snow and rainfall occur regularly. The extreme situation occurred for example on June, 11, 1848 when during millennial floods fourteen residents in the village lost their lives and the water level reached Tiesňavy level that is shown in a symbolic chapel in the rock above the river Varínka.

Meteorological and hydrological conditions in daylight hours on July, 21, 2014 apparently did not reach the values from that millennial flood, but the consequences of both were almost similar with catastrophic results. They were characterized by converging currents and high air humidity and unstable stratification of the atmosphere.

As a result, in the afternoon above western Slovakia a strong and well-developed line of intensive and relatively slow-moving storms from west to east with some deviations towards south or north was created. These storms arose mainly over the massifs of Mala Fatra and continued moving further east (web geology 2014).

At three o'clock p. m. there was a very severe storm accompanied by strong winds in the town of Žilina as well. It took approximately 30 minutes and reached an intensity of more than 80 mm / h (web SHMU 2014).

Around 3.15 p. m. the first storm in Kriváň part of Mala Fatra developed and just after 4 p. m. it was followed a second storm, whereas the intensity of rain gradually increased and its value exceeded 50 mm / h. In the first wave of rainfall (between 3.15 and 3.55 p. m.) about 40 mm dropped, in the second wave (between 3.55 and 4.55 p. m.), about 50 mm of precipitation, which means in 1 hour 40 minutes about 90 mm. It is not excluded that in the hills surrounding the valley Vrátna dolina during the storm more than 90 mm of rain fell (web SHMU 2014).

According to a survey of the working group of the State Geological Institute of Dionýz Štúr the worst situation was created in fan-shaped glacier peaks Chleb, Steny and Hromové whose erosion-formed valleys converge above the cottage Vrátna with the base terminal of the lift.

At the height of 1500 - 1600 meters above sea level moraine sediments and stone rubble were floated and they together with the vegetation formed rocky



and muddy streams - "mury" - of a thickness of 1-2 meters. Landslides were conditioned by the favourable inclination of the bedrock together with the wetted plant cover. As a result, many relatively small "plates" of slide material broke (each of which reached the size of several 100 m²) and moved particularly through avalanche gutters at the rate of 10 to 20 m / sec (web geology 2014).

Approximately 800 meters above the cottage Vrátna individual flows "mury" started to meet. The stream continued through a narrow valley, and took with itself other bottom sediments that had been accumulated there in the previous period and other small streams from side valleys were affixing it up to the point when a mixture of rocks, mud and trees reached thickness of about 2 meters. Most streams eroded valleys down to bedrock (web geology 2014).

At a distance of about 560 meters far from the lift station two main streams combined (funnel connection of valleys). In these parts of the territory stone collapses such as rock fragments and blocks falling down were likely to occur. The overall cubage of the conveyed material was estimated by a working group of the Geological Institute at least 100 000 m³.

The front part of rocky and muddy stream flow reached the cottage Vrátna with the base station of the lift, in which, although there was extensive material damage, there was no serious damage to buildings and static lift columns. According to the testimony of those present the rocky flash flood was stacked gradually, so it did not come to a single impact of the front part of the stream directly into the building with the lift – otherwise there would undoubtedly have come to a total destruction of buildings and other infrastructure there.

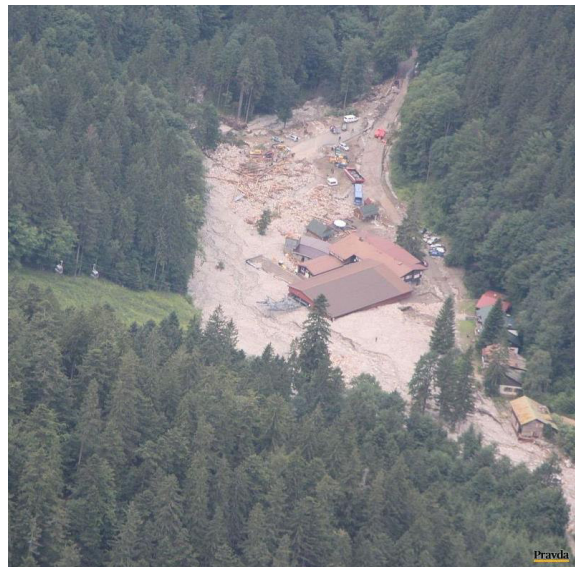




Fig. 2 Photos of landslides effects

Source: Youtube

Fortunately, it seems that the body of the streams due to its morphology (wedge-shaped extension, uneven surface flow) had the potential to absorb, or dampen any further remaining rocky – muddy streams (web geology 2014).

The stream flow broke into the cottage and the building with cable cars and totally devastated the interior up to the second floor. In the cottage at that time, there were approximately sixty people, including children, in there who managed to escape to the upper floors. In case of a total destruction of the buildings in the area their chances would have been unpredictable.

Further stream course was incredibly devastating. On the terrain breakage under the cottage it gained speed, swept away vehicles from the parking lots, destroyed and took with itself an asphalt road in the length of several kilometres, whereas in wider areas it stored drifting natural material, vehicles, cottage furnishings. Just having observed the position of those damaged vehicles one can estimate the stream's height and strength. See pictures from (Youtube 2014 A, Youtube 2014 B, & Youtube 2014 C)

The stream gradually took on additional side streams, destroyed a part of the ski resort

infrastructure in the local part called Starý dvor and then it reached the part Tiesňavy. In the narrowest part the stream reached the height of about five metres, it washed the original rock bed by about one metre and scoured the only access road in length of about two-hundred metres as well. In some places it also demolished retaining walls. After its intrusion to the village Terchová it spilled over and flooded the village land, basements and some houses as well. The mainstream stayed in the original, modified riverbed and demolished several local bridges and partially destroyed stone trough lining.

Paradoxically, in the neighbouring valley with the local district Štefanová (under Veľký Rozsutec), remote 2 kilometres far from the cottage Vrátna, there was only a little damage and what is more in the famous tourist resort called "Diery", 1 km away, the local brook level was only slightly increased there.

To deal with a natural disaster the mayor of Terchová announced "emergency situations" and activated all the available material means and resources of local businesses. Components of Fire Department (HZZ), Mountain Rescue (HZS), Military forces of the Slovak Republic (SR OS) and other entities also participated in rescue operations on-site. The total damage amounted to 10 million euros. Consequential damages that arose and still arise to operators of tourist facilities and secondarily to the village/region itself, cannot yet be quantified. The government provided one-time financial assistance to the municipality and the Self Governing Region Žilina for elimination of negative consequences in a total value of 3.6 million euros. In the direct connection with the natural disaster no loss of life occurred.

3 LESSONS AND RECOMMENDATIONS OF THE GEOLOGISTS

– Disastrous rocky and muddy avalanche that originated on July 21, 2014 represents in terms of socio-economic significance (Safarik, 2015) R4 category - very high risk (including expected losses of victims and injuries, serious damage to buildings and infrastructure, the destruction of the existing

state of the environment and socio-economic activities).

- Decisive conditions for the creation of catastrophic flash flood in the area there were favourable geological and geomorphological conditions (presence of marl in the jointing area with layers / schistosity in conformity with the slope, a large catchment area converging into the funnel above the lower lift station). For immediate launcher we consider extreme rainfall.
- An important finding is the fact that the slopes in their upper parts (jointing area) of the mountains Mala Fatra are saturated and loosen – in case of extreme rainfall the situation could repeat.
- It is recommended to update the geological map at a scale 1:10,000 in the area of interest. Such a map is essential for drawing up maps of hazard.
- Due to the difficulty of the terrain and partially impassable ground it is recommended to perform air photogrammetry or aerial laser scanning in the affected area.

Lessons for further human (anthropogenic) activities and crisis management:

- The natural disaster could not have been prevented; it did not originate in direct relation to human activities. Only remotely it is possible to seek some connections with the global warming and increase of the intensity of meteorological and hydrological phenomena.
- In order to identify similar phenomena, it is inevitable to carry out a risk analysis based on expertise (in this case, meteorological, hydrological and geological assessments). In case of an identified potential of natural disasters and their consequences, no-one would consider any construction activity in that area.
- Do not allow construction in areas where there is high probability of similar disasters. Utilize the power of insurance companies, which would announce the impossibility of property insurance in vulnerable locations.
- Due to the fact that there are hundreds of similar risky areas in Slovakia, it would be necessary to carry out their new risk analysis and take effective preventive measures to

reduce the potential consequences of similar disasters.

- Strengthen the role of crisis management in the building proceeding with the task to highlight the risks associated with the implementation and operation of buildings.
- Strengthen educational process of the management staff in the areas of risk analysis and identification of potential emergencies and crisis events at all levels of government bodies.
- Develop detailed risk maps and computer programs to simulate the course of similar natural disasters and their consequences.
- Create rescue units of the Integrated Rescue System (IZS) and equip them with the technology in relation to potential

emergencies and crisis phenomena in their areas of competence.

4 CONCLUSION

The above described natural disaster and its consequences are a great lesson and a memento to human activities and the construction of transport, tourist and industrial infrastructure, not only in the area of Mala Fatra, but the whole Slovakia as well. Only a detailed and specific risk analysis may serve to argue about the inappropriateness of placing buildings in areas of risk, or the implementation of preventive measures in existing buildings. They can also serve to argue the necessity of creating professional rescue teams and their equipment.

WORKS CITED

Dvořák, Z., Leitner, B., Sventeková, E. Soušek, R. (2010): Risk management in railway transport, 1st edition Pardubice: Institut Jana Pernera, 283 s. ISBN 978-80-86530-71-0

Šafařík, Z., Vičar, D., Losek, V., Rak, J., Trojan, J (2015):. Management of Population Protection against Floods. International Business Information Management Conference (25th IBIMA) on 7 - 8 May 2015 in Amsterdam, Netherlands. ISBN: 978-0-9860419-4-5.

Web SHMU, 2014 <http://www.shmu.sk/sk/?page=2049&id=542>.

Web geology 2014 http://www.geology.sk/new/sites/default/files/media/Aktuality/Vratna_dolina_2014/Vratna_informat%C3%ADvna_sprava_web.pdf.

Youtube 2014 A <https://www.youtube.com/watch?v=DNEpBLxvs4o&list=PLxRUrlSre5nGduQw7Rg9TRDOxxME6m580&index=4>.

Youtube 2014 B <https://www.youtube.com/watch?v=0kEZMrWfhTI&index=8&list=PLxRUrlSre5nGduQw7Rg9TRDOxxME6m580>.

Youtube 2014 C <https://www.youtube.com/watch?v=AbdVyZ2pe2Y&list=PLxRUrlSre5nGduQw7Rg9TRDOxxME6m580&index=15>.

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CULTURE AND TRADITION OF WINE DRINKING IN POLAND IN THE HALF OF THE SIXTEENTH CENTURY

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Abstract

The paper fits in the area of anthropological research on everyday life from a historical perspective. The paper concerns the habits of wine consumption in the Polish lands in the sixteenth century and the range of its uses. The materials used in researching the project included Polish narrative sources – herbaria and chronicles, as well as accounts of foreigners who visited Poland in the studied period. As an imported beverage, wine was expensive and thus treated as a luxury drink. It was drunk mostly by people of high social and material status. The practice of serving wine, instead of locally produced beer, was often criticised by contemporary moralist writers. Wine was associated with foreign cultural influences, and seen as a departure from the traditional beer. In the Polish lands in the sixteenth century, wine was used as a drink, medicine and cooking ingredient. Wine was imported from southern Europe, mostly Hungary, Moravia, Austria, Macedonia, Istria, Italy and Greece. French, Spanish and Rhenish wines were less popular. Sweet wines dominated among the imports. As Poles weren't familiar with the sophisticated taste of premium wines, merchants sometimes adulterated wine by adding various ingredients. Despite vociferous opposition to wine drinking from those who supported traditional Polish ways of drinking, eating, clothing and culture in general, wine gained more and more consumers and its sales steadily grew.

Keywords: wine, culture, culinary habits, Poland, sixteenth century

1 INTRODUCTION

Wine is rightly associated with southern European countries. In those areas, a climate supportive of viticulture led to a development of a habit of daily wine drinking. Things looked differently in Poland, where the geographical location, weather

conditions and other factors determined the scale of wine consumption. Although the tradition of drinking wine in Poland goes back to the Middle Ages, when vineyards were established and wine produced in the southern parts of the country, wine growing ceased due to climate changes and the onset of the so-called Little Ice Age in the middle of the sixteenth century. Because of the disappearance of vineyards from the Polish lands, and as a result of the collapse of the internal market, it became necessary to import wines from abroad (Dias-Lewandowska, 2014 pp. 22-24).

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2 RESEARCH PROBLEMS AND SOURCES

The subject of my analysis is the place of wine among other drinks consumed during the Polish Renaissance, during the reign of the last two rulers of the Jagiellonian dynasty: Sigismund I (1506-1548) and Sigismund Augustus (1548-1572). I will try to show in which social groups wine was appreciated, at which occasions it appeared on the tables, where it was brought from, what types were popular at the time. An important part of my study will focus on determining what the moralists thought about drinking wine, and what arguments they used to support their opinions. A significant aspect of the analysis will focus on determining the health consequences of wine consumption. The source materials will include Polish narrative sources – herbaria and chronicles, as well as accounts of foreigners who visited Poland and spoke about the culinary traditions and the specific features of our country.

3 DRINKS CONSUMED IN THE POLISH LANDS IN THE SIXTEENTH CENTURY

The most common and the most frequently consumed beverage in Poland was beer – it was made into soup with breadcrumbs, and added to boiled and stewed dishes. Beer was given to women during pregnancy and after childbirth for strength and sustenance, it was also used to feed children who were no longer breastfed. It served as a daily drink with meals, and as a festive beverage offered to guests at banquets and feasts. The gentry (*szlachta*) produced beer themselves at their manor farms, while urban residents bought beer produced in local breweries, of which there were many, and which met the demand for this drink. The belief in health-giving properties of beer meant that it was also used as a medicine, added to enemas and baths.

Another alcoholic beverage, highly regarded among the gentry, was mead (Kromer, 1984, p. 68). Because of the well-developed tradition of bee-keeping in Poland, it was also home-made at the farms. Because of medicinal properties attributed to mead, and bees themselves being bestowed with special esteem, mead was considered to be a noble beverage. It wasn't drunk every day, but only graced the tables during

important celebrations. It was more expensive to produce than beer, and its availability was relatively limited.

In this period, obviously, vodka was already known. Its production was becoming increasingly common among the Polish gentry. However, it wasn't until the next century that this particular beverage began to be strongly associated with the Polish cultural landscape. The knowledge of *aqua vitae* distillation was popularised by the authors of Renaissance herbaria, who published recipes for distilling high-proof alcohol. As the process was not particularly difficult, distillation apparatus started to appear more and more commonly at manor farms. However, in the sixteenth and the early seventeenth century, there was sometimes no distinction made between spirits and wine, and vodka was called *vinum crematum* i.e. considered to be a type of wine (Potanski, 1950, pp. 17-25; Kuchowicz, 1971, pp. 667-673).

4 CONSUMERS OF WINE AND ITS PRICE

How was wine consumed in the Polish lands? A certain pattern can be observed here regarding social groups in which wine dominated on the tables, and the ones satisfied by homely beer. The main recipient of wine in the sixteenth century was the royal court. Wine was also used during celebration of the Mass, hence the regular orders from the church circles. The members of the higher clergy, often educated at Italian universities and familiar with the customs prevailing in other countries, were particularly fond of wine. It was also consumed by wealthy townspeople. But for the gentry and the richer peasants, for whom beer was the main drink, wine was a special occasion only drink. There were several reasons for this.

The costs of importing wine determined its price, which was high and significantly higher than the price of beer produced in local breweries. As it's known from documentary sources, in Krakow, then the capital of the Polish state, a garniec of beer cost 1 grosz in 1567. Krakow garniec (in Latin *olla hydra, congius*) was a unit of measure. It was equal to about 3,2-3,3 litres. Meanwhile, a garniec of wine cost 14.5 grosz, while as much as 24 grosz was demanded for a garniec of premium (Muscat or Malvasia) wine (Pelc, 1935, pp. 29, 40-41). It should be noted that system of measurement of

liquids was different for wine and beer. (Szymanski, 2001) Realising the comparative relationship between wine prices relative to beer prices makes it easy to understand why consumers of wine originated almost exclusively from among the well-off people.

Wine became a symbol of one's financial status. Serving wine during feasts - instead of cheaper beer – emphasised the financial position of the host. The cultural significance of wine could be seen when drinking it became forbidden for townspeople. Sumptuary laws clearly define on what occasions and in what quantities townspeople could consume this expensive beverage. The main goal of such regulations was to restrict access to wine for this particular social group (Estreicher, 1898, pp. 121-125).

As the sixteenth century was the period of growth of the Polish economy, the population of the Polish Crown lands grew wealthier. This in turn translated into a growing demand for imported foreign wines. Despite the high price which traders demanded, the number of consumers significantly increased and this upward trend continued in the next century (Starowolski 1859, p. 51).

5 CIRCUMSTANCES OF WINE CONSUMPTION

It is difficult to conclusively assess how much wine was consumed in the Polish lands during this period. Documentary sources do not give a full view of this matter, while it is difficult to find a precise answer to this question in the narrative sources. It is known that poorer people bought wine only to celebrate important family events such as a wedding or a christening. However, among the wealthier, wine appeared on tables without a special occasion. The profligate served this expensive drink during feasts they organised or bought it at the inn, at an even greater expense. The clergy, and especially the Church hierarchy, drank wine, not only during the religious rites, but also with their everyday meals.

But overall, there was certainly much less wine drunk in Poland than in the countries of southern Europe. According to the Italian papal nuncio, who visited Poland in 1565, Poles drank little wine (Ruggieri, 1864, p. 131). Due to its high price, wine

was treated as a luxury drink and wasn't indulged in very often.

6 WINE AS MEDICINE

Wine drunk in the Polish lands was used not only as a drink served during sumptuous feasts. It is worth noting that it was added as a component of medicinal products, and pharmacies had the privilege of selling wine. Wine was regarded in some circles as medicine, although opinions here were divided. The authors of Renaissance herbariums believed that it could serve as an aphrodisiac. Preparations which included wine among their ingredients were considered beneficial in the treatment of infertility. Wine itself, drunk before labour, had relaxant properties, so it not only accelerated labour and delivery, but also acted as an analgesic. Wine, which, after all, stimulated digestion, was recommended for gastrointestinal problems. Wine in conjunction with cloves and bay leaf was even thought to create a protective barrier against infection with plague (Anonymous, 1899, p. 10). Already at that time there was an awareness that epidemics could spread as a result of drinking dirty water. Therefore, wine or beer seemed to offer a healthier alternative.

It can be assumed that the work of the fourteenth century Italian author Pietro de' Crescenzi (Krescentyn) contributed to the increasing popularity of wine in the Polish lands. In *Ruralia commoda...* which has been translated into Polish in 1549, book V was devoted to viticulture, wine production and its use in everyday life. Many indications for therapeutic applications of wine have been included here. Crescenzi recommended wine as a medicine to improve the health of the whole organism. It was supposed to purify the blood and help its circulation, leading to warming of limbs. Thanks to these properties he considered it suitable for drinking by the elderly who had problems with proper blood flow. According to de' Crescenzi, wine should be drunk by everybody who lived in areas with unfavourable climates. He also recommended wine drinking to young people, as it regulated the amount of humours in the body. According to de' Crescenzi, wine was beneficial to the digestive system, especially liver and stomach. He also noticed a positive effect of wine on the mental sphere. Wine

not only improved mood and induced well-being, but also contributed greatly to stimulating the body to more efficient thinking (Krescentyn, 1549 ff. 365-370). Undoubtedly, his opinions about wine contained in the book contributed to the change of beliefs about this drink.

In Poland, not all authors of source materials from the sixteenth century spoke about health benefits resulting from consumption of wine. A particular harm was attributed to drinking wine by children. It was thought to contribute to the development of childhood diseases and to slow down the normal physical development. Children who have been fed wine were thought to be small in stature, with an appearance of a "starved hen" (Rej, 2003, Bk. I, Ch. III, 2, p. 35). A different attitude to the issue of wine consumption by minors than one presented by people living in the countries of southern Europe can be clearly seen here. Sebastian Petrycy of Pilzno knowingly argued that children are fed with wine only in those parts of Europe where there is no access to beer, the latter being far better and healthier in his opinion. He also argued that serving wine to children may in the future lead to alcohol dependence. What's interesting, he did not have such reservations regarding beer, which according to him, could be drunk by minors with impunity (Petrycy z Pilzna, 1956, p. 28, 31). Proponents of beer and some authors of herbaria and guides claimed that drinking beer from the earliest years of life made for thriving children of stocky build who are as physically fit as bison (Syrenski, 1613 Bk. IV, f. 948).

There were also more balanced opinions about serving wine to children. The anonymous author of a medical handbook advised giving children small amounts of wine to improve their mood (Anonymous, 1899, p. 10). There was thus no suggestion of dangers in serving wine to children, which is explained by the lack of awareness about the risks resulting from the consumption of alcoholic beverages in the early years of life. Notes on the merits of serving wine to children appeared also in the work on children by Marcin Kwiatkowski, a translation of *De ingenuis moribus...* by the Italian author Pietro Paolo Vergerio, who lived at the turn of the fourteenth and fifteenth centuries. Although it had to be diluted with water, as was the custom of the

Italians, and served in small quantities, but the writer did not deny the need for giving wine to children. In fact, he believed that wine helped children to digest food and it should be given to them precisely for this purpose. He opposed giving wine to children instead of other drinks (Kwiatkowski, 1889, p. 26). Here, then, the main focus was on the health aspect.

It should be noted that the sixteenth-century writers mostly were not aware that alcohol contained in wine was harmful, especially to children, contributing to the deterioration of their psycho-physical development. Although Mikolaj Rej warned against giving children wine in large quantities and often, but he advised feeding children beer based soups. He did believe, however, that wine weakened the stomach and made one used to delicate dishes. But instead of wine he recommended beer (Rej, Vol. 1, 2003, Bk. I, Ch. III, 2, p. 35). A similar view was expressed by Maciej Wirzbieta (Wirzbieta, 1989, p. 76).

Wine – according to some contemporary Polish moralists - also harmed adults, in whom it led to the so-called inflammation of the body. It had a particularly adverse effect on those with a choleric temperament who, in accordance with the principles of the theory of humours had an excess of yellow bile in the body. On the other hand, those with a sanguine temperament, dominated by blood, could improve their mood by drinking wine (Rej, Vol. 1, 2003, Vol. 1, Bk. II, Ch. VI, 3, p. 224). Even then the effect of drinking wine on the personality of the drinker was observed. Although taking a small amount of wine was thought to contribute to improved mood and well-being, drink to excess, it led to excessive eloquence, overconfidence in decision-making and behaviour (Padrewski, 2003, p. 178; Zbylitowski & Zbylitowic, 1605, p. 27). It was also pointed out that after ingesting wine women became bolder and more talkative, which wasn't to the liking of all contemporary men (Rej, 1971, Ch.4, Letter 40v, p. 205).

As wine had a higher alcohol content than beer, it led to faster intoxication. This is why wine, and not beer, was blamed by the sixteenth-century writers for drunkenness, although they obviously were aware of the fact that drinking large amounts of low-proof alcohol could lead to the same consequences (Wink, 1881, p. 21).

Wine for medicinal purposes was recommended both internally and externally. It was administered on its own or with the addition of spices or herbs. It was also used for poultices or for rinsing the affected areas of the body. Wine was also added to the contemporary cosmetics, due to a belief in its beneficial effects on the skin.

7 WINE AS AN INGREDIENT AND SEASONING FOR FOOD

Sometimes sources mentioned adding wine directly to the food at the preparation stage. It was not a common practice in the described period. The high price of wine definitely discouraged such experiments. Only very wealthy people engaged in such practices. However, they met with disapproval of contemporary moralist writers. Adding wine to stuffing mixtures used to fill in dishes formed in the shape of animals was particularly criticised. Luxury, profligacy, unnecessary extravagance - that's how these attempts at creating very fanciful dishes, both in terms of shape and taste, were judged (Rej, 1971, Ch.2, Letter 14v, p. 101). From another source it is known that wine could be an ingredient of gravy. It also contained seasonings, such as salt, garlic, parsley and, expensive at the time, black pepper (Anonymous, 1899, p. 11). The sources from Gdansk, a wealthy port city, have mentions of adding wine to fish and meat dishes (Klonder, 1989, pp. 119-122).

However, wine didn't feature heavily in the Polish culinary tradition of the period. Even a hundred years later, at the end of the seventeenth century, a cookbook written for a family of the nobility contained a note stating that although you could add wine to food, it would not have a major impact on its taste. Traditionally, seasoning of food with vinegar was much more common (Czerniecki, 2010, p. 104). However, the aforementioned cookbook also contains recipes for sophisticated dishes (e.g. European Bison loin and Royal-style salmon), for which the chef recommended seasoning with both wine and vinegar, as well as sugar, black pepper and raisins. In this way, a blend of flavours was created, which was intended to be associated with a lavish meal for the most demanding gourmets. The author also suggested adding wine to meat and fish dishes, sauces, mustard, as well as desserts made with almonds

(Czerniecki, 2010, pp. 105-106, 128, 133, 135). It can therefore be seen in how wide a variety of different dishes wine appeared. We must be aware, however, that the recipes included in a cookbook did not necessarily translate to the everyday practice of cookery.

8 JUDGEMENTS ON WINE BY POLISH MORALIST WRITERS

More frequent appearance of wine on the Polish tables led to a wave of criticism from contemporary moralists. They complained that wine appeared too often in the Polish reality. They drew attention to the fact that even the lower classes began to serve wine instead of beer, treated as a national drink (Kromer, 1984, p. 66).

The growing popularity of wine also led to the more conservative Poles perceiving it as a cause of cultural changes that occurred in the country. It is worth noting that these changes were noticeable in various areas of life. New food products, more fruit and vegetables in the diet, could be seen. Citrus fruits and other products that had not been present on the tables of Polish nobility and gentry, started to appear. These were purchased mainly from Italy, which, thanks to the marriage of King Sigismund I of the Jagiellonian dynasty to the Italian princess Bona Sforza, began to influence the cuisine and impose new customs. The cultural changes also manifested in clothing. The conservative gentry dressed in the Turkish style, while the more fashionable people incorporated Italian, Spanish and German fashion novelties into their dress. This variety of foreign cultural influences was also apparent in terms of beverages.

In addition to the financial and social status, cultural factors also determined what people drank. Polish traditionalists drank beer while those enamoured of the European ideals enjoyed wine. And thus wine started to be associated with alien foreign cultural influences and its drinking was harshly judged by the moralists. Drinking wine, instead of the homely beer, became an expression of attitudes and beliefs. Thus, drinking wine was used not just to show off one's material status but also to express one's adherence to a particular cultural option. It seems that questions of taste were secondary here.

Another factor determining the choice of a particular beverage was the social origin. As I have mentioned, wine was bought and drunk by wealthy magnates and higher nobility, while lower gentry was content with home-made beer. Pragmatically minded writers warned against entering into marriage with women from wealthy families. Such an unequal marriage was seen as inevitably leading to significant expense. Visits of wealthy wife's relatives were seen as inextricably linked to the necessity of serving wine. This in turn would lead to the financial ruin of a husband of a less wealthy background (Rej, Vol. 1, Bk. II, Ch. I, 2, p. 123).

Wine also appeared in other contexts. While the beer was drunk from wooden vessels, wine required glasses. As glass is a fragile material, the costs of glasses had to be added to the cost of buying wine itself. These were real expenses, especially as the Polish gentry had boisterous habits which included breaking glasses on the heads of fellow participants of feasts (Miaskowski, 1995, p. 343).

Considering all these aspects, it becomes clear that wine became synonymous with a profligate, rakish and extravagant lifestyle leading to squandering of assets (Rej, 2003, Vol. 1, Bk. I, Ch. VI, 1, p. 70). Therefore, the sixteenth century writers often warned against spending fortune on buying large quantities of wine, especially more than could be drunk.

9 MAIN DIRECTIONS OF WINE IMPORTS

The gentry, in order to reduce the cost of wine purchase from merchants, sometimes imported wine directly. Some of the imported barrels were then sold, thus covering incurred outlay (Rej, 2003, Vol. 1, Bk. II, Ch. XVI, 9, p. 407).

The directions from which particular types of wine were imported to the Polish lands were determined by several factors. It was necessary to consider issues such as: political relations with specific countries, the distance and the prices demanded by manufacturers and retailers. The taste was less important in the decisions to purchase specific types of wine.

Hungarian wine was by far the most popular and enjoyed enduring fame. Land trade routes along

which wine was brought also led to Moravia, Austria, Macedonia, Istria, Italy and Greece. French, Rhenish and Spanish wines were imported by sea. Then, from the port city of Gdansk wine was transported across the country (Ruggieri, 1864, p. 132). In the southern areas of the Polish state wine imported from southern Europe was more frequently drunk, while in the north - the wines brought by sea via Gdansk. The distance that wine had to be transported over, the transport costs and the associated middlemen and broker fees all translated into a high final price.

10 POPULAR TYPES OF WINE DRUNK IN THE POLISH LANDS IN THE SIXTEENTH CENTURY

The best known wine consumed in the Polish lands in the described period was the Hungarian Tokay, also called the royal wine (Lewandowska, 2010, p. 35; Lewandowska, 2011, p. 704). In addition to Tokay, a number of other types of wine was present then the Polish market at the time, mostly sweet and/or spiced ones, less frequently dry. The following names appear in the sources: *ipokras*, *trywial*, *muszkatella*, *malmazyja*, *rywula*, *witpacher*, *rozeker*, *piniole*, *alekanty* (Rej, 2006, p. 108, 112). *Ipokras*, named in reference to the name of Hippocrates, contained in its composition spices and was used for medicinal purposes. The name of *muszkatella* probably derived from the Italian word *muscatel* (Latin *muscus*), which denotes a species of vine *Moscatello*, used in southern Italy or Greece for making sweet wine with a musky smell (Bochnakowa, 1984, pp. 81-82). *Malmazyja* (Malvasia, Malmsey) was a red wine produced from a strain called *Malvasia* in the Peloponnese, Crete, Madeira and the Canary Islands. This well regarded and popular type of wine was imported via the trade route passing through Lviv, which suggests its origins in the Peloponnese or the islands of the Mediterranean Sea. *Rywula* probably owes its name to the port of Rivoglio, situated on the peninsula of Istria. However, this name also appears in source materials referring to wines imported from France, Italy and Spain. Another hypothesis would be that *rywula* is the name of the wine produced from the *Ribolla* strain (Gloger, 1996, p. 192). A problem arises with *Witpacher*, a name acquired from German, but probably meaning wine imported from Spain, and specifically from the monastery in

Pajerete (Bochnakowa, 1984, p. 116). In the original version, this wine was called *vid pajerete* in Spanish. A similar trouble occurs with *rozeker*, a name only used by the Polish writer and poet Mikolaj Rej. Publishers of the *Sixteenth Century Polish Language Dictionary* determined that the name should be associated with the Italian word *rosichiero*, denoting pink-coloured enamel. This wine was to be seasoned with rose oil in order to improve its taste and contribute medicinal qualities (Mrowcewicz, 2012, p. 82). The Polish name *piniolo* probably derives from the Italian word *pignuolo*, meaning black grapes that were grown in the Milan area. The shape of the bunch of grapes of this variety resembled a pine cone (Italian *pigna*), and thus the name was applied to the red wine. *Alekant* (*Alikant*) probably meant a sweet Spanish wine produced in Alicante, a south-east region of Spain (Bochnakowa, 1984, pp. 34-35).

11 CONCLUSIONS

As it can be seen, despite the fact that in the sixteenth century Poles treated wine as a foreign, imported drink, and associated it with foreign customs and culture, they knew many types of this beverage. It is worth noting that the names I have discussed originated from source materials of gentry provenance. This shows, on the one hand, a good insight to the wine market. On the other hand, it shows that wine was not an entirely exotic drink, and occasionally appeared on the gentry tables. It also certainly aroused interest among those who, because of low financial status, could not afford to buy it.

It is also worth noting that the Poles were not, after all, sophisticated wine connoisseurs and were not familiar with the taste of outstanding wine varieties. This resulted in fairly frequent cases of wine forgery. The Dutch specialised in wine adulteration, especially of the French wine. They

diluted it with cheaper and inferior types of wine or simply water. To improve the taste of wine that'd gone sour, they added a variety of substances including milk, eggs, spices (nutmeg, saffron, ginger, cloves, cinnamon), herbs (liquorice, anise, wormwood), and even gypsum and lime (Klonder, 1989, pp. 31-33). Thus treated wine had a completely changed flavour and significantly lower quality.

It should also be noted that sweet wines predominated among the imports, which gives some idea about the taste preferences of Poles during the described period. In general, few comments about the taste of wine can be found in the analysed source materials. While in the case of beer some understanding can be observed, wine seems to be a drink whose taste qualities were not quite recognized. Wine drinking was more connected to fashion, increasingly popular in the Polish lands. In the period studied, strong antagonisms could be observed between the supporters of drinking wine, and those who advocated consumption of local beer.

It is also worth to conclude this analysis with a mention of attempts to renew the practice of viticulture in the Polish lands which took place during the Renaissance period. Housekeeping guides contained enough detailed advice about soil preparation and planting and grafting vines (Rej, 2003, Vol. 1, Bk. II, Ch. XVI, 2, pp. 393-394). I have also found in a herbarium a recipe for the production of home-made wine from unripe grapes. First, they had to be sun-dried for a few days, then honey was to be added to begin the fermentation and to improve the taste (Spiczynski, 1542, Cap. 260, Letter 96-96v). These trends aimed at ensuring self-sufficiency in wine demonstrate that wine as such began to become an increasingly important, permanent feature of the Polish cultural landscape.

WORKS CITED

- Anonymous, (1899). *Dobrego zdrowia rzadzenie*, 1532, Pub. and trans. from Latin F. Mymer, Series: Biblioteka Zapomnianych Poetow Polskich XVI-XVIII w., z. 11, Reprint Teodor Wierzbowski, Warszawa: Printing house K. Kowalewski.
- Bochnakowa, A. (1984). Terminy kulinarne romanskiego pochodzenia w jezyku polskim do konca XVIII, In: *Zeszyty Naukowe Uniwersytetu Jagiellonskiego*, Vol. 688, *Prace Jezykoznavcze*, z. 78.

- Czerniecki S. (2010). *Compendium Ferculorum albo zebranie potraw*, Eds. J. Dumanowski and M. Spychaj, with a preface by S. Lubomirskiego, 2nd ed. revised, Series: Monumenta Poloniae Culinaris (Polskie Zabytki Kulinarne), Series ed. J. Dumanowski, Vol. 1. Warszawa: Wydawca Muzeum Pałac w Wilanowie.
- Dias-Lewandowska, D. (2014). *Historia kulturowa wina francuskiego w Polsce od połowy XVII wieku do początku XIX wieku*, Warszawa: Muzeum Pałacu Króla Jana III w Wilanowie.
- Estreicher, S. (1898). Ustawy przeciwko zbytkowi w dawnym Krakowie, *Rocznik Krakowski*, Vol. 1.
- Falimirz, S. (1534). *O ziołach i mocy gich. O Paleniu wodek z zioł. O Oleykoch przyprawianiu. O Rzeczach zamorskich. O Zwierzętach, o Ptaczach, y o Ribach. O Kamieniu drogim. O Vrinie, O Pulsie, Y o inych znamionach. O Rodzeniu dzieciak. O Naucze gwiazdeczney. O stawianiu baniek. Y o puszczaniu krwi. O Rządzeniu czasu powietrza morowego. O Lekarsztwach doświadczonych na wiele niemoczy. O Naucze Barwierzkiej*, Krakow: Printing house F. Ungler.
- Gloger, Z. (1996). *Encyklopedia staropolska ilustrowana*, wstęp J. Krzyżanowski, Vol. 4, 7th edition, Warszawa: Wydawnictwo Wiedza Powszechna.
- Klonder, A. (1989). *Napoje fermentacyjne w Prusach Królewskich w XVI-XVII wieku. (Produkcja – Import – Konsumpcja)*, Series: Studia i Materiały z Historii Kultury Materialnej, Vol. 60, Ed. Zofia Kamińska, Wrocław: Wydawnictwo Zakład Narodowy im. Ossolińskich.
- Kromer, M. (1984). *Polska czyli o położeniu, ludności, obyczajach, urzędach i sprawach publicznych Królestwa Polskiego księgi dwie, 1577*. Trans. from Latin S. Kazikowski, Preface and ed. R. Marchwiński, Olsztyn: Wydawnictwo Pojezierze.
- Kuchowicz, Z. (1971). Uwagi o konsumpcji produktów destylacji alkoholowej w Polsce w XVI w., *Kwartalnik Historii Kultury Materialnej*, Year 19, no 4.
- Kwapieńowa, M. (1959). Początki uprawy winorośli w Polsce, *Materiały Archeologiczne*, Vol 1.
- Kwiatkowski, M. (1889). *Książeczki rozkoszne o pocziwem wychowaniu dzieciak*, 1564, Ed. Z. Celichowski, Series: Biblioteka Pisarzy Polskich, nr 3, Krakow: Wydawca Akademia Umiejętności [This work is a translation of the Latin treatise: Vergerio, Pietro Paolo (1472). *De ingenius moribus ac liberalibus studiis*. Venice].
- Krescentyn, P. (1549). *Księgi o gospodarstwie, y o opatrzaniu rozmnożenia rozlicznych pożytkow, kazdemu stanowi potrzebne*, Transl. A. Glaber, Krakow: Printing house H. Unglerowa.
- Lewandowska D. (2010). Historia „kwasnego Francuza”. Ewolucja pojęcia dobrego smaku i wyobrażeń o winie francuskim w Polsce, In: Rastava Stolicna, Anna Drozd (Ed.), *Historie kuchenne. Rola i znaczenie pożywienia w kulturze*, Series: Bibliotheca Ethnologiae Europae Centralis, Series ed. Z. Klodnicki and J. Langer, Vol. II, Cieszyn Katowice-Brno: Wydawnictwo Uniwersytet Śląski.
- Lewandowska, D. (2011). Od węgryna do szampana: wino, smak i wyroznienie w Polsce XVII-XVIII w., *Przegląd Historyczny*, vol. 102, z. 4.
- Marcin z Urzędowa (1595). *Herbarz polski, to jest o przyrodzeniu zioł i drzew rozmaitych*. Krakow: Printing house Łazarzowa.
- Miaskowski, K. (1995). *Zbiór rytmów*, Pub. A. Nowicka-Jezowa, Warszawa
- Modrzewski, A.F. (2003). *O poprawie Rzeczypospolitej księgi czwore, 1577*, Ed. Mirosław Korolko, Piotrków Trybunalski: Naukowe Wydawnictwo Piotrkowskie przy Filii Akademii Świętokrzyskiej.
- Morawski, Z. (1978). Rozwój i upadek winiarstwa w Polsce (XII-XVI), *Kwartalnik Historii Kultury Materialnej*, 26(1).

- Mrowcewicz, K. (Chief ed.), Wilczewska, K., Woronczakowa, L., Nath-Dokurno A. (Vol. eds.), (2012). *Słownik polszczyzny XVI wieku*, Vol. 36, Warszawa: Wydawnictwo Zakład Narodowy im. Ossolińskich.
- Oczko, W. (1881). *Przymiot*, 1581, [in:] W. Oczko, *Przymiot i Cieplice*, Preface by E. Glinka and A. Kryński, Warszawa: Wydawca Towarzystwo Lekarskie Warszawskie.
- Pelc, J. (1935). *Ceny w Krakowie w. l. 1369-1600*, Lwow: Wydawca Skład Główny, Kasa im. Rektora J. Malinowskiego; Instytut Popierania Polskiej Twórczości Naukowej.
- Petrycy S. z Pilzna, (1956). *Przydatki do Ekonomiki i Polityki Arystotelesowej*, 1601, 1605. In: S. Petrycy z Pilzna, *Pisma wybrane*, Ed. W. Wasik, Preface by K. Grzybowski, Vol. 2, Series: Biblioteka Kłasyków Filozofii, Pisarze Polscy, Vol. 20, Krakow: Państwowe Wydawnictwo Naukowe.
- Potanski, J. (1950). *Wódka albo gorzalka*, 1614, In: *Polska satyra mieszczańska. Nowiny sowiżrzałskie*, Ed. K. Badecki, Series: Biblioteka Pisarzy Polskich, nr 91, Krakow: Drukarnia Uniwersytetu Jagiellońskiego.
- Rej, M. (2006). *Krotka rozprawa między trzema osobami panem, wojtem i plebanem*, Eds. K. Gorski, W. Taszycki, Wrocław: Wydawnictwo Zakład Narodowy im. Ossolińskich.
- Rej, M. (1971). *Wizerunek własny żywota człowieka poczciwego*, Ed. Władysław Kuraszewicz, Pt. 1 Phototype and transcription, Wrocław: Wydawnictwo Zakład Narodowy im. Ossolińskich.
- Rej, M. (2003). *Żywot człowieka poczciwego*, 1567/1568, Ed. Julian Krzyżanowski, Vols. 1-2, Wrocław: Wydawnictwo Zakład Narodowy im. Ossolińskich; De Agostini Polska.
- Ruggieri, F. (1864) *Opis Polski*, 1565, In: *Relacje nuncjuszów apostolskich i innych osób o Polsce od roku 1548 do 1690*, Pub. Erazm Rykaczewski, Vol. 1, Berlin-Poznań: B. Behr (E. Bock).
- Skarga, P. (2008). *Kazanie wtóre miłości ku ojczyźnie i o pierwszej Rzeczypospolitej, która jest z niezycżliwości ku ojczyźnie*, In: P. Skarga, *Kazania sejmowe*, Ed. J. Tazbir, with M. Korolko, 7th edition, Wrocław: Wydawnictwo Zakład Narodowy im. Ossolińskich.
- Skarga, P. (2008). *Kazanie osme o szostej chorobie Rzeczypospolitej, która jest dla grzechów jawnych i niekarności ich*, In: P. Skarga, *Kazania sejmowe*, Ed. J. Tazbir, with M. Korolko, 7th edition, Wrocław: Wydawnictwo Zakład Narodowy im. Ossolińskich.
- Spiczynski, H. (1542). *O ziołach tutecznych i zamorskich i o mocy ich*, Krakow: Printing house Wdowa Unglerowa.
- Starowolski, Sz. (1859). *Reformacja obyczajów polskich wszystkim stanom ojczyzny naszej terażniejszych czasów zepsowanych bardzo potrzebna, tym zwłaszcza, u których jest białe czarnem, dobre złem, potęga sprawiedliwością, wola prawem, upor słuszością, krzywdą odpustem, niewstyd światobliwością, utrata pochwały, obzarstwo grzesznością, a jednym słowem: Quorum deus venter est*, Circa 1650, Pub. K. J. Turowski, Krakow: Wydawnictwo Biblioteki Polskiej.
- Syrenski, Sz. (1613). *Zielnik Herbarzem z języka Łacińskiego zowią To jest Opisanie własne imion, kształtu, przyrodzenia, skutków, y mocy Ziół wszelakich Drzew Krzewin y korzenia ich, Kwiatu, Owoców, Soków Miasg, Żywic y korzenia do potraw zaprawowania Także Trunków, Syropów, Wodek Lekiwarów, Konfektów [...] pilnie zebrane a porządnie zapisane*, Krakow: Printing house B. Skalski.
- Szymański, J. (2001). *Nauki pomocnicze historii*, 5th ed. revised, Warszawa: Wydawnictwa Naukowe PWN, p. 169.

Wirzbieta, M. (1989). *Gospodarstwo dla mlodych a nowotnych gospodarzow, teraz znowu na ten Nowy Rok poprawione i rozszerzone*, 1596, Ed. Jacek Sokolski, Wroclaw: Zaklad Narodowy im. Ossolinskich.

Zbylitowski P. (1605). *Schadzka ziemianska*. Krakow.

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STRESS MANAGEMENT AND THE EFFICIENCY OF OPERATIONS ON ENTERPRISES OF THE TOURISM SECTOR

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Abstract

Professional stress as one of the risk factors for the health of employees and their efficiency in their working represents a daily routine and normal appearance for any enterprise. There is no enterprise or work where there is a certain level of stress does not exist. Stress is all around people, whether viewed from the perspective of an entrepreneur, owner of the enterprise or from the perspective of employees. Efficient and effective management of enterprises requires the introduction of appropriate strategies for recognition, reduction and elimination of stress as a negative phenomenon that affects the business processes in the enterprise.

Stress management as a strategy for increasing the efficiency of enterprises in the tourism sector in the Republic of Macedonia involves taking specific actions in a certain period of time in order to identify the sources of professional stress and reduce stress, in particular identifying the sources that cause long-term, chronic stress among employees.

This paper aims to point out the importance of applying appropriate strategies to manage stress and while working and not, discovering the causes of stress and reducing the impact of stress among employees as one of the risk factors affecting the productivity of the work and efficiency. Considering specific characteristics of enterprises in the tourism sector, the research paper will be implemented by

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means of a questionnaire with the aim of understanding the situation in terms of application of specific tools for understanding and controlling stress among employees in the surveyed enterprises. Based on the results, the conclusion of this paper, a recommendation will be given to the practical application of specific tools through which you can conduct a stress management strategy by management or owners of enterprises.

Keywords: Stress, stress management, human resources, efficiency, tourist sector in Macedonia

1. INTRODUCTION

Stress represents an everyday, normal phenomenon that occurs as a result of reaction to threats and changes that are occurring in the environment as well as the requirements that are expected to be completed by a particular person. In literature, there are many definitions that explain the concept of stress. Most definitions that explain the concept of stress have a negative connotation because it is acting badly in people, but sometimes stress acts positively pleasant and causes positive feelings in people. Professional stress or stress at work generally occurs due to inadequate requirements of the specific work and capabilities of the employee (Lazarus & Folkman, 1986). Stress at work is not only due to the pressure of the working environment, but also due to a general imbalance between the characteristics of the workplace and personal, individual characteristics of the employee. According to Hans Selye – founder of the contemporary theory of stress, stress is a non-specific response of the body to any demand for changes (Selye, 1998). Stress occurs as a result of reaction to stressors. Stressors resulting from the reasons, the source of stress, such as a specific event or multiple events that pose a danger to the person. As a set of physiological, emotional and cognitive reactions from the effects of stressors, symptoms of the stress can be physical or mental nature. Stress cannot be avoided, but it can be controlled or with stress can be successfully managed. Managers should introduce strategies for managing negative stress because it is a condition that the individual cannot control.

2. CHARACTERISTICS OF THE TOURIST MARKET

The tourism market is part of the general market for goods and services, due to the specificities that its constituent elements have, and certain characteristics which distinguish it from other

markets. Tourism market always assumes the presence of both market sides, because the lack of one of them makes it impossible the presence of market relations (Vukonik, 1981). Tourism market represents the sum of relationships and appearances that are arising between tourist offer and tourist demand with the purpose of exchanging of the tourism product at a market price. As a specific market, the tourism market is characterized by the necessity of spatial and temporal synchronization of all participants in the tourism offer. Instead of the classic way of approaching the supply to the demand in tourism, demand heads and moves on towards to the tourist offer. Considering that the resources in tourism are non-transferable, the seasonal character of the tourism market and the specificity of tourism services in terms of time of giving and using the same, the supply meaning the enterprises of this sector should always be ready to respond to the needs and requirements of tourists, consumers. Due to the geographical distance of the tourist offer and demand, there are specific forms of organization and correlation of the supply and demand of the tourist market. Taking into account the characteristics of the holders of touristic needs expressed by the various requirements of tourists, tourism demand represents a complex value. Heterogeneity and sophistication of the tourism demand require great skill in creating the tourist offer. Depending on the aspects of perception and dynamics of demand as a result of the movement of the tourists, constantly imposes the need of introducing a new content that will enrich the tourist offer.

3. STRESS AND EMPLOYEES

Employees in enterprises feel the stress whenever there is a discrepancy between their demands and expectations of the management. Stress affects every employee no matter in which job he is working in the enterprise. Stress represents a response to human in the form of physiological or

psychological deviations or deviations in behavior in response to an external situation (Zimanji,1998). Stress is not a state of fear, tension and should not always be avoided.

Sensitivity to stress is a personal, individual characteristic of each individual, employee. Employees are constantly exposed to stressful situations. The causes and effects of stress among employees depends on the job place, the employee's personal characteristics, level of education, gender, age, family status, qualifications and skills possessed by special ability for self-assessment, personal assessment of the situation and control of the changes of state and behavior. Stress for enterprise employees can occur under the influence of domestic factors and external factors.

In conditions of significant unforeseen changes, all the enterprises and their employees, including enterprises from the tourism sector are daily affected by certain stressors. There are quite a number of factors that act "stressful" of employees. The state of stress at work or in the workplace can be defined as the sum of unwanted, harmful physiological, psychological and behaviorist reactions to the situation in which the requirements of the enterprises are not in line with the capabilities, opportunities and needs (Sauter & Murphy, 1995). Stress in enterprises usually occurs as a result of the mismatch between the demands of the environment and the capabilities of the employee, the changes which are of great importance for the enterprise and the enterprise's employees and certain stressful professions that involve a great responsibility in terms of material value or liability to other people, immediate work and working with people "work under pressure".

Of great importance for employees in enterprises and all entities that are under stress represents just getting to know in terms of reaction to stress, procedures and behavior in terms under stress. Stress among employees is normally associated with the psychological burden of employees. Triggers of the psychological burden of the employees can cause a state of prolonged stress condition that directly affects the performance of work duties, good working environment, opportunities for advancement and positive working environment and thus the overall efficiency in the operation of enterprises. Stress

always represents a relationship between the individual and the environment and not the capacity of the environment or condition of the individual (Lazarus & Folkman, 1986). The environment in which enterprises operate and the organization of work have a great impact on the psychological burden of employees. Harasser or agents of stress among employees creates a situation of constant tension and anxiety among employees, conflict situations and unpleasant working environment. A prolonged state of stress or state of prolonged stress directly affects the health of employees, safety at work as well as the efficiency and effectiveness of enterprise through which the employees work.

4. CAUSES AND EFFECTS OF STRESS

Stress among employees in enterprises occurs as a result of the impact of various factors. Sources of stress at work are: the natural environment, social environment, personal dispositions, work tasks, the degree of satisfaction of the work and positions of employees in the enterprise (Wagner & Hollenbeck, 2002). Stress among employees can occur under the influence of external and internal factors.

The group of the internal factors - causers of stressful conditions include factors that are arising from the employee itself and those are the personal expectations of the job that can be overrated or underrated, the need for total control of the situation in the enterprise, high sensitivity performance and enhanced sense of self responsibility in all segments of the enterprise, empathy of the personal situation of the enterprise, unsuitably behavior in terms of operating time, expressed sense of insecurity, inadequacy and knowledge to perform their work duties.

The group of external factors includes the factors derived from the enterprise itself and those factors are: enterprise environment, structure of organizational processes, communication in the enterprise, organization of work and working time, which can be organized as shift work, overtime and financial aspects of the work, not properly paid engagement, inadequate criteria for rewarding and irregular payment for work salary and allowances of salary, benefits and etc., the

challenges of introducing changes in operations, which can cause stress in employees from losing work, reducing the salary and financial benefits, causing conflicts, not precise tasks and reducing the number of employees and so on. Employees in companies in addition to being affected by stress conditions in the company while they are under the influence of various stressors that are located outside the enterprise and working environments such as family and relationships outside of immediate family, relatives and friends.

Employees in enterprises in addition to being affected by stress conditions in the enterprise, they are also under the influence of various stressors that are located outside the enterprise and working environments in and outside of immediate family and relatives and friends.

Stress represents a phenomenon that often adversely affect the efficiency of operations. But in terms of the operation with a certain level of stress can act positively. For example, the manager can change the state to initiate engagement of more productive work. The positive impact of work stress is greatly reduced when stress reaches a higher level. The survey results show that the negative effects are more present of the impact of stress, unlike positive. The effects caused by high levels of stress at work among employees present on these ways (Zimanji,1998): physiological problems, changes in metabolism, high blood pressure etc., psychological problems such as fear, tension, delayed execution of tasks or failure and problems in behavior - absenteeism, job turnover, changes in productivity and efficiency.

5. STRESS MANAGEMENT IN ENTERPRISES

The efficient operation of enterprises is usually connected with efficient management. Effective corporate governance means formulating an appropriate business strategy and overcoming various obstacles in operation. Through the strategy of operation, managers convey a vision of what should be enterprise's employees. If employees agree with the vision of the management and the enterprises they develop responsibility to take hard, stressful work which is necessary for creative, risky developing strategy (Jung & Avolio, 1990).

People-employees are the most important factor that can be changed in order to improve operational efficiency and respect for the rule that the right person works in the right place which represents a roadmap for implementing a successful strategy for improving the operation. Controlling stress represents the basis for efficient operation of the enterprise because of effective performance is not only important personality traits such as responsibility, ability to work, ability for self-control, etc., but also of great importance is the ability to control negative feelings resulting from the impact of the causes of stressful conditions.

Purpose of management is to ensure conditions for growth and development through the introduction of innovative strategies and predicting the future phenomena that may cause adverse effects in operation. Predicting the future phenomena that may cause stressful conditions among employees is the responsibility of management. Enterprise managers can implement a variety of strategies to predict, reduce and control stress among employees.

Therefore, it is of great importance that managers have the ability to perceive reality and thoroughly analyze the factors that cause a stressful situation for employees. Employees are an important factor affecting the organizational development and performance measurement. Highly motivated human resources create higher value. To be highly motivated, human resources have to be able to control the impact of stress at work and outside work.

To maximize the efficient operation of enterprises, management may initially implement preventive strategy for disclosure of sources of stress before facing the employees with specific problems. Once analyzed the factors and causes of stress, management could implement a strategy to reduce the impact of stress and a controlled strategy for maintaining adequate levels of stress and where it occurs.

Enterprise management implements preventive strategies for managing stress through continuous informing of employees about the enterprise's organizational structure, goals and strategy work, work performances, introduces and familiarizes with work, because how much better employees know the work the more are targeted towards

efficient operation and are taking care of the requirements and needs in the respective workplace to be comply with the qualifications, skills and ability of the staff.

Strategy for disclosure of sources of stress before facing employees with specific problems a preventive strategy. This strategy is implemented through fostering good interpersonal relationships, mutual trust, cooperation and communication. Good communication represents a condition for improving the operation because it contributes to the detection of the factors causing stress among employees.

A strategy to reduce the impact of stress will appear after specific problems require the implementation of specific actions to overcome the emerging problems. Programs to eliminate negative feelings and elimination of negative phenomena through open and honest communication is a term for overcoming the problems. As part of programs to eliminate the negative effects and phenomena represents the introduction of programs for sport, recreation and sports, organizing parties within the enterprise, development and practice of ceremonies and rituals. Ceremonies and rituals represent formal events through which have recognized the importance of events in the enterprise as a whole (Berger & Luckman, 1967). Management strategy or maintain a certain level of stress and a place where there is implemented through programs for controlling the sources of stress and stress at the spot where they appear. Through communication and open conversation reveals the place of occurrence of adverse events, and the impact of stressors which may be the enterprise, specific work environment or family. Revealing where stress occurs allows controlling the stress and preventing the stress transfer from one to another location. Negative, stressful situations in the enterprise should be shared with family members and friends and vice versa, but should be resolved within the enterprise and vice versa, negative feelings in the family should not be transferred and shared with colleagues at work.

6. RESEARCH METHODOLOGY

In order to perceive and determine the condition in terms of application specific tools for understanding and controlling stress among

employees in enterprises of the tourism sector in the Republic of Macedonia meaning does the owners of the management of the surveyed enterprises apply appropriate actions or strategies for managing stress among employees a practical research was conducted through questionnaire method (In addition to text). During the period from July to December 2015 through a questionnaire method which consisted ten questions was delivered to owners and managers of 130 private enterprises. From that 130 private enterprises in the country were examined of which 105 enterprises completed the questionnaire as for the other enterprises, interest in completing the questionnaire didn't show.

7. SURVEY RESULTS

1. According to the results of the conducted survey, it can be concluded that on the first question: Do you inform your employees about the aims and objectives of your enterprise operation? All managers who filled in the questionnaire or a total of 105 - 100% answered positively that the management informs employees about the aims and objectives of the operation.
2. The question: Does employees are informed of the results that are expected of them? 71 managers or 67% of respondents answered affirmatively that they inform employees about what is expected of them and the rest or 33 managers do not inform employees about what is expected of them.
3. The question under number 3: Do you inform employees about how to measure the performance of its work? 65 managers or 61% said yes and 40 managers or 39% answered negatively that they do not inform employees about how to measure results of operation.
4. The question: Does in terms of the enterprise informal methods of communication are applied to employees? Only 25 managers or 24% of managers surveyed answered positively in terms that and 80 managers or 76% of the respondents are not using informal methods of communication.
5. The fifth question: Does programs for selection and choice of employees is applied in the work place? 48 managers or 46% applies appropriate selection programs and selection of employees depending on the

specific job and 57 managers or 54% do not have any programs for selection and choice of employees.

6. The next question: Does in the enterprise are practiced certain rituals, festivals and so on for certain events? 38 managers or 37% answered positively and 67 managers or 63% responded negatively, meaning that they do not have practice to mark an appropriate manner the events that occur and affect the operation of the enterprise.
7. The question: Does as owner, manager of the enterprise, you are organizing parties and gatherings for employees? 32 managers or 30% of the surveyed managers responded positively meaning that they usually organize parties on the occasion of specific celebrations and 73 managers or 70% said that they do not organize parties or other type of formal events to socialize employees.
8. The eighth question: Does within the terms of the enterprise, there is adequate room for socializing, sports etc. that employees can attend at work? Only 9 or 8% of managers responded that in the enterprise, there is a room for leisure activities of employees at work and 96 enterprises or 92% of the surveyed enterprises do not have a room of its kind.
9. The next question: Are programs introduced for early detection and prevention of stress among employees? 11 managers or 10% of the surveyed managers responded positively and 94 managers or 90% responded negatively or do not recognize the reasons for causing stressful conditions of employees.
10. The last question: Are there organizational resources within the enterprise for implementation of stress management - employed, counselor, psychologist, doctor, etc.? All surveyed managers responded negatively that in terms of the enterprise, there is no specific department or employee who could employees seeks for proper help when in need.

According to the given results it can be concluded that enterprises from the tourism sector in the Republic of Macedonia have not yet applied to specific tools or programs to detect, prevent and manage stress at work and outside of work. Also the management of enterprises still has not

provided any organizational conditions which consist in equipping a separate room for socializing, entertainment, sports, etc., within the enterprise and the establishment of a separate department or employee, doctor, psychologist, etc. where employees in case of need could seek appropriate professional help. Basically, stress management aims to identify the causes or sources of stress, prevent, reduce or eliminate stress among workers, specifically the reduction of chronic, constant stress. Since the results of the survey show that enterprises the field of tourism sector in the Republic of Macedonia, which were the subject of research not apply mechanisms for stress management within and outside work, it means that their managers cannot perceive and control the stress among employees who is acting negatively on their work and thus directly affect the efficiency of operation of enterprises.

8. CONCLUSIONS

New ways of working stress bring out the importance of employees as a resource that can be changed and adapted to increase the efficiency of enterprises. Employees are not just simple executors of tasks but also collaborators who are expected to work effectively, to have appropriate education, experience, to be creative, responsible and committed to the work. From each employee is expected certain accomplishments. Employees are faced with entirely new approaches to understanding and solving the problems and dilemmas at work.

Professional stress as one of the risk factors for workers' health and efficiency is a daily and normal present in any enterprise. There is no enterprise or work where there isn't a certain level of stress. Normally the stress is associated with the enterprise's employees, the organizational culture of the enterprise, communication enterprise, organization of work, the manner of resolving conflict situations in and out of work. Fluctuating and unpredictable business environment is changing working conditions and requires the introduction of new modern strategy for the management of enterprises which represents an opportunity to improve and increase the efficiency of operations.

Effective stress management among employees lies in the ability of management to recognize,

- Jung, D.I., & Avolio, B.J. (1990). Opening the Black Box: An Experimental Investigation of the Mediating Effects of Trust and Value Congruence on Transformational and Transactional Leadership: 1992 Beyond, *Journal of European Industrial Training*
- Lazarus, R. S., & Folkman, S. (1986). Cognitive theories of stress and the issue of circularity, In M H Appley and R Trumbull (Eds)
- Sauter, S. L., & Murphy, L. R. (1995). Organizational risk factors for job stress, American Psychological Association Washington, DC
- Schneider, B., & Smith, D.B. (2004). Personality and Organizational Culture, *Personality and Organizations*, Mahway, New York., Lawrence Erlbaum
- Selye, H. (1956). *The stress of life*. New York: McGraw-Hill Book Co.
- Selye, H. (1998). A Syndrome Produced by Diverse Nocuous Agents, *The Journal of Neuropsychiatry and Clinical Neurosciences*, N.10
- Wagner, A.J., & Hollenbeck, R.J. (2002). *Organiz.ttiiorrul beltuvior*, Harcourl Ciollege Publishers. Fort Worth
- Zimanji V. (1998). *Psihologija organizacije*, Ekonomski fakultet Subotica, Srbija

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FINANCING OF SMALL ENTERPRISES INVESTMENT PROJECTS: INNOVATIVE ASPECT

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JEL category: **D92, E22, G31, O16**

Abstract

In modern conditions, at a time when the volatility of the raw commodities markets does not allow building the long-term forecasts, to ensure a sustainable economic growth and the transition from the raw to innovative way of development is the main benchmark for macroeconomic policy of Russia. Small business presents the most popular form of business in world leading economies, in many ways determining the social-economic and innovative development. However, in Russia the level of development of small business is insufficient for operative creation of work places and revitalization of supply and demand in local commodity markets. In recent years, the sectoral structure of small businesses is almost the same. Nonproductive environment of activity in Russia remains more attractive than productive due to a higher profit rate, and as a result the processes of generating innovations, diversification and technological development are realized with extremely low speed.

In terms of sanctions and restrictions, the foreign partners imposed against Russia, the importance of improving the state policy in the spheres of regulation and support of innovative activity, and the stimulation of technological processes updating, including small business, objectively increases. To agree with the possibility of using the territorial economic levers for encouraging the progressive development of the economy, it is necessary to change radically and simultaneously the state policy in the field of regulation and support the innovative small business.

Keywords: *small business, financing of innovations, financial market, innovative security, innovative project.*

1 INTRODUCTION

At the present stage the most important social-economic role plays a venture business, as the most effective form of realization the achievements of scientific and technical development of small innovative enterprises. The

practical developments of modern science allow the small firms to reduce the costs of small-scale production, to improve the quality of manufactured products, to create new samples of products, taking into account the needs of consumers, using their key benefit – a low bureaucratic component of entrepreneurial processes. Successful world experience defines the essential role of the state and of the programs of supporting the development of venture entrepreneurship and its financing as a catalyst in creating and developing

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the growth industry of venture business. The mechanisms of venture business in Russia are still poorly developed, particularly in the realization of complex challenging programs, conducive to the development of the venture business at different stages and to the reduction of investment risks. At the present stage, it raises the question of venture development problem that is updated for Russia, and reinforce the innovation processes in the economy. All this requires the effective government policy in the field of regulation and supporting the small innovative business, reflected in special measures of functioning organizing, regulating and financing of venture business. On the basis of theoretical and methodological researches of business foundations^{1,2,3} and economic potential of innovative business we have found that the most efficient form of investment for small innovative businesses is venture capital financing with government participation. At the same time, the main advantages of the systematic cooperation of small innovative enterprises with high-tech systems are defined:

- the level of certainty of orders for small innovation enterprises is increased;
- appears the mechanism of moderating prices for the small enterprises goods, through cooperation with large enterprises;
- raises the possibility of obtaining by small innovative enterprises the significant investments for R&D from the large enterprises and corporations, that improves the conditions of generating small firms innovations.

In our view, the improvement processes of venture financing, as a basic element of modernization of the system of state regulation and supporting the development of small innovative entrepreneurship, should include the following main directions:

- making the legislation competitive regarding the other countries;
- generation of sufficient for the prospective investments, without which the venture capital cannot develop sustainably;

- ensuring wide access to technologies in the forefront of science;
- creating tax incentives and removal of tax barriers;
- organization of training system for potential entrepreneurs, the realization of which will improve the efficiency and competitiveness of innovative - oriented enterprises, creation of favorable economic environment.

Nowadays effective functioning of innovation system is one of the most important Russian national economic problems, as domestic products competitiveness depends on the efficiency of this sphere. Attracting investment and innovation resources has a direct impact in employment of the population, creates the necessary conditions for its decent life.

The analysis of Russian innovation processes showed financing innovation activity mechanism to be ineffective. Statistics says: in developed countries 70-75% of investment in innovation is the private equity, 25-30% of R&D expenses are credit commercial banks, while in Russia the same data are 40% and 5-7%. (Khanbalayev, 2013, p. 141)

2 METHODOLOGY

It should be noted that the investment sphere at enterprise level in the Russian Federation is fragmented and underdeveloped market of investment resources that is not agreed and ineffective. The poor development of market information infrastructure interferes with the interaction of domestic producers and potential investors. In this connection it is necessary to bring to the investment arena new Russian innovation sector players - insurance companies:

1. create insurance pools and corporations (including international insurance companies) to rank insurance risks in large investment projects;
2. significantly expand reinsurance boundaries (Fedorova, 2008, p. 56)

Investment risk is associated with the specific investments by funds in various projects. The risks of these transactions usually takes the investor,

¹ (Law N39-FZ, 1999)

² (Law 4015-1, 1992)

³ (Law No.39-Z, 1996)

and almost the only defense against them are the reputation and the borrower or issuer of securities assurance specified in the release (production) or the loan agreement conditions. Insurance of such risks are increasingly in demand in the market.

In modern conditions the part of the financial market, providing the most rapid overflow of financial resources in the investment is the stock market. It allows companies to get significant amounts of money at almost any time and usually on more favorable terms than a bank loan. Thus, developing and implementing a mechanism of attracting investments in innovative business characterized by its novelty seems to be appropriate. Development process issue and placement of innovative security staging are shown on figure 1. Let us have a more detailed look at each step content.

Step 1. To attract borrowing funds to finance their drafts company-innovator is offered to emission innovative securities, giving investors the opportunity to share in the draft, developed by the issuer's. There is no such a security in practice. In this regard, we consider it necessary to develop the mechanism of emission and circulation of innovative security Single.

Single (from English "single" the only one, separate) – a security, confirming its owner's equity ratio (investor) in company-innovator draft (issuer), issued this security. When the draft generates revenue, issuer obliges to pay out interest due that will depend on this product demand. The firm resorts issuer Single to attract additional investments.

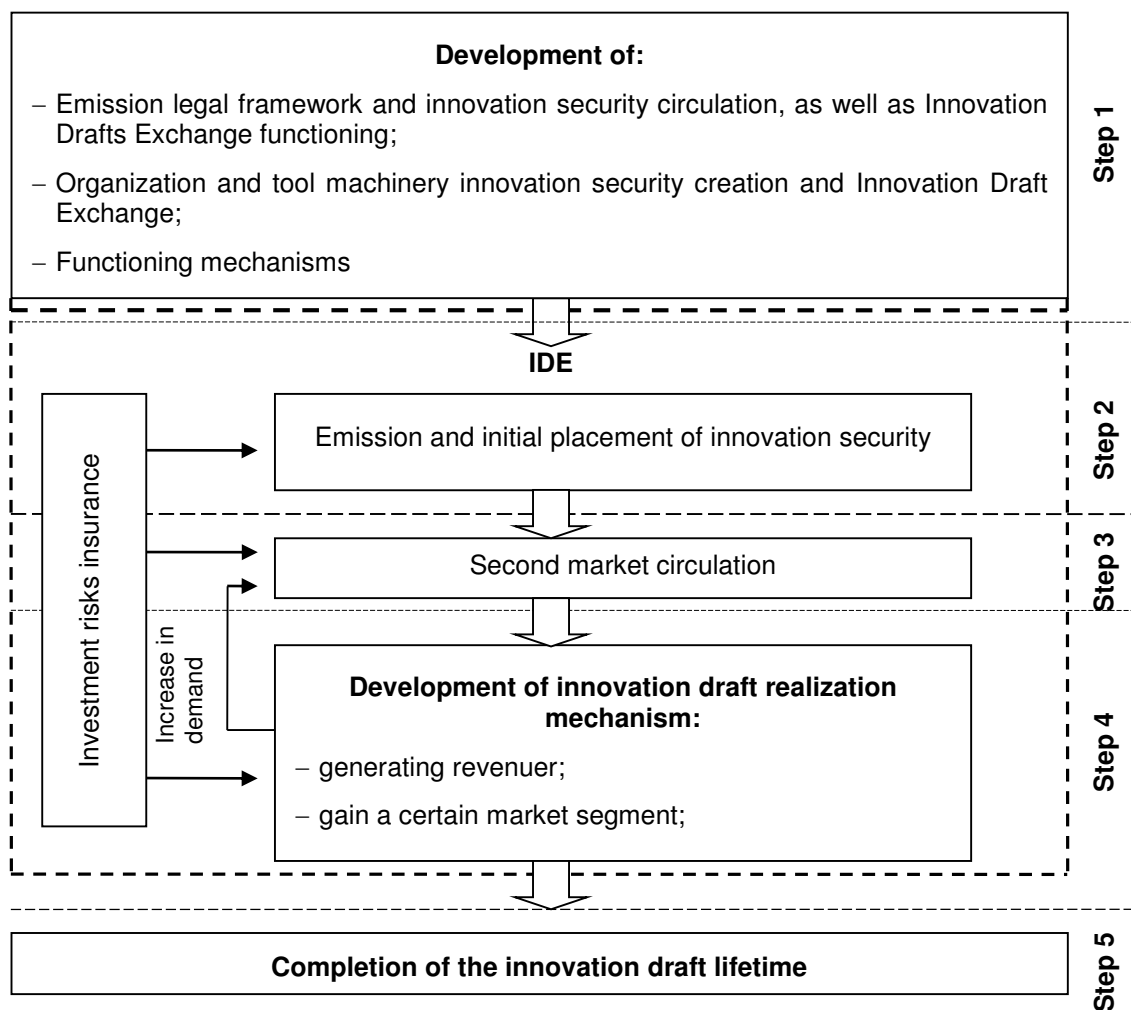


Fig. 1. *Development process, issue and placement of innovative securities staging (authoring)*

Step 2. Emission and placement in the primary market results in investment security finding its

owner (it can be both physical and legal persons). After Single is sold at initial market, it circulates to

a new owner and by that ends the first cycle of its circulation.

In addition, at this stage, the investment risks insurance on issued securities occurs. This element extends through all the remaining stages of the security "life". To cover security insurance, we will start from one of the following objects of Single insurance:

- investor's income (annual);
- Single draft "life" period income;
- the capital loss risk invested in the purchase of Single.

The primary market task is to provide issuers financial resources inflow. When issued Single

moves on stock market it goes to the secondary market.

Step 3. Single placement in the secondary market. We offer to develop a qualitatively new platform to implement the innovative ideas - Innovation Drafts Exchange (IDE) to place Single, investors finding the draft as a result.

The main IPE creation idea is to combine firms-innovators, that want to get financing to develop their innovation drafts by placing Single and investors, that temporary have free recourses and want to put them on Single efficient innovation drafts. Let's single out main parts and functional elements IPE (Fig. 2).

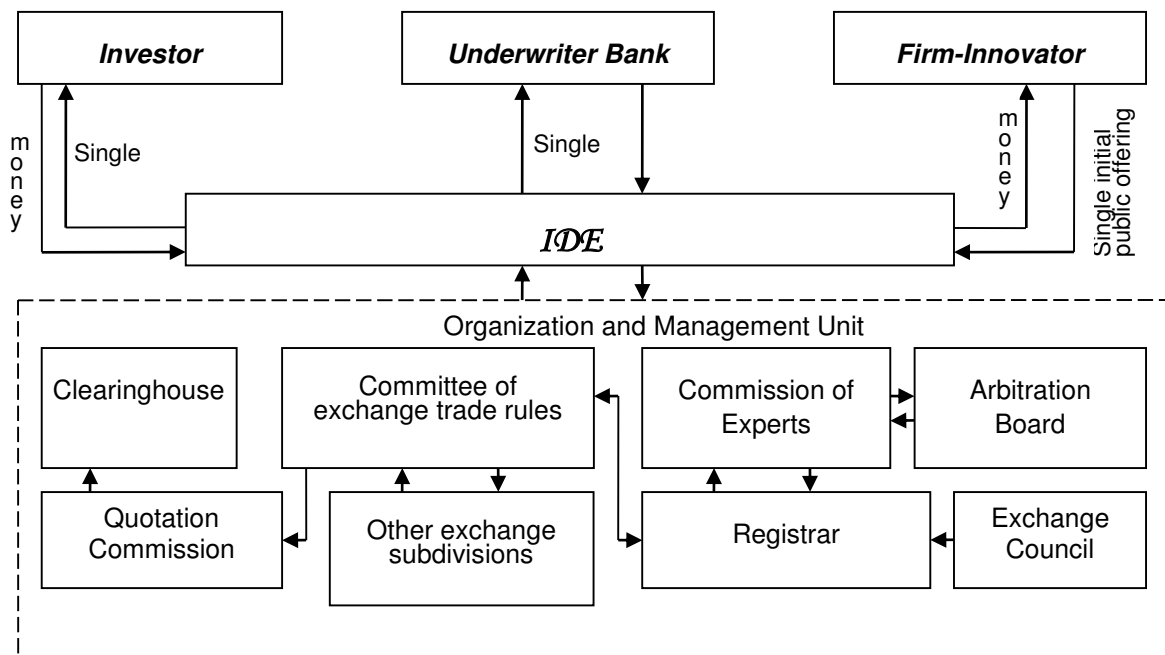


Fig. 2. The model of functioning IDE (authoring)

Innovation drafts investors can be:

- legal entity;
- individual entrepreneurs;
- commercial banks.

Besides, bank can perform two functions:

- to invest by buying Single drafts, that are already placed at IDE;
- to be underwriter.

Step 4. The development of Innovation project realization mechanism. The project describes income generating system, a conquer strategy of one market segment and is to solve social problems.

Single income is composed by:

- Interest income, entered and paid monthly out from the moment the draft being recognized on the market;
- Income in the form of a discount, which is the positive difference between the purchase price and the price of repayment of investment securities.

Step 5. Completion of the innovation project lifecycle. After a certain period of time projects come to an end, when reached its goal, or when the project itself is obsolete or the practical use of the product being significantly decreased. At the stage of completion, as a rule, the project is displaced by more elaborate.

Application of the developed tools in practice allows carefully to review the behavioral guidelines of innovative company activity to

innovate and gain economic benefits, expressed in the sustainable development of the company, strengthening its position in the market, improving the efficiency of its operations.

3 CONCLUSIONS

Russia so far has failed to bring to the same level science and the private sector. Moreover, this is a fundamental task for Russian politicians today. Investing in innovation is one of the most advanced directions of wide innovation activity provision in the country.

To develop innovative economy and to stimulate the formation of new markets it is necessary to create a special innovation infrastructure. There

are innovative products created on the Russian Federation territory, that often dwarf Western analogues, both in quality and at low cost. The problem is that in reality the system has not worked out of the scientific and technical analysis, scientific and technological research and the interaction of all of its elements.

The implementation of the proposed methodology enables entrepreneurs-innovators to attract investment for their projects, and investors will get extra income while minimizing risk through insurance, which, in turn, will improve the competitiveness of Russian innovative products in the world market.

WORKS CITED

- Fedorova, T. (2008). *Strakhovaniye* (3 ed.). Moskva: Masters.
- Khanbalayev, K. (2013). Sovershenstvovaniye form i metodov gosudarstvennogo regulirovaniya strakhovoy deyatelnosti. *Innovatsii i investitsii*(3), 140-146.
- Law 4015-1. (1992, Nov 27). Law of the Russian Federation - On the Organisation of Insurance Business in the Russian Federation. Retrieved from ins-union.ru/U_FILE/MS_DOC/zakon_o_strah_english.doc
- Law N39-FZ. (1999, Feb 25). Russian Federation - Federal Law - On investment activity in the Russian Federation in the form of capital investments. *N39-FZ*, 11. Retrieved from http://russiaindiabusiness.com/ob_investicionnoy_deyatelnosti_v_rossiyskoy_federacii_eng.pdf
- Law No.39-Z. (1996). The stock market. In *Federal Law No. 39-FZ of April 22, 1996 - On the securities market* (pp. 12-16). Moscow.
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TAX HARMONIZATION ASPECTS OF SEE REGIONAL INTEGRATION PROCESSES

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JEL Category: F13, F15, H25

Abstract

Six of the countries in Southeast Europe - Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia and UNMIK can still be considered as small and relatively isolated from an economic point of view. It seems that CEFTA 2006 as a separate effort of regional integration in Southeast Europe is not likely to have a substantial positive effect on the economic development of the region. Recent strategic theoretical and empirical studies show that the short-term economic implications of regional integration between developing countries are ambiguous. It seems that the main argument in favor of deeper regional integration between the six Southeast Europe countries will be the increased security through cooperation. The harmonization and coordination of the tax and customs legislation is of specific importance for the successful operation of CEFTA 2006. The maintenance of clear rules, in line with the European requirements regarding corporate and indirect taxation and control is of substantial importance for securing long-term fiscal stability in the region. An agenda for sustainable growth of the SEE-6 countries is much needed to stimulate further reforms orientied at the succesful accession of the region in the European Union.

Keywords: SEE, CEFTA 2006, regional integration, tax harmonization

1 INTRODUCTION

In 2016 six of the countries in Southeast Europe usually referred as the Western Balkans - Albania, Bosnia and Herzegovina, Macedonia, Montenegro, Serbia and UNMIK (hereinafter SEE - 6) can still be considered as small and relatively isolated from an economic point of view. It could also be argued that stabilization in Southeast Europe is possible only if higher speed of economic growth and deeper trade integration is reached. In this way the economic isolation of the

countries can be considered as one of the main obstacles towards faster and more sustainable economic development in the region.

The processes of regional integration in the SEE region can be traced back to 2001 when seven countries in Southeast Europe: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, Romania and FR Yugoslavia signed in Brussels a Memorandum of Understanding on the establishment of a Free Trade Zone in the region by the end of 2002 on the basis of bilateral free trade agreements. This Memorandum also expressed the intention of these countries to harmonize their legislation with that of the

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European Union including the harmonization of tax and customs legislation.

15 years after the signing of the Memorandum of Understanding a significantly different situation can be observed:

- Bulgaria, Croatia and Romania joined Slovenia and Greece in the European Union and in 2014 Albania has finally received EU candidate status and lined up with Turkey, Macedonia, Montenegro and Serbia;
- FR Yugoslavia no longer exists and we have now Serbia, Montenegro and UNMIK (hereinafter “Kosovo”) separated.
- From EU perspective Bosnia and Herzegovina and Kosovo are considered “potential candidate countries”. Albania, Bosnia and Herzegovina, Macedonia, Montenegro and Serbia have Stabilization and Association Agreements (SAA) in place, while Kosovo whose limited recognition has complicated its relationship with the EU, has only initialed a SAA.
- CEFTA is again completely reshaped as a multilateral trade liberalization vehicle and the current members are Albania, Bosnia and Herzegovina, Macedonia, Moldova, Montenegro, Serbia and Kosovo. The existing network of free trade agreements was cancelled and replaced by CEFTA 2006 agreement.

CEFTA 2006 agreement contains special provisions regarding liberalization of trade in industrial and agricultural products, technical barriers to trade, rules of origin and customs cooperation and the new trade issues such as strengthening cooperation in trade in services, investment, public procurement and intellectual property rights. The main objective of CEFTA 2006 is to facilitate the expansion of trade in goods and services and foster investment by means of fair, stable and predictable rules. It is expected that the Agreement will provide the necessary conditions for the members of CEFTA 2006 to prepare for EU accession, which was the agenda successfully achieved by the previous and founding members of CEFTA.

SEE – 6 group, which is the main focus of the current analysis, has a population of more than 18 million people and a territory of 207,821 square

kilometers. The economies although having positive growth rates with the exception of Serbia are relatively small in terms of GDP and GDP/capita. The total GDP for SEE-6 is around USD 97 billion based on the data of CIA World Factbook (CIA, 2015). The unemployment rates in SEE - 6 are also very high – lowest in Serbia at 17.6% and highest in Bosnia and Herzegovina at 43.6%.

The trade balances for all the countries are negative as the total trade balance for SEE-6 is – USD 19.9 billion. According to CEFTA statistics (CEFTA, 2015) for the first half of 2014 the share of the countries in imports of CEFTA is around 9%, while the share of countries in export of CEFTA is around 17%. Compared to other South-South regional integration agreements (RIAs) CEFTA is within the group of relatively strong trade blocks like ASEAN and MERCOSUR (Schiff & Winters, 2003, p. 66).

2 RESEARCH ON REGIONAL INTEGRATION

The complexities of regional integration are quite successfully summarized Mr. Masood Ahmed, a former Director of the International Economics Department of the World Bank in the foreword of series of World Bank policy research working papers (e.g. Policy Research Working Paper Series No. 1750 (Blomstrom & Kokko, Regional Integration and Foreign Direct Investment: A Conceptual Framework and Three Cases, 1997)):

“As regional trading arrangements (RTAs) have spread, enlarged and deepened over the last decade, they have posed challenges to economists on both intellectual and policy levels. On the former, do RTAs stimulate growth and investment, facilitate technology transfer, shift comparative advantage towards high value-added activities, provide credibility to reform programs, or induce political stability and cooperation? Or do they, on the other hand, divert trade in inefficient directions and undermine the multilateral trading system?

The answer is probably “all of these things, in different proportions according to the particular circumstances of each RTA.” This then poses the policy challenge of how best to manage RTAs in

order to get the best balance of benefits and costs. For example, should technical standards be harmonized and, if so, how; do direct or indirect taxes need to be equalized; how should RTAs manage their international trade policies in an outward-looking fashion?"

What could be the possible economic implications of CEFTA 2006 and further EU accession for the SEE - 6 countries on FDI, growth and taxation? The following brief analysis is based to a greatest extent on the conclusions of various theoretical and empirical studies relevant to similar type of regional trade integration discussed in the present article. From theoretical perspective the specialized literature (Schiff & Winters, 2003, p. 66) identifies three main types of trade integration:

1. "North – North" integration between developed countries (EEC, Canada joining CUSFTA);
2. "North – South" integration between developed and developing countries (Mexico joining NAFTA);
3. "South – South" integration between developing countries (ASEAN, MERCOSUR, CEFTA).

This division is quite important as the economic implications of the various RIAs may vary substantially depending on the type of economic integration perceived. In the subsequent analysis the focus will be mainly on the "North – South" and "South – South" models as obviously CEFTA 2006 or Southeast Europe consists of developing countries.

2.1 FDI and Regional Integration

Undoubtedly there is some correlation between the levels of foreign direct investment (FDI) and the degree of trade integration. However, depending on the economic status of the countries (North or South) involved in the trade integration processes, the impact of trade integration on the inflows or outflows of FDI may differentiate a lot. A number of additional factors such as political, trade protection or administrative developments, geographical location and infrastructure are relevant to FDI allocation as well. At the same time, additional determinants of such processes are the character of the already existing FDI and

the time dimension (detailed analysis by (Blomstrom & Kokko, 1997)).

The most immediate result of a trade integration process is the elimination or reduction of tariff barriers between the countries part of the RIAs (see also (Bhagwati, Protectionism, 1988)). In its turn, the reduced tariff barriers may lead to a decrease in intra-regional FDI, as a substitute for the increased trade between the countries. Thus, since there is a common market, there is no point of further investments in the region made by local companies – i.e. the comparative benefits of moving or spreading production to the other target country are less since the customs duties were reduced. One of the most important dynamic effects is the "reallocation of production resources to more closely reflect of regional comparative advantages" (Blomstrom & Kokko, 1997, p. 11).

Thus, although outward FDI is likely to increase, the precise effects for each country within the RIA cannot be easily identified. MERCOSUR is a typical example of South – South integration between the countries of Argentina, Brazil, Paraguay and Uruguay. The initial empirical studies on the impact of the establishment of MERCOSUR on FDI suggest that macroeconomic stability is a more important determinant of FDI than is regional trade integration itself. As a result the outward FDI has increased substantially. However, it can be noticed that FDI flows are not distributed equally among the MERCOSUR countries. As far as Brazil and Argentina possess more locational advantages than Uruguay and Paraguay, the bulk of FDI is likely to be focused there in the short and medium term. Schiff and Winters, argue that South-South RIAs are unlikely to add credibility and may even hinder FDI if not accompanied by liberalization with the rest of the world (Schiff & Winters, 2003, p. 17).

2.2 Regional Integration and Growth

Recent studies have explored whether the trade openness of the economies, their market size and the relevant economic development of countries that are close geographically have any positive impact on growth in the home country. In 1998, Athanasios Vamvakidis (Vamvakidis, 1998, p. 251) published a report on the correlation between regional integration and economic growth. Based

on the analysis and the empirical evidence gathered, the author concludes that “countries with open, large, and more developed neighboring economies grow faster than those with closed, smaller, and less developed neighboring economies”. The study concludes that based on the empirical models, the small countries participating in North – South integration will face faster growth. However, the tests performed with regard to the correlation between growth and regional integration under 4 distinct RIAs (ASEAN, ANCON, CACM and UDEAC) show negative results. The author explains these results with the fact that the members were “small, highly protected and similar in their economic endowments”. Subsequent research showed mixed results as “the net impact on a country’s growth of trading with relatively less developed countries is an empirical question: it is negative if the relative income effect dominates and positive if the relative growth effect dominates” (Aurora & Vamvakidis, 2004, p. 4). On the other hand, the results of the same test for the European Union are positive for the same period and these results confirm that actually EU regional integration had positive impact on growth.

2.3 Integration and Harmonization of Taxes

How does regional trade integration affect corporate tax rates in the partner countries? This is one of the questions that have to be addressed prior to entering in a RIA. In summary, the removal of barriers to movement of goods and services across borders will lead to changes in the allocation of resources (see (De Bonis, Regional Integration and Factor Income Taxation, 1997). Thus, partner countries will face the necessity of establishment of a certain level of income tax uniformity. Such uniformity could be achieved through tax harmonization or through competition. However, in the case of competition, the income tax rates are likely to fall below their optimum limits, which will lead in its turn to losses in budget revenues. More recent research on the effects of income tax harmonization in the context of regional integration (see (De Bonis, Regional Integration and the Co-ordination of Capital Income Taxation, 2002, p. 1)) suggests that

„international tax uniformity does not appear to be the preferable solution“.

Harmonization of income taxes is far from being accomplished even in the European Union. The harmonization of income taxes does not simply mean harmonization of tax rates. In order, to achieve considerable level of harmonization, the countries should implement similar if not the same basis for corporate taxation. For various reasons: historical, political, social and economic, this is almost impossible in the near future. On the other hand, competition among the states will lead to constant downsizing of the rates and/or introduction of tax incentives. What can be the solution in such case? One useful suggestion is that some sort of international tax coordination is needed (see also (De Bonis, Regional Integration and Factor Income Taxation, 1997)) in order to limit the undesirable effects of revenue losses in the partner countries.

Another, important issue in this respect is the elimination of double taxation of income by way of Double Tax Treaties (DTT). The differences in the treatment of certain types of income such as dividends, interest and royalties can partly be eliminated between each pair of partner countries in the form of a DTT. Thus, the network of the existing DTT should be considered, prior to entering in the RIA. It can be presumed that DTTs usually encourage cross border trade and investment, and it is advisable that the countries in the RIA enter into DTTs with each other as well.

The correlation between RIA and personal income taxation is not of such importance. This can be partly explained by the fact that additional contributions (social, health, unemployment, etc.) affect the amount of take-in-home money of the employees. Substantial distortions in the allocation of labor resources among the countries in the region can only be expected if there is a considerable difference in the living standards and real wages of the countries in the region (see also in (Bhagwati & Hudec, Fair Trade and Harmonization: Prerequisites for Free Trade, Volume 2, 1996)). Additional restrictions on the movement of people (visas, work permits, etc.) can also prevent such reallocation.

A certain degree of harmonization of indirect taxes is important for the success of each RIA (see also

(De Bonis, Regional Integration and Commodity Tax Harmonization, 1997)). One of the main concerns is relevant to the level of cross-border shopping. Once, the tariff barriers are removed, the residents of the bordering territories are more likely to shop across the borders. If there are considerable differences in the rates of the indirect taxes applied by countries in the RIA, the residents of the "higher" rate country are more likely to shop in the "lower" rate country. Such problems are still acute in the European Union. The difference is even sharper in the case of exemption from indirect taxes of specific groups of goods. However, harmonization of tax rates only is not the perfect solution. Harmonization of the overall legislation and basis for taxation together with the tax rates may prove far more efficient. This reallocation of consumption will lead to losses in budget revenues of the "higher" income country. As far as the mechanisms for compensation of such "foregone" budget revenues is practically impossible, harmonization is the only possible solution for avoiding most of the undesirable effects.

3 THE IMPACT OF CEFTA 2006

It should be noted that some of the theoretical implications discussed above are contradictory or overlapping based on the fact that two parallel processes of trade integration are taking place in the region: on one hand it is the free trade between the SEE - 6 countries and on the other the process of further trade liberalization and accession to the European Union. Furthermore, the various implications of regional trade integration are intra-related – i.e. as the case of FDI and taxation.

3.1 CEFTA 2006: FDI, growth and taxation

On the theoretical level one of the most likely results of the operation of CEFTA 2006 will be the decrease in intra-regional FDI as a substitute for increased regional trade. However, this negative effect will be of minor importance, since intra-regional FDI is not substantial by the moment. On the other hand, it could be anticipated that outside FDI will be increased with deepening of the regional integration processes. The countries having the best locational advantages such as

Serbia, Montenegro and Albania due to macroeconomic and political stability will attract the most of FDI inflows. The discussed above recent studies suggest that in the case of South-South integration like CEFTA 2006 for the countries in Southeast Europe, macroeconomic stability will be a more important factor than regional integration itself. As it seems that the political and economic situation in the region will continue to be volatile FDI inflows are not likely to change significantly in the short and medium term.

The discussed ambiguous effects on FDI take into account the establishment of RIA like CEFTA 2006 as a single factor. However, all the countries in the region have engaged in liberalization of trade with the European Union – their largest trade partner. This type of integration (North-South) leads in general to positive FDI inflows in the *Southern* economies. In this way, these slightly negative implications on FDI for SEE-6 countries may be partially or fully compensated. However, the presence of macroeconomic stability will be once again an important factor.

The analyzed empirical studies on the correlation between growth and regional integration of the same type as CEFTA 2006 in Southeast Europe show that no such direct correlation can be found based on the empirical evidence or the effects are rather ambiguous. Once again, the process of increasing trade liberalization between the SEE – 6 countries and the European Union as a separate process should lead to more positive effects in terms of economic growth as compared to the process of regional trade integration by itself. In the countries in Southeast Europe, as well as on world scale, there is a common tendency of the decrease of the corporate tax rates.

The corporate tax and VAT rates for 2015 for SEE-6 countries according to information from KPMG Global (KPMG, 2015) are shown in Table 1.

As it can be seen from the table, the levels of the corporate tax rates for the year 2015 are rather low. This tendency can be explained partly with the growing globalization of the business and implementation of new technologies, the increased exposures, relevant to the investments in the countries of Southeast Europe. As far as the business and the capital are becoming more mobile and the political and economic risk is

substantial, the countries in the region are facing a significant pressure to provide competitive corporate tax rates, which resulted in a minimization of corporate tax rates to very low levels.

Table 1. SEE-6 Tax Systems in 2015

	Corporate Tax Rate	Standard VAT Rate
ALB	15	20
B&H	10	17
KOS	10	16
MAC	10	18
MON	9	19
SER	15	20

The harmonization and coordination of the tax and customs legislation is of specific importance for the successful operation of CEFTA 2006. The maintenance of clear rules, in line with the European requirements in respect to corporate and indirect taxation and control is of substantial importance for securing long-term fiscal stability in the region. On the other hand, there is a significant risk for the SEE - 6 countries if a compatible tax and customs legislation is not present. With the removal of the trade barriers, the differences between the tax legislation become apparent - especially with regard to the VAT and the excise duties. In this way, if there would be significant discrepancies in the applicable VAT and excise duty rates, an unexpected growth of the cross-border trade could be observed, which under equal conditions would lead to a decrease of the budget revenues in the countries, which apply higher rates of indirect taxes. At the same time bigger differences in the corporate rates might have a substantial impact on the decision of the potential investors to prefer a specific country for investment among all other countries in the region.

3.2 Harmonization and FDI in the Region

The problems, related to the re-distribution of the investment flows, from the so-called tax

competition perspective, are a painful topic from a long time even for the countries within the European Union (Commission, 2015). In practice the amount of potential foreign investments from an international perspective and particularly in the SEE region is a rather limited, for the attraction and taxation of which a fierce struggle between the governments of the countries in Southeast Europe is in place. Recent research suggests that “the use of investment incentives focusing on foreign firms, although motivated in some cases from a theoretical point of view, is generally not an efficient way to raise national welfare” (Blomstrom & Kokko, *The Economics of Foreign Direct Investment Incentives*, 2003, p. 1). Regarding the relationship between FDI and corporate tax incentives empirical analysis supports the concept that taxes are important factor if the SEE countries become “close substitutes concerning the location of investment” (Blazic & Vlahinic, 2006, p. 23). Further to the above analysis, it is of primary importance that the countries in the region coordinate properly their tax policies and investment tax incentives. Engagement in tax competition and further downsizing of tax rates and/or tax incentives will lead to substantial budget losses.

It is clear that the economic effects of macroeconomic and fiscal stabilization through tax and customs harmonization as well as improved control can play more significant role in the economic stabilization in the region than regional trade integration alone. However, it should be noted that the outcome of CEFTA 2006 should not be measured by economic indicators only. There are a number of non-economic implications that are important as well and could not be verified by amounts in foreign currency, shares, ratios and percentages.

Based on the above analysis it can be argued that deeper regional integration in Southeast Europe may have significant non-economic implications, which are positive for the long-term development of the region as a whole. It seems that the main argument in favor of the existing RIA between SEE - 6 countries will be the increased security through cooperation. The countries in Southeast Europe “will have to prove their readiness to overcome their mutual turbulent past and to leave it to historians” (Kostovska, 2009, p. 95).

While the economic implications of CEFTA 2006 itself may prove ambiguous especially when compared with the effects of trade liberalization with the European Union, it can be anticipated that the RIA will decrease the level of bureaucracy, smuggling and corruption. At the same time trade liberalization in the region could have a positive impact on institution building, environment and health and protection of intellectual property rights.

4 SEE AGENDA FOR SUSTAINABLE GROWTH

One possible solution for the common problems of the SEE - 6 countries could be the establishment of a roadmap for sustainable growth which could serve as agenda for the governments of the Western Balkans and the EU to stabilize economically the region. This roadmap for sustainable growth could be the next step for achieving deeper regional integration before the countries join the European Union. The roadmap could encompass the following measures for achieving sustainable growth in the region:

- Active support from the international institutions of the aspirations for EU membership of the SEE - 6 countries with accession in the next 5 - 10 years;
- Setting up targets and constant monitoring the levels of budget deficits as well as maintaining macroeconomic stability;
- Coordination of the efforts and identifying ways to increase FDI through improved infrastructure and legal environment;
- Coordination of the reforms in the tax and customs legislation oriented at further harmonization with EU legislation;
- Commitment of the governments to further fiscal consolidation through improved control mechanisms with active measures to limit corruption and bureaucracy;
- Focus of the governments on educational, health and social security reforms focused on integration of minorities and reduction of youth unemployment;

- Strengthening the role of the Regional Cooperation Council and active participations of experts in the working groups monitoring progress and setting the agenda.

Such an ambitious program could be achieved only through the coordinated efforts of the governments of the SEE-6 countries with the support of the EU and international financial institutions. It would be very negative for the long-term economic development of the region if the debates over the migrant crisis or the exit of one or another EU Member State shift the agenda of the EU accession of the SEE - 6 countries in the indefinite future.

It could be argued that the vague prospects of EU membership can change the political and geostrategical orientation of the countries in the region into hardly predictable directions depending on the current interests of blocks outside of the EU thus increasing the uncertainty even to higher levels than the existing ones. Further destabilization of the SEE region can prove to be more costly and detrimental than setting a predictable path of EU membership and integration in front of the SEE-6 countries.

5 CONCLUSIONS

The countries in Southeast Europe can still be considered as small and relatively isolated from an economic point of view. It seems that CEFTA 2006 as a separate effort of regional integration is not likely to have a substantial positive effect on the economic development of the region. Recent strategic theoretical and empirical studies show that the short-term economic implications of regional integration between developing countries are ambiguous. It seems that the main argument in favor of deeper regional integration between SEE -6 countries will be the increased security through cooperation. The harmonization and coordination of the tax and customs legislation is of specific importance for the successful operation of CEFTA 2006.

The maintenance of clear rules, in line with the European requirements regarding corporate and indirect taxation and improved control mechanisms is of substantial importance for securing long-term fiscal stability in the region. An

agenda for sustainable growth of the SEE-6 reforms orientied at the succesful accession of the countries is much needed to stimulate further region in the European Union.

WORKS CITED

- Aurora, V., & Vamvakidis, A. (2004). How Much Do Trading Partners Matter for Economic Growth? *IMF Working Paper, WP/04/26 February*, 4.
- Bhagwati, J. (1988). *Protectionism*. Cambridge, MA: The MIT Press.
- Bhagwati, J., & Hudec, R. E. (1996). *Fair Trade and Harmonization: Prerequisites for Free Trade, Volume 2*. Cambridge, MA: The MIT Press.
- Blazic, H., & Vlahinic, N. (2006). FDI Determinants in Southeast European Countries with Special Reference to Tax Incentives. *Economic Studies Journal* .
- Blomstrom, M., & Kokko, A. (1997). Regional Integration and Foreign Direct Investment: A Conceptual Frmework and Three Cases. *Policy Research Working Paper Series No. 1750*.
- Blomstrom, M., & Kokko, A. (2003). The Economics of Foreign Direct Investment Incentives. *NBER Working Paper Series No. 9489, February*.
- CEFTA. (2015). *CEFTA*. Retrieved from <http://www.cefta.int>
- CIA. (2015). *The World Factbook - CIA*. Retrieved from : <https://www.cia.gov/library/publications/the-world-factbook>
- Commission, E. (2015, 6 17). Retrieved from http://ec.europa.eu/taxation_customs/resources/documents/taxation/company_tax/fairer_corporate_taxation/com_2015_302_en.pdf
- De Bonis, V. (1997). Regional Integration and Commodity Tax Harmonization. *Policy Research Working Paper No. 1848, the World Bank*.
- De Bonis, V. (1997). Regional Integration and Factor Income Taxation. *Policy Research Working Paper No. 1849, The World Bank*.
- De Bonis, V. (2002). Regional Integration and the Co-ordination of Capital Income Taxation. *Economic Notes 31*, 79-108.
- Kostovska, L. (2009). CEFTA-2006 Trade Cooperation. *Third International Conference Regional Cooperation and Economic Integration Challanges and Opportunities*, (pp. 91-100). Skopje.
- KPMG. (2015). *KPMG Global*. Retrieved from <http://www.kpmg.com/Global/en/services/Tax/tax-tools-and-resources/>
- Schiff, M., & Winters, L. A. (2003). *Regional integration and Development*. IBRD/the World Bank.
- Vamvakidis, A. (1998). Regional Integration and Economic Growth. *The World Bank Economic Review Vol. 12, No.2*.

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REASONS AND FACTORS OF THREATS ORIGIN OF ENTERPRISES ECONOMIC SECURITY IN UKRAINE

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Abstract

The most typical key threats of economic security of the Ukrainian enterprises is considered in the article. The considered phenomena and tendencies which take place and actively develop in the economy of Ukraine are considered to be threats of general character that have an influence on economic security of domestic enterprises, in particular, they are unfavourable external environment; difficult conditions of business doing, which are mainly created by the state; high resource intensity of production; considerable part of shadow economy; surplus tax pressure; low economic activity efficiency; inveteracy of fixed assets and technological lag; personnel problems; raiding and illegal actions of criminal structures; branch disproportion that characterized by priority development of raw material sectors of economy; passive investment-innovative activity. Such threats are general for domestic enterprises and exactly they create the general conditions of Ukrainian enterprises economic security providing. It is found out that such factors of economic security threat negatively influence on the process of enterprises' functioning of and on the level of their economic security, form an unfavourable business-climate that restrains development, foremost, middle and small enterprises, which play the important socio-economic function it is country citizens providing by the workplaces and absorption of labour force surpluses.

Keywords: economic security, threats, enterprise development, shadow economy, raiding

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1 INTRODUCTION

The level of economic security of any enterprise mainly depends on external environment favourableness, it means that it depends on business doing conditions, which are mainly



created by the state. Unfortunately, today in the world rating of Doing Business Ukraine occupies a 145 place among 183 countries, perceptibly yielding almost all countries of Central and East Europe by the criterion of business doing favourableness. For time which passed, we could not observe the substantial changes of Ukraine in the world rating of Doing Business.

Low business doing favourableness in Ukraine is predefined by the system influence of considerable row of factors among which it is necessary to mark such as:

- high level of the real inflation, considerable deficit of budget, negative trade balance, dependence on commodities conjuncture on world markets and low population purchasing power, that in an aggregate create an unfavourable situation for business development;
- absence of the unique long-term strategy of development and structural re-erecting of national economy, which would exist in accordance to the modern priorities and do impossible to occupy the acceptable competition position in world economic space;
- non-forecast change and imperfection of normative and legal providing of process of economic activity subjects functioning;
- low efficiency of government control instruments application of economic processes;
- irresponsibility of the state for the results of reforms realization;
- absence of the effective control system for the implementation of norms of current legislation;
- non-completeness of the market directed institutional transformations and lack of development of market infrastructure;
- complication and irrationality of the regulator system, which is expressed in burdensomeness of permission procedures, surplus amount of documents, which are given for the receipt of permissions, imperfection of procedures of supervision, control and termination of economic activity, and others like that.

Every stage of entrepreneurial activity that starts from registration of enterprise and conclusion of commercial agreements to its liquidation is accompanied by considerably greater time

charges in comparison to the developed countries and countries-neighbours. Almost by every index of lightness of business doing in Ukraine the amount of procedures, which are necessary for this purpose, exceeds the indexes of the developed countries and countries-neighbours in 2-4 times. At the same time, ratings positions of business doing in Ukraine in 2015 became better. Ukraine took the 83 place by the level of favourableness of terms of the business doing. A rating leader was Singapore which heads the rating many years. The countries with the most favourable terms of the business doing are New Zealand, Denmark, South Korea, Hong Kong (Special administrative district of China), Great Britain, USA, Sweden, Norway. The worst countries of the entrepreneurial activity conduction in 2015 were South Sudan (187 place), Libya (188) and Eritrean (189).

The low rating of Ukraine is explained by considerable worsening of indexes values such as receipt of building permission (from 139 to 140), defence of investors (from 87 to 88), taxation (from 106 to 107), and also firmness of rating of international trade (109), insolvency problems decision (141), contracts implementation support (98) (EDK, 2015).

According to the estimations of the World economic forum in 2009-2010 by the level of ownership rights defence, including financial assets, Ukraine occupied a 135 place among 139 countries of the world (Schneider, 2010), yielded to the all countries of Central and East Europe, in particular by such criteria as independence of courts, population trust to the courts, political stability, corruption, defence of the ownership right, defence of intellectual ownership, copyrights rights.

All this factors have a negative influence on the process of enterprises functioning and their level of economic security, form an unfavourable business-climate which restrains development, foremost, middle and small enterprises, which plays the important socio-economic function of country citizens providing by workplaces and absorption of labour force surpluses which appear as a result of structural changes in an economy.

The development of small and middle enterprises is the important indicator of efficiency of market

transformations and pre-conditions of progressive structural changes in transformation economies.

2 ASPECTS OF ECONOMIC SECURITY THREATS OF THE UKRAINIAN ENTERPRISES

It is necessary to consider key aspects of economic security threats of the Ukrainian enterprises:

- in an aggregate supply at the internal market the tendency of the permanent diminishing of specific gravity of domestic production commodities is kept, especially commodities of eventual consumption. In particular, in the structure of wholesale circulation specific gravity of sale of domestic production commodities diminished from 70% in 2007 year to 63.6% in 2014 years, in the structure of retail commodity turnover – accordingly, from 70.5 to 64.3%;
- part of domestic non-food products diminishes especially swiftly, in 2014 year it was 61% in the volume of wholesale and 50% in the volume of retail commodity turnover. By some groups of commodities in particular light industry, audio- and video-equipment, computing engineering Ukraine provides only 4-6% necessities due to the own production. At the same time specific gravity of domestic food stuffs is 75.1% in the structure of wholesale and 88.2% in the structure of retail trade, has a tendency to the gradual diminishing;
- during 2009-2014 took place the amount reduction of infrastructure objects of small enterprise support: business-centres (in 2014 year in comparison to 2010 year their amount diminished on 27 units or 5.8%), leasing companies (on 30 units or 3.8%), funds of enterprise support (on 34 units or 12.2%), credit unions (on 162 units or 19.7%), insurance organizations (on 46 units or 9.1%), information and consulting establishments (on 65 units or 2%), audit companies (on 62 units or 4%).

All this certifies substantial influence of unsatisfactory terms of business doing on domestic enterprises economic security and allows to identify them as one of main threats.

Ukrainian and foreign specialists agree the idea, that the economy of Ukraine is characterized by a very high level of GDP power (energy) consumption. This index in Ukraine, according to the estimations of company Enerdata, is one of the greatest among the countries of the world, in particular in 3.8 times higher, then in the countries of EU-27, in 3.2 times – than in nearby Poland, in 1.4 times – than in Russia (Enerdata, 2012).

Summarizing, it is possible to assert that an obvious threat of domestic enterprises economic security is a high energy consumption and resource-demanding of production. It is predefined by the low technological level of production, raw material, materials, fuel and energy resources high prices, absence of effective measures of resources-saving, that partly caused by state passivity in the questions of stimulation of innovative processes, bringing in to the domestic production energy-saving technologies and others like that.

As a substantial threat of domestic enterprises economic security we should also examine a shadow economy. In public consciousness formed interpretation that shadow economy is a especially negative phenomenon. At the same time, it is necessary to acknowledge that a shadow constituent under conditions of transformation economy is an absolutely obvious fact, and its illegality is predefined by the socio-economic institutes weakness.

Shadow economy increase is caused by production decline in the basic kinds of economic activity, low part of labour payment in the structure of charges and fund of labour payment in GDP, preserving of high level poverty of working population, high level of taxation of legal business, including payments to the state social funds, low level of laws observance, as a result, loss of trust to the law-enforcement and judicial systems of the state.

It is also necessary to take into account the fact that a shadow economy exist not only in countries which are on the way of market economy formation but also leaders of the world economic space (Figure. 1) (Enerdata, 2012), although its level, indisputably, differs substantially.

The part of shadow economy in the countries of OECD in pre-crisis, crisis and post-crisis periods had a tendency to diminishing, and in Ukraine – to

negative growth in 2010-2014, all this can be interpreted as a reaction of business on the crisis phenomena in an economy and attempts to continue existence by a transition from legal position to shade. To the reasons of shadow economy origin and existence we can include:

- contradiction and duplication of legislative and normative bases in separate sectors, that reproduces the low level of structural components of index of economic freedom and growth of shadow economy;

- low efficiency of organizational and institutional mechanisms of anticorruption legislation. According to data of international nongovernmental organization of "Transparency International", Index of perception of corruption in Ukraine in 2014 was 2.4 point (in the least corrupted countries such Index of perception of corruption was 9.0-10 in countries with the high level of corruption – less than 3.0) Ukraine rated by the index 134 place in rating among 178 countries of the world;

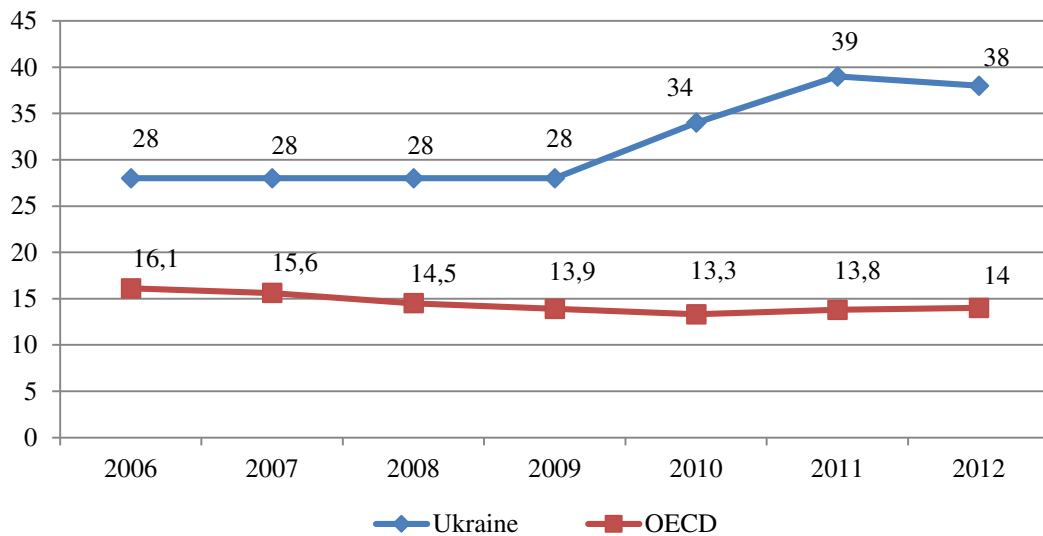


Fig. 1. A volume of shadow economy in Ukraine % GDP (Enerdata, 2012)

- imperfection of the judicial and law-enforcement systems which affects experts' low estimations of the World economic forum of judicial department independence and trust to law enforcement system (Schneider, 2010);
- non-effective taxes administration that confirm ratings estimations (EDK, 2015) in relation to efficiency of taxation;
- high level of criminality, adjusted criminal connections, that form conditions for economic criminality distribution and other illegal activity;
- absence of historical practice of observance of norms and moral standards of law-abiding doing in economic activity, taxes payments by subjects of economic activity and citizens (Mazur, 2006).

Summarizing all this, it is necessary to underline that critically high level of shadow economy has a negative influence on economic security of domestic enterprises, because of inequality of

conditions in which legal business and shadow sector of economy function, negative influence on a competition environment, degradation of the system of state administration and market institutions, that's why shadow economy should be identified as a threat to economic security of domestic enterprises.

- Raiding is peculiar phenomenon to the economy of Ukraine, that's why we also may include it to the economic security threats. According to the reference calculations of analysts, the annual market of confluence and absorptions in Ukraine makes 3 milliard of USA dollars, and 60-70% of this sum is unfriendly absorptions (about 2 milliard of USA dollars). Such volumes of financial resources are a stimulus for members of society who have an inclination to offence to engage such illegal activity (Mykytchyk, 2013).

To the number of the raiding factors specialists in Ukraine include:

- legislation imperfection especially in that its part which sets a responsibility for raiding. In the legislation of Ukraine there is no interpretation neither raiding nor absorption. In Economic Code of Ukraine only is marked such forms of reorganization of legal entity as confluence, joining, division, transformation (Burbelo, Kozachenko, & Pohorelov, 2012, p. 57).
- corruption among members of judicial system, supervisory and law-enforcement organs and agents; in Ukraine operates at least 35-50 specialized raiding groups which consist of skilled lawyers and economists (Belikov, 2007);
- high "profitability" of raiding: the amount of captures arrives to 3000 by a year, effectiveness of raid attacks, – over 90%, an average norm of income of a raider in Ukraine is about 1000% (Mykytchyk, 2013).
- weak mobility of public organs and public to this problem solving, society insufficient awareness of harm which is inflicted by raiding to national interests of Ukraine and its international image.

For the aims achievement raiders apply the receptions of unfair competition, which are usually taken to three basic directions of influence:

- illegal use of business reputation subject of economic activity;
- creation of economic activity obstacles and achievement of illegal advantages in a competition;
- illegal collections, openings and usages of commercial secret (Startsev, 2006, p. 198).

By a scale and consequences of influence in Ukraine raiding capture and illegal activity of criminal structures create the real threat not only for domestic enterprises economic safety but also national safety of Ukraine.

3 CONCLUSION

Considered phenomena and tendencies which take place and actively develop in the economy of

WORKS CITED

Belikov, O. (2007). Rayderstvo v Ukrayini - realiyi s'ohodennya (Raiding in Ukraine - modern realities). *Yuridichnyi zhurnal*(4). Retrieved from <http://www.justinian.com.ua/article.php?id=2638>

Ukraine, should be examined as threats of general character to the economic security of domestic enterprises. Such threats are general for domestic enterprises. But their influence has a different intensity that needs certain arrangement of general character threats to domestic enterprises economic security. Thus, every enterprise has individual threats, but exactly the threats of general character create general conditions of providing of economic security of domestic enterprises.

To our opinion, it's necessary to use such methods of raiding opposition for providing enterprises economic security as:

- a concentration of equity or redemption parts of participants, which do not take part in enterprise activity; the permanent monitoring of shareholders change Yearbook s; restructuring of subsections with the change of their organization and legal status; control shares buying up and additional emission;
- property legal status determination, property overvalue realization;
- non-admission of origin and expiration of account payable;
- management and personnel work improvement (non-admission of conflict situations, illegal dismissal of workers, etc.);
- economic subjects culture increase (transparent competition relations, maintenance of business reputation (goodwill);
- to use public and mass media in a fight against raiding.

Consequently, a certain aggregate of economic security threats of domestic enterprises is a general one, which do not take into account the specifics of functioning of separate subject of entrepreneurial activity, but according to essence majority of them is inherent for domestic enterprises, that's why actualizes importance of domestic enterprises economic security system functioning and management.

- Burbelo, O., Kozachenko, H., & Pohorelov, Y. (2012). *Reyderstvo: vytoky, protsedury, sposoby zapobihannya (Raiding: sources, procedures, attempts to prevent)*. Luhansk: LDUVS.
- EDK. (2015, November 09). *Ukraina v reitynhu Svitivoho Banku lehkosti vedennya biznesu*. Retrieved from Economichniy dyskusiyniy klub: <http://edclub.com.ua/analytika/ukrayina-v-reytyngu-svitovogo-banku-legkosti-vedennya-biznesu-chy-naspravdi-ye-pozytyvni>
- Enerdata. (2012). *Total energy consumption - Historical stagnation in energy consumption*. Retrieved from Global Energy Statistical Yearbook 2015: <https://yearbook.enerdata.net/>
- Mazur, I. (2006). *Detinizatsiya ekonomiky Ukrayiny: teoriya ta praktyka (Shadow Economy of Ukraine: Theory and Practice)*. Kyiv: Publisher center "Kyiv University".
- Mykytchuk, A. (2013). Holovni napryamy zapobihannya reyderstvu v Ukrayini. *Naukovyy visnyk Natsional'noyi akademiyi vnutrishnikh sprav*, 3, 217-222. Retrieved from http://nbuv.gov.ua/UJRN/Nvknuvs_2013_3_30
- Schneider, F. (2010, January 26). *The Influence of the economic crisis on the underground economy in Germany and other OECD-countries in 2010: a (further) increase*. Retrieved from Johannes Kepler University Linz - Department of economics: <http://www.econ.jku.at/members/Schneider/files/publications/LatestResearch2010/ShadEcOECD2010.pdf>
- Startsev, O. V. (2006). *Pidpryyemnyts'ke pravo (Business Law)*. Kyiv: Istyna.

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THE ROLE OF THE LEADER IN THE SUCCESS OF THE CHANGES IN AN ORGANIZATION

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Abstract

Today, in the age of globalization, every organization strives to achieve given objectives in the most efficient and effective way. The rapid pace of change in the business environment, identification of new opportunities and taking quick action is a real challenge for any leader, as a matter of fact, it is a question of the survival of the organization itself. The organizations today are faced with many problems, and one of them is the lack of vision and lack of professionalism in the working. The purpose of this paper is to point out and establish the relationship between the role of the successful leader, his values and how he uses these values in the process of introduction of successful change in the organization. In difficult and decisive moments for an organization, in terms of rapid and unpredictable changes in the organization, there is a need for a leader, a man who can introduce changes in the organization, to organize and manage the transformation of the organization, which will lead to more efficient and effective operations thereof. The efficiency and the performance of the leader represents one of the most important elements in the change process in the organization. The success of the organizational changes depends on the ability of the leader to guide the others in the process of changes, to know how to motivate and timely remove obstacles in the process of changes in the organization. Any mistake in any phase of the process of change is catastrophic, that is why the leaders should be well informed and prepared for what will follow.

Keywords: leadership, managers, change, organization, efficiency

1 INTRODUCTION

Today, the changes are inevitable, rapid and unpredictable, and the leaders are forced to introduce the change and to adapt the organization according to the new trends and developments in the environment.

Organizations continuously are facing the changes, which as a difference in their state of play between two points in time, starting and ending position, require changing of the old norms and values with new ones. By applying the changes, the organization strives to improve its efficiency, its performance and the way individuals and groups work. Effective managers - leaders should recognize the need for changes, expect constant changes and consider such changes as necessary and useful for the organization.

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Today, we see a number of reasons that determine the occurrence of the organizational changes, such as, the external environment manifested by the globalization, changing the role of the market, demographic changes, shifting of the factors and parameters of the organizational structure and others.

In difficult and decisive moments for an organization in terms of rapid and unpredictable changes in the same, there is a need for a leader, a man who can introduce the changes in the organization, to organize and manage the transformation of the organization, which will lead to more efficient and effective operations thereof. Thanks to its features that distinguish him, such as honesty, trust, respect for others and the organization, intelligence, knowledge, experience, etc., the leader can provide a smooth transition from the current state of play of the organization to the desired state of the same. He has the power to influence employees and create trust, respect and confidence and achieve the goals of the organization and applies changes, and therefore build one successful organization. To achieve this, it is necessary for the leader to be familiar with the environment of the organization, especially employees, to know how to communicate, motivate, and above all to know how to behave in certain situations.

The efficiency of the performance of the leader represents one of the most important elements in the process of change in the organization. He is the first person in the organization (leader), as an example for the rest, which helps guide the organization towards the realization of the set goals, and a creator of the relationships in the organization. The success of the organizational changes depends on the ability of the leader to guide the others in the process of changes, and to know how to motivate and timely remove obstacles in the same. Any mistake in any phase of the changes is catastrophic, and that is why the leaders should be well informed and prepared for what will follow.

Leadership is the influence towards the people by setting goals, guidance, motivation and management while working, in order to accomplish the given tasks and goals. A leader knows how to motivate, organize and manage a group of people and lead them towards working

that will have the only purpose of achieving the determined objectives, but he also knows to be responsible and liable for the entire group. Leadership is a cooperative effort fostered by listening, gathering a variety of opinions, considering effective strategies and effectively generating a clear vision.

Leaders are focused on one of the main resources in any organization, the staff. The leaders communicate the vision for change or the vision for the future, motivate people, remove the obstacles in the processes of changes and the process of the operations in the organization, and encourage the involvement of individuals or groups in the processes of changes and achieving the set goals.

There is one wrong theory that leaders are born, not created. But, according to Peter Drucker (Hausladen, 2008): "Leaders are not born; they are grown". It is normal that there are people who are naturally charismatic, visionary and have the ability to impose their personality on others, induce others to follow, but the conclusion that a leader cannot be created is a wrong conclusion. Leadership can be learned and anyone can be a leader. Every organization needs a leader, especially in the process of organizational changes, when the need for a leader is even bigger. Leadership is further challenged by the ability to motivate others, often over a long period of time, and guide others effectively. Peter Drucker (1999) stated, "Management is doing things right; leadership is doing the right things."

Possession of quality characteristics of the leader gives him the power to influence to the attracting of the attention of the group, individuals, organization and beyond, to attract followers, to motivate and mobilize followers towards achieving the vision of the company and implementation of the organizational changes. This characteristic is not just a natural gift; it is a characteristic that can be learned over time. The leader should have a value system built on permanent values, in fact, precisely that build system of permanent values separates the leader from the other people in the organization and allows him to rise above the rest, to lead and to make a positive impact on the others in the process of achieving goals in the organization. The literal definition of leadership is "the behavior of an individual when he is directing

the activities of a group with a focus on a shared goal.” Although there are thousands of documented definitions of what leadership is, essentially it always incorporates the ability to influence individuals with the objective of achieving an intended goal. Leadership depends on minimizing the risk to ensure that the trust factor is solid. As a leader, the ability to maintain high levels of trust comes through consistent actions, honesty, expertise, confidence, and clarity.

What is it that sets the leader apart from the other people in the organization? A successful leader has many positive features. Successful leaders are intelligent enough to understand the needs of others, know the necessity of commitment, be energetic, possess the courage of persuasion, and have an innate integrity.

The employees have great respect for the leader, because of the characteristics that he possesses, such as:

- visionary,
- honesty,
- inspiring,
- effective,
- fair,
- communicative,
- courage etc.

The given features guarantee that a leader will be successful if he possesses them more or less, but the success of a leader depends on the situation in which he acts. The success in the implementation of the organizational changes, interpersonal skills, the personal capacity and focusing on the results which are the basis for the realization of the objectives of the organization and implementation of the vision, are personal characteristics of a successful leader.

2 PERSONAL CHARACTERISTICS OF THE LEADER

Possession of quality characteristics gives the leader the power to influence to the attracting of the attention of the group, individuals, organization and beyond, to attract followers, to motivate and mobilize them toward achieving the vision and implementation of organizational changes. It is not just a natural gift, and it can be learned over time, as it was explained in (Ristic & Cekerevac, 2012). Every leader should have built-in value system

with lasting values, in fact, precisely, this system of permanent values separates the leader from the other people in the organization and enables him to rise above the rest, to lead and to make a positive impact on others in achieving the goals set. The true task of leadership involves the ability to make all changes happen. About young professionals' leadership skills, it is discussed in (Kiteva Rogleva, Gegovska-Zajkova, & Fustik, 2014).

Numerous studies show that some features of leadership, more or less, are repeated and these characteristics represent the features of a successful leader. These common characteristics include intelligence, initiative, and persistence in problem solving, motivating others, need for highlighting, accepting responsibility etc. Exactly these features enable the leader to introduce successful changes in the organization. Although many studies have been done on what makes a leader successful and effective, there appears to be no guaranteed consensus. During the time, outstanding leaders become a fine balance between traits, abilities, behaviors, sources of power, and aspects of the situation. Leaders become the determining factors of the ability to influence followers and accomplish group objectives. Leaders also need the confidence to build self-esteem in others and still maintain a strong degree of integrity in themselves. One leader must be able to gain the approval of everyone involved in order to make an idea reality. The ability to develop cooperative relations, to be a team player and to create an atmosphere that supports a high degree of collegiality, marks the true leader.

The most effective measure of a leader and his/her competency is the extent to which the group attains its goals. It is easy to see why Stephan Covey, author of *The 7 Habits of Highly Effective People*, said: “Begin with the end in mind.” Formulate an idea and then work through the details to commit every thought, feeling, and emotion knowing that you can portray it with confidence and honesty. It incorporates attitudes, values and a mindset that can facilitate commitment and transformation. Leadership begins by developing a vision, a desire or picture of how an organization will look in the future. Often it represents an idea or dream of what might be or could be. It's the classic "If only..." statement. A

leader is capable of taking this "if only..." and bringing it to life. In reality, a vision denotes the "what" and the leader represents the "how" or the elements of what needs to be done to achieve the vision.

Effective leadership begins with the fundamental ability to believe in yourself. The leaders believe in people, are sensitive to other's needs and appreciate a person's core values. The leader will actively remake a challenge to yield productive outcomes by creating an organization that develops and fosters success. Although often debated, leadership characteristics can be learned skills that with encouragement and reinforcement can produce outstanding individuals. The leaders are disciplined thinkers and confidently trust their intuition, they have a vision, confidence to adopt the role of instilling motivation, self-esteem, and teamwork. Leaders understand fully their environment and can transform situations to attain an established vision. People expect leaders to speak out on matters of values and conscience. But to speak out, you have to know what to speak about. First, find your voice. Second, affirm shared values (Kouzes & Posner, 2012).

Table 1: Characteristics and skills of a leader

Characteristics and skills of a leader	
Features	Skills
<ul style="list-style-type: none"> - openness, - communication, - determination, - reliable, - energetic, - persistent, - resistant to stress, - adapted to situations, - responsible, - efficient, - fair and more. 	<ul style="list-style-type: none"> - creative, - professional, - possesses - organizational skills, - communication, - expertise, - power to persuade, - intelligence and others.

Stogdill (1974) presented the research in the field of leadership and confirmed that there are certain features that distinguish the leader from the rest. Characteristics and skills that any leader has, and that highlight from the others, Stogdill presents in Table 1.

What separates the leader from the other people in the organization? A successful leader has many positive features. The staff have great respect for the leader, because of the characteristics that he owns, which are mutual for all successful leaders, such as:

- **Visionary** - The leader looks into the future and has a clear vision for the organization. He has a vision and goals and creates a team that will accomplish goals.
- **Honesty** - Honesty is always on the top of the list of leadership characteristics. A leader knows that employees want to follow someone with integrity and honest character. Employees want to know that they are led by someone with strong character and that they can trust the leader when he is making difficult choices. Honesty is appreciated by all. Leaders must have vision, passion, respect, charisma, communication skills, but without real sincerity and without strict adherence to its principles, he can quickly lose the trust of the staff.
- **Inspiring** - The leader uses inspiration to motivate others to see the vision of the organization. He must have a vision and to know how to communicate the same with the others in the organization. A loyalty towards an organization requires motivation by the one who leads it. The leader is the person who encourages and inspires the employees, and he is the one who should enable the employees to feel comfortable and good, either as employees and as people.
- **Efficient** - Employees like a leader who is efficient and effective, and above all a leader who shows knowledge. He must know how to solve problematic situations. A great leader must see things from several different angles before taking any decision.
- **Fair** - From the leader it is expected to be fair and to make any decision in a way that will be respected by others. Fair leader respects both sides of the work and develops a policy that will be perceived by the rest of the organization.
- **Communicative** - The leader is a person who based on communication skills builds confidence among employees. He knows how to share his knowledge with others, to build

- confidence and create a working atmosphere in the organization.
- **Courage** – From the leaders is expected to show courage and take a risk, to take care of customers, and above all for the employees and for the organization. Bravely to look to the

future and not be afraid to take every given opportunity for advancement of the organization and the employees. He must be innovative and offer new solutions to exit from the newly created crisis.

Table 2: Differences between leaders and managers

Differences between leaders and managers	
Leader	Manager
<ul style="list-style-type: none"> - Builds relationship and trust - Strategic orientation - Provide direction - Provides guidance and counsel - Creates an environment for change - Questions rules and regulations - Motivates and inspires - Works follow their example - Trains and teaches 	<ul style="list-style-type: none"> - Maintains control and order - Follows rules and regulations - Technical orientation - Follow orders - Planning - Organizing and staffing - Controlling and solves problems

A manager does not necessarily equal a leader. The biggest differentiator between managers and leaders is how they motivate their employees to take an action. Managers are more focused on short-term goals or objectives, they motivate through a command, leaders focus on long-term goals, and they inspire, motivate and are focused on the greater mission. Leaders can combine the change with growth, take risks and demonstrate problem-solving abilities. The leader must have a significant energy level, physical stamina, and stress tolerance. Leadership requires the ability to solve problems and draw out those to creatively resolve issues along the way. The leader needs to be flexible with ideas and open to a variety of solutions and viewpoints.

A leader must be able to transform his vision into a more inclusive position by gaining the trust and commitment of those needed to fulfill his objective. The success of a leader depends on his ability to achieve a goal through the actions of those involved. It takes the commitment of others in the organization to implement a leader's vision and goals. The society and the organizations must have effective leadership in order to successfully achieve their objectives. Trust is indirectly proportional to risk. To increase trust, leaders

must decrease risk. The employees in one organization must have the trust in their leader.

According to Raymond Cattell, a pioneer in the field of personality assessment, who has developed the Leadership Potential Equation in 1954, the effective leaders have those basic attributes or characteristics:

- Emotional stability – The leaders must be able to tolerate frustration and stress.
- Dominance – Leaders are often competitive and decisive and usually enjoy overcoming obstacles.
- Enthusiasm – Leaders are usually seen as active, expressive and energetic.
- Conscientiousness – Leaders are often dominated by a sense of duty and tend to be very exacting in character. They usually have very high standard of excellence and an inward desire to be the best.
- Social boldness – Leaders tend to be spontaneous risk-takers.
- Tough-mindedness – Good leaders are practical, logical and to-the-point.
- Self-assurance – Self-confidence and resiliency are common attributes among leaders. They tend to be free of guilt and have little or no need for approval.

- High energy – long hours and travel are usually a prerequisite for leadership positions, especially as the company grows.
- Intuitiveness – rapid changes in the world today combined with information overload result in an inability to “know” everything. The leaders must trust their “gut” when they are making decisions.
- Maturity – to be a good leader, personal power and recognition must be secondary to the development of the employees.
- Team orientation – Business leaders today put a strong emphasis on teamwork.
- Empathy – Being able to “put yourself in the other person’s shoes” is a key attribute of leaders today.
- Charisma – Leaders who have charisma are able to arouse strong emotions in their employees by defining a vision which unites.
- Compulsiveness – Leaders were found to be controlled and very precise in their social interactions. (AU, n.d.)

3 RESISTANCE TO THE ORGANIZATIONAL CHANGES

Every successful and experienced leader knows that the change process is always accompanied by resistance to the same. The fear of the new situation causes resistance to new organizational changes among the employees. The fear of the new, the unexpected, the fear of losing positions or general fear of change is a major obstacle to the implementation of changes. The leaders of the changes need to take into consideration the resistance and create mechanisms and appropriate strategies to lower or completely eliminate it, allowing an uninterrupted flow of the changes.

There are a great number of factors that create resistance: Economic factors, job security, image, prestige and reputation, threat for the comfort, misunderstanding of the initiator of the change, distrust in the organizational change, fear of the unknown, threat to the power of organizational and individual level, the habits etc.

To avoid these situations, the leader of organizational changes should have his own strategies to deal with the resistance towards the organizational change.

4 THE ROLE OF THE LEADER IN THE ELIMINATION OF THE RESISTANCE AND IN THE SUCCESSFUL INTRODUCTION OF CHANGES

The role of every successful leader is to undertake appropriate steps to reduce the resistance to the organizational change, and by this reduction or removal allow the change process to run continuously and to achieve the desired objectives. A leader takes care that the changes are accepted by the employees in the organization. Every leader knows that any change must not be taken if it is not connected with the increase of the efficiency and effectiveness of the operating of the organization, and all of that, should not have a huge influence on the operation of the company.

Before any change in the organization, the leader needs to create a vision and strategy for the future guidelines to be taken by him, to make good preparations, to avoid surprises, and to create an atmosphere for the changes. The leader should undertake the following activities in order to reduce the organizational changes:

- to create conditions for implementation of the changes,
- support and understanding of the changes,
- working teams for implementation of the changes,
- communicate the vision for change etc.

One of the approaches towards solving of the resistance to the change is that there is a need to get an answer the following three questions:

1. Why are changes needed?
2. What to change? and
3. How to initiate the change? (Postolov, p. 55)

As a way of reducing the resistance to the change, the leader includes employees in creating a vision and strategy for the desired goals, and thus the trust between the leader and the employees is on a high level.

In order to implement the changes and accomplish the purpose of the same, the leader has to inform the employees about the process of changes and what impact the changes will have on them and the environment where they work or what they will gain and lose with the changes. An effective

leader knows that only with good communication the changes can be initiated, that is one-way communication (top-down) has to be avoided or in the worst case to hide information from the employees. Only with trust and good communication which should be continued and supported by relevant information in all directions, the goals of the organization can be achieved.

The successful leader creates a team that will move the process of change towards the goal. Creates new allies inside and outside the organization, and he is thinking globally and not locally.

5 CONCLUSION

Successful leaders in the organizations are surrounded by successful people and successful working teams, know how to lead and motivate, and above all have the ability to encourage changes in the right time when it is needed. The success of the organizational change depends on many features that the leader who is leading the process of change should have. To manage a change, the leader needs to ensure that the organization is ready or rather that employees are willing to join and embrace the change. A strategy for change is needed to be prepared, how, when and why changes are needed. With well-prepared vision, with clear targets and tasks to prepare the organization for the new process of transformation from a state that no longer functions in the new desired state the process of the changes will be successful.

The leader needs to know how and when to inform employees about the process that has to be accepted by them, and the employees themselves should help and involve themselves in the process to achieve the targeted goals. Without the support of the employees, the process of change will be doomed to the precipice at the beginning. In favor to the achievement of successful change the communication between the leader and employees should be on a high level in all directions. The leader must know how to communicate because only with good communication the leader can motivate employees in reaching the goals. Employees respect the honest leader, and this is why the communication should be sincere and with clear messages. Informing the employees of each

phase of the change allows to avoiding any surprise and creation of any obstacle in the way of the introduction of the organizational change.

The development of management today allows managers to apply various skills and methods in managing the organizations. Possession of knowledge by managers - leaders increases the possibility of successful implementation of change and the removal of the resistance towards the same. According to Perry Smith, the leader should be a good teacher. The teaching of the others to work and achieve higher performance in the operation is only one of the characteristics of a successful leader. He is not afraid to share his knowledge and information with others, guides them and teaches them how to work and thus motivate them in their work.

The successful leader knows that in order to succeed he has to motivate the others, to be creative and open to all. Motivation is a key factor in the change process. Only with well-motivated people, a leader indulges into the organizational change. He uses a variety of methods and techniques of motivation in any situation and thus keeps employees' morale high in the difficult and decisive moments not only for the organization but also for them.

The organizational changes are needed for any organization that is looking in the future, they are permanent and decisive for the success of the organization. Their introduction in the organization is not a process without end. Each process has its beginning, the process of change and the end (achieving the objectives). But if the changes are introduced in the organization, this does not mean that the leadership and the employees can rest and turn away their attention out of changes. It often occurs that after the introduction of changes, employees slowly return to the old way of working. The leader cannot allow a situation like this, so he must control and institutionalize the change and does not allow the return to the old situation. Following the introduction of the organizational changes, the leader knows that the same must also be celebrated. Celebrating and rewarding the employees is necessary because of the possibility in the future to easier introduce new changes.

In times of globalization changes are quick and virtually unpredictable so that an organization cannot be static and firmly stick to the past, but

with the help of the changes to provide itself clearer and more secure future. The role of the leader is to recognize the signs or rather threats to the organization in the right time and to convert the same into possibilities or changes for the organization, and in this way create the possibility the organization to come out of the current situation and go boldly towards the goals. Successful and good prepared leader leads the organization with a vision and clearly defined objectives, with courageous steps towards those objectives. As a true leader, he is responsible for the errors that occur during the process of change and does not allow the same to negatively affect the organization. He knows that a major mistake

at any stage of the process of change is catastrophic for the same and therefore the leader controls, gives and receives the information from the employees, which allows changes to flow without any problems and the obstacles or threats to be promptly disposed of.

Changes are always followed by the resistance to the same from the employees who have a fear of the new working situations. In these key moments, the focus is put on the characteristics of the leader to firmly stand behind the changes and to lead the organization together with its employees to the accomplishment of the goals set.

WORKS CITED

- AU. (n.d.). *Leadership Traits - Small Business Administration*. Retrieved 04 25, 2016, from The Air University: <http://www.au.af.mil/au/awc/awcgate/sba/traits.htm>
- Drucker, P. (1999). *Management's New Paradigms, Management Challenges for the 21st Century*. New York.
- Hausladen, R. J. (2008, Sep.). *Leaders are not born; They Are Grown*. Retrieved from New Horizons: http://www.newhorizonspcs.com/leaders_are_not_born_they_are_grown.html
- Kiteva Rogleva, N., Gegovska-Zajkova, S., & Fustik, V. (2014, 07 15). Leadership skills of the young professionals in industry and other institutions - a case study for master students. (Z. Čekerevac, Ed.) *MEST Journal*, 2(2), 86-94. doi:10.12709/mest.02.02.02.09
- Kouzes, J. M., & Posner, B. Z. (2012). *The Leadership Challenge* (Fourth ed.). San Francisco, USA: Jossey-Bass.
- Postolov, C. (n.d.). *Managing the organizational change - A factor for improving the competitiveness of the Macedonian economy*.
- Ristic, S., & Cekerevac, Z. (2012). Development of leadership competence and self-improvement of the leaders. *Komunikacije (Communications)*(2), 76-81. Retrieved from http://www.cekerevac.eu/biblioteka/ij_19.pdf
- Stogdill, R. M. (1974). *Handbook of Leadership: A Survey of Theory and Research*. Free Press.

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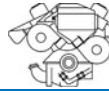
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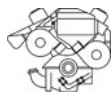
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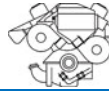
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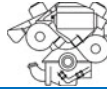
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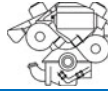
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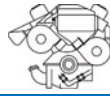




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