

Varazdin Development and Entrepreneurship Agency
in cooperation with
University North and Megatrend University

Economic and Social Development

5th Eastern European Economic and Social Development Conference
on Social Responsibility

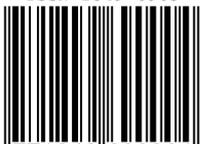


Editors:

Ana Jovancai Stakic, Vladimir Kovsca and Jadranka Bendekovic

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RISK MANAGEMENT IN EASTERN EUROPE – DIFFERENCES BETWEEN THE APPROACH OF LOCALS AND EXPATRIATES

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ABSTRACT

This research paper deals with the knowledge about risk management. In particular, it examines employee's knowledge about handling risks. As part of his Ph.D. studies, the author conducted a survey among personnel working in the construction business. In the survey, participants from two different Eastern European Countries took part and were compared to each other. Research methodology is based on a standardized questionnaire, which has been utilized to test participants' knowledge in terms of risk management. Respondents from Hungary and Romania have been compared in order to find out the influence of the variable "Country of work" on people's know-how and skills. In a second step data was analyzed with statistical methods, such as standard deviation or correlation of different variables. As the first main result there seems to exist a connection between the knowledge about risk management on the one hand and the country of work on the other hand. Results indicate that knowledge among Hungarian respondents is stronger than among Romanian participants. The second main result refers to the group of expatriates. The survey has shown that the expatriates are a group of employees who must be considered separately. They act very proactively and have a very high knowledge about risk management. After a short introduction, the paper describes the circumstances of the survey, the way of analyzing data and finally illuminates the results in particular.

Keywords: *Risk, Risk Management, Knowledge, Statistical Data Analysis, Construction Industry*

1. INTRODUCTION

Crisis situations do not happen from one day to the next. There are signals that point to them and risks pose only the last phase of a long process. The question of why some companies fail to foresee their economic troubles is a legitimated one. Did they recognize the changes that took place in the company's environment but their decision-makers failed to see the significance? Or was the management not prepared to properly handle the situation? It is often not the executive of the company, but rather a member of staff, standing at the bottom of the corporate hierarchy, that first encounters the risk factor and attempts to manage it. However, these persons cannot be expected to have risk management skills and knowledge. They often do not have theoretical knowledge and sometimes even their practical experience is lacking.

The knowledge of business companies' staff about risk management is influenced by several variables, with the influence being of different levels. It is therefore not equal for all employees. For a company it may be advantageous to know these variables in order to find a suitable employee for each task or to entrust each employee with such tasks that they can solve for sure. By deliberately changing some variables, the company has the opportunity to improve risk management. It is therefore worth to research about the influence of different variables on the knowledge of employees.

2. LITERATURE REVIEW

Precondition for dealing with risks is at first an understanding of what the term risk means at all. In the general perception, risk has a negative connotation. Several authors connect risk with a target hazard risk or the deviation from a pre-determined target. Neubürger (1989) defines risk as *"positive difference between the expected and actual target achievement."* Accordingly, a chance means the negative difference between the expected and the realized level of target achievement. However, another definition of risk shall be mentioned, which was worked out by Ehrmann (2005). His explanation is even suitable to be used as valid for the scope of this chapter as definition of the term risk. According to the author risks are:

- connected to decisions,
- originate from the uncertainty relating to the assumptions during decision-making,
- mean a danger or hazard.

In addition to the term risk, risk management must be illuminated as well. According to Eichler and Bungartz (2004) there is a very comprehensive, but at the same time also very compact definition of the process of risk management, which, for reasons of comprehensiveness and conciseness appears to be suitable to determine the process of risk management for the scope of this article: *"Enterprise-wide risk management is understood as the process of strategy formulation, the enterprise-wide identification of significant risks and opportunities, managing these risks, taking into account the risk appetite of the company, to ensure the achievement of corporate goals, done by the supervisory board, the upper management, the operational management and the employees."* Haller (1986) places significant risks in the center of his definition of risk management, which is oriented in his view to:

- In all management activities and in all aspects of leadership to recognize and assess the significant risk better,
- To tackle as important considered risks with suitable instruments and procedures,
- To pull general leadership and organizational consequences in terms of risk management.

3. THE RESEARCHED QUESTION

In the center of this paper is a comparison of two eastern European countries with regard to their employees in the construction industry. To be found out is the influence of this variable on the knowledge of the employees. The research is carried out in two different countries, so it lends itself to check whether the results differ depending on the country. Subject of the research are the countries Hungary and Romania, both of which were formerly part of the Eastern European bloc. Of course, there are differences between these two countries, but the knowledge of the employees is in the foreground. Since the activities of employees are the same in these countries and construction projects are handled in a similar manner, it could be assumed that the knowledge of the employees about risk management is not significantly different compared to each other. Accordingly, during the research process initially it was assumed that there is no correlation between the country of work and the knowledge about risk management.

Hypothesis: Knowledge of risk management on the one hand and the country of labor exercise on the other hand are two independent variables.

4. THE RESEARCH METHOD

Data-collection by questionnaire is a very common instrument of scientific research and offers several advantages. On the one hand, a large number of people can easily be interviewed and on the other hand the information obtained can be statistically analyzed and conclusions with respect to the research subject can be drawn. To achieve this goal, the use of a standardized questionnaire is recommended, in which all questions are formulated uniformly and the answer choices are already predetermined. For a detailed review of the hypothesis, a part of the questionnaire contained questions with the help of which the participants' knowledge could be measured. Through the classification of respondents to groups of attributes, in this particular case the countries of work, and the statistical analysis of the responses of these groups, inferences are to be drawn on the impact of the variable.

In total 48 participants from Hungary and 37 participants from Romania completed the questionnaire. The proportion of both countries is almost of the same size and therefore may be compared easily. Expatriates, employees who, due to a letter of assignment, carry out their duties outside their home country, formed a separate group. Their group is very small, but is listed separately because of their special status. The expatriates taking part in the survey came from Austria and Germany. The distribution of respondents can be found in *Table 1*:

*Table 1: Distribution of the variable „Country of Work“,
Source: author's own work*

Country of Work	Frequency	Percent %
Hungary	48	51.1
Romania	37	39.4
Expatriates	9	9.6
Total	94	100.0

The survey was conducted in spring 2011. All persons participating in the survey were at the time of the survey employees of various construction companies. Respondents were working on construction projects, in the administration of their companies or in executive positions. In the interest of the fact that the results of the survey can be obtained from a wide amount of data, the survey was conducted in different countries: Hungary and Romania. In order to facilitate the respondents in the various countries responding to the questionnaire, it was created in different languages, so that each participant could complete the questionnaire in their own native language. This measure also increases the reliability of the results, since such errors can be excluded, which arise due to any misunderstandings.

In order to limit the effort to evaluate all questionnaires differently, it appeared advisable to have the questions answered in multiple-choice system. Through this approach, space for individual answers to the questions was given and the questionnaire could still be standardized and then analyzed by statistical means. In order to explore the knowledge of the employees interviewed about risk management, the questionnaire was divided into three blocks, each containing eight assertions. The first block contained general statements with regard to risk management, in the second block statements about the company, for which the respondents work, were listed. Assertions about the handling of risks especially on construction projects formed the third group. Taking into account the advises of Babbie (2003) for structuring a questionnaire, the questionnaire was divided into the following parts:

a) Knowledge about risk management

- Questions about risk management in general (8 questions)
- Questions about risk management in business companies (8 questions)
- Questions about risk management on construction projects (8 questions)

b) Questions regarding personal data (4 questions)

Every question appeared in the form of a "right or wrong" statement, which was to be answered by the respondents. If the respondent did not know the right solution, they could also check the response "I'm not sure", meaning that questions were only answered, if the respondent knew the answer. Of course, there was only one correct answer for each question. Half of the assertions in each block was right, the other half was wrong. During the process of analysis every correctly answered question was awarded with one point, the answer "I'm not sure" was considered wrong. Through different distributions of correct and incorrect responses within the three blocks, conclusions could be drawn about the intensity of the knowledge of employees in the three areas of risk management. Among the completed questionnaires there were also such that were not filled completely or partly faulty. Regardless of unanswered questions, however, these questionnaires are part of the evaluation, only the non-responses were disregarded. In order not to distort the results, the missing data has not been replaced by average values or incorporated in the analysis by using any other different method.

To process the large number of resulting data on a professional level and be able to analyze it using statistical tools, the evaluation of the data set was operated with the help of *SPSS Statistics*, a software by the U.S. company IBM. According to Hunyadi et al. (2000) "*The SPSS software package was developed in the interest of enabling a very flexible and effective computer-based implementation of social-scientific analysis.*" Most of the evaluations were carried out by the method of analysis of variance (ANOVA = ANalysis Of VAriance), which analyses the effect of independent variables on dependent variables. The method is based on the calculation of variances and according to Hajdu (2003) has the advantage that "*the variance usually not separately, but in the implementation of comparisons makes sense*", so it is suitable, for example, for testing hypotheses.

5. RESULTS AND DISCUSSION

First, it is worthwhile to consider the answers as a whole. Already the two extreme values are interesting. The achieved minimum score is zero, so at least one of the respondents has not given a single correct answer. The maximum score however is 20 correct answers. This means that out of the theoretically possible 24 points, the participant with the most correct answers just was able to answer 83.3% of the questions correctly. These two extreme values, which were determined from all questionnaires, generate the first impression that the knowledge of the respondents can be further improved. This impression is enhanced when one considers the average values. All respondents answered on average 11.6 questions correctly. From a number of 24 questions, this value is even slightly below the threshold of 50%. This value is backed up by the standard deviation. The standard deviation or variance according to Hunyadi et al. (2000) "*is the average square of the deviations from the average. Accordingly, it indicates by how much the measured values deviate from the average arithmetical average. The unit is always the same as that of the original data.*" Standard deviation was 4 correct answers, which means that the respondents answered on average between 7.6 (31.7%) and 15.6 (65.0%) of 24 questions correctly. As shown in *Table 2*, the participants, on average, had only

so much knowledge about risk management that they could answer only about half of all questions with a standard deviation of four correct answers.

*Table 2: Statistical figures regarding the knowledge about risk management,
Source: author's own work*

Correctly answered questions	N
Minimum	0.00
Maximum	20.00
Mean	11.6054
Standard Deviation	3.9824

In the next step, the relationship between the country, in which the respondents works, and their knowledge about risk management was studied. The hypothesis initially assumed that these are two independent variables. However, the results of the survey have not confirmed the hypothesis. In all cases, a connection between the country of work and the knowledge about risk management exists. The knowledge is the highest with the seconded employees. They answered on average 13.5 questions correctly, which corresponds to slightly more than 56%. This is followed with already two and a half points distance by the Hungarian staff, who could on average answer 11.0 questions correctly, which is still almost half of the possible points. The Romanian employees are cut off in fourth place, with an average of 9.6 correct answers they reached only a quota of 40%. The detailed results are shown in *Table 3*.

*Table 3: Mean and standard deviation depending on „Country of Work“,
Source: author's own work*

Country of Work	N	Mean	Standard Deviation
Expatriates	9	13.50	4.0838
Hungary	48	11.00	4.3621
Romania	37	9.58	4.1058

This finding is supported by the results regarding the knowledge in the three blocks. Again, the expatriates reached the highest results of all, except for one block. Furthermore, in each block, the results in Hungary are higher than those in Romania. The detailed numbers can be found in *Table 4*.

*Table 4: Results in the three blocks of knowledge depending on „Country of Work“,
Source: author's own work*

Country of Work	General Knowledge	Company Knowledge	Constr. Knowledge
Expatriates	3.22	3.25	6.44
Hungary	3.23	2.51	5.26
Romania	2.97	1.97	4.61

As part of the analysis it was also tested whether links to other variables exist. In case of two groups, according to Hunyadi et al. (2000) the Mann-Whitney test is used. For comparing at least three samples to each other, the Kruskal-Wallis test can be utilized. Both work as a non-parametric statistical test that do not assume a given probability distribution and examine differences in the median of each group. The chi-square provides information on the distribution of the values, dF on the degree of freedom and the significance level on the probability of error. Only such links are shown below in which the significance level has a maximum of 5%. Subsequently, the groups can be compared to each other based on the respective group average (mean rank).

*Table 5: „Country of Work“: Interdependencies with other variables,
Source: author's own work*

Kruskal Wallis Test	Know- ledge about risk manage- ment	Question 20 I think a briefing or training would be useful.	Question 25 The regulation s are known.	Question 30 It is difficult to know all the regulation s because they are accessible in different places.	Question 34 I make many decisions to the best of know- ledge because there is no regulation .	Question 35 I limit myself to report identified risks, without instructio n I do not do anything against it.
Chi-Square	16.0158	12.3577	10.4430	13.1249	14.6673	19.4812
df	3	3	3	3	3	3
Asymp.	0.001	0.006	0.015	0.004	0.002	0.000
Expatriates	117.25	121.83	86.78	118.89	147.22	58.83
Hungary	85.90	110.77	94.15	100.04	117.66	129.72
Romania	63.37	124.55	81.12	71.95	85.86	92.24

The review with the Kruskal-Wallis test delivered interesting insight into relationships of the variable country of work with other influence factors. Thus, it could be an explanation for the low performance of the Romanian respondents that the rules on risk management are the least known among them. At the same time, they are the group in which most respondents agree that a briefing or a training would be useful. The second group, which stated that a briefing or a training would be useful, are the expatriates. This is an interesting finding, because with them the knowledge about risk management is the highest. At the same time, their awareness of the regulations is low, because, according to the respondents, they are partially disordered and difficult to find. In case of the expatriates, the proportion of decisions that are made to the best of knowledge but not necessarily under application of a rule is the highest. Also on highest level is the proactive course of action that is not limited to the reporting of risks, but also includes handling them without being asked. The survey has thus shown that the expatriates are a group of employees who act very proactively and have a very high

knowledge, but this is more based on experiences and less on applying rules. The regulations are not always known and there is a need for help with tools. Detailed results are shown in *Table 5*.

Interesting insights into the relationship between different variables can be obtained through calculation of correlation of the variables. Hunyadi et al. (2000) state, that "*... it must be out-raised that neither the results of the correlation nor the regression analysis can be automatically interpreted as a causal relationship. Both methods give information only about the presence, intensity and direction of the connection of two variables.*" Correlation may be positive, then the variables move in the same direction, or it can be negative, then the variables move in opposite direction. A value close to zero indicates that there is no correlation, a value close to 1 or -1 indicates a very strong correlation. Taking these conditions as given it has been examined whether correlation occurs between the following criteria:

- Knowledge about risk management in general
- Knowledge about risk management in business companies
- Knowledge about risk management on construction projects
- Knowledge about risk management in total
- Country of work

The values obtained can be divided into five groups, according to their size and the size of the confidence interval, which describes the accuracy of the calculation:

- No or little correlation (values up to ± 0.14)
- Significant correlation with a confidence interval of 5% (Values from ± 0.14 to ± 0.185)
- Significant correlation with a confidence interval of 1%, with values that are too small to derive theoretical relationships (Values from ± 0.185 to ± 0.4)
- Significant correlation with a confidence interval of 1%, with values that are large enough to derive theoretical relationships, the contents of the correlation is, however, not definable (Values > 0.4 or < -0.4)
- Significant correlation with a confidence interval of 1%, with values that are large enough to derive theoretical relationships and the contents of the correlation is definable (Values > 0.4 or < -0.4)

The study therefore assumes that several conditions must be met in order to recognize a relationship between two variables. With a confidence interval of 1%, a value of 0.4 or higher must be achieved. Only in case of the completion of both criteria one can assume that both in terms of the size of the confidence interval, as well as in the level of correlation sufficient security is given in order to define the content of the correlation in a meaningful way. Out of these, however, the contents of the correlation could be defined only for a total of 6 values, which means that a sense of connection between the two variables can be established. Half of them included the variable country of work:

- There is correlation between the country of work and the knowledge about risk management on construction projects (Value: 0.833)
- There is correlation between the country of work and the knowledge about risk management in business companies (Value: 0.755)
- There is correlation between the country of work and the awareness of the regulations regarding risk management (Value: 0.423)

6. CONCLUSION

The employees' knowledge about risk management is influenced by several variables. Depending on the variable, this influence turns out differently. The influence of variables on employees' knowledge could be explored with the help of the questionnaire. The total of all respondents has been divided into subgroups, depending on in which country they exercise their working activity. Subsequently it could then be researched whether the dependent variable, the knowledge of respondents, performs significant differences in the various groups. This was possible because the standardized survey was carried out in different countries: in Hungary and Romania. In the course of the survey, these countries were supplemented with the category of expatriates, respondents who fulfil their work outside their home country and therefore cannot be clearly assigned to one country. The results of the survey have not confirmed the hypothesis. In all cases, a connection between the country of the work and the respondents' knowledge about risk management was found.

The knowledge was the highest with the seconded employees. They were able to answer correctly on average slightly more than 56% of the questions. The Hungarian participants reached with 46% correct answers given, after all, still almost half of the possible points. The respondents from Romania were slightly cut off in the fourth place, they reached an average rate of 40%. This finding was supported by the results in the three blocks of knowledge. Here, too, with one exception, the expatriates reached the highest results of all. Furthermore, the results for each block in Hungary were higher than those in Romania.

Through the statistical analysis, further findings could still be detected. Among the Romanian respondents, the regulations on risk management were the least well known. At the same time, they were the group, which stated mostly that a briefing or a training would be useful. The second group, which agrees that a briefing or a training would be useful, were the expatriates. This is an interesting finding, because with them the knowledge about risk management was the highest. At the same time, the awareness of the regulations was low. For expatriates, the proportion of decisions that are made to the best of knowledge but not necessarily under application of a rule was at its highest. Also on highest level is the proactive course of action that is not limited to the reporting of risks, but also includes handling them without being asked.

1. Thesis: The survey has shown that the expatriates are a group of employees who act very proactively and have a very high knowledge about risk management. However, this is more based on experiences and less on applying rules.

The influence of the country of work on the knowledge about risk management could also be researched with the calculation of correlations. Correlation could be found between the place of work and the blocks of knowledge about risk management. The correlation between the country of work and the knowledge about risk management on construction projects was 0.83, the correlation between the country and the knowledge about risk management in business companies was 0.76. Both of these are very high values, as the maximum correlation may only take a value of one. A direct correlation between the two variables could thus be clearly demonstrated.

2. Thesis: There is a connection between the knowledge about risk management on the one hand and the country of work on the other hand.

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BIG DATA AS A NEW APPROACH FOR BETTER SOCIAL IMPACTS OF BUSSINESS DECISIONS

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ABSTRACT

Big Data improves modern bussiness through new aspects of data colection, merging and analysis. Old techniques which treat data have a serious issues with big amounts of data. New approach delivered by Big Data will enable modern bussiness intelligence which deals with extremely large volumes of data, extremely high velocities of data and exteremely various sources of data. Core functions enable bussiness decisions based on real facts with decreasing percent of envolved assumptions. Bussiness decisions realized using the Big Data approach provides better positive feedback and good social impacts where a result of these decisions show positive tendencies with minimalization of negative ones. Bussiness decisions now have greater possibilities to make better and more human society instead of production of negative side effects.

Keywords: *bussines decisions, bussiness intelligence, big data, feedback economy, internet of things, social networks*

1. INTRODUCTION

If we looked back on society and the progress of mankind at all, we can describe that journey through using different types of roads. In the begining, there was a road with dust and progress based on primitive tools for basic human surviving. Than humans get modern asphalt road which symbolized progress based on using a various kinds of machines, from steam engine to modern robots. And then humans started to use highways, knowledge where the data is the key for everything. Or is not?

What is data without appropriate context, only simple collections without meaning. Meaning is the key for everything. Meaning of data, also known as information, is the key of modern society and all aspects of human being include the bussiness.

Some say that we are nowadays we are information society, but we live today at the next level of that society, we live in digital era. Digital era has one dominant characteristic, the amount of data and information that are produced these days are incredibly big viewing from many angles of observations. Today we live in surounding of Big Data.

Previous constations are dominant in the sphere of economy, finance and bussiness data. Right information in right time become essentially important key of every bussiness success. Also a large amount of data and information become a potential hazard for modern bussiness environment, so modern bussiness trends, nowadays, must deal with risk of missing crucial data and information in the large sets of data and information. Crucial task for modern world of bussiness is to determine which data and information are important and which are not in particulary situations and domains.

We use strategies to deal with different types of problems in different domains of human presence. We can see that strategies evolve with complexity of challenges which are presented in education, science, engineering, goverment, military, finance, economy, bussiness and

other branches of work. Some of them are improvements, some of them are new strategies, but most of these strategies have a loop structure in their definition. So we can conclude that the most common component in strategies is some kind of feedback existence. For example, in military we have OODA (Observe, Orient, Decide, Act) with feedback from Act to Observe point, in engineering we have strategies based on iterative-incremental methods with iterations which based on known feedbacks etc.

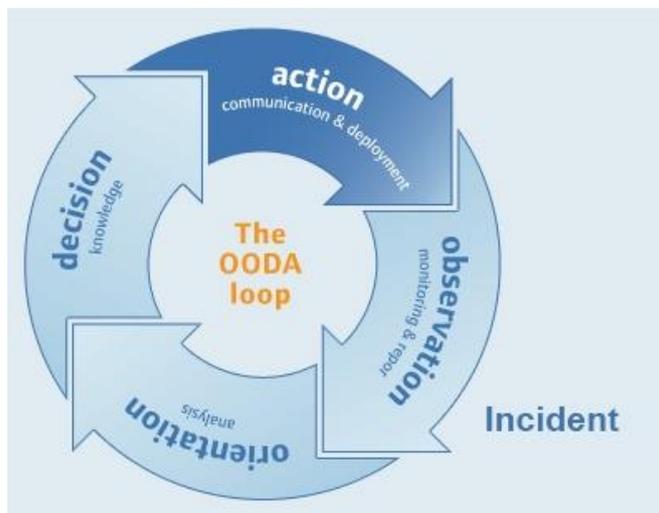


Figure 1: The OODA loop implementation for using in modern decision process (Active Business Solutions, 2015)

With feedback element, data and information collected from data we can achieve serious improvements in variety of business process, from getting higher efficiency to major optimizations procedures. Researcher Alistair Croll claim that the efficiencies and optimizations that come from constant, iterative feedback will soon become the norm for business and governments (Croll, 2012, pp. 1-8).

2. BIG DATA FUNDAMENTALS

Using a data analytics as one of the key processes in modern business approach is not a new tendency. On the contrary, it has been related to financial, economy and business for decades from now. We could say that at the moment when the particular business idea was born, we assume that the data generation related to the idea is started. Direct consequence of that data flow is need to analyze somehow that amount of data and to get special conclusions and information about some area of our business process.

As said before, in the beginning we deal with small amount of data which is relative easy to select, classify, analyze and represent obtained results. But most factors relate with business aren't constants. We are dealing with variable business surrounding and the amount of data grow and become more complex. Number of data sources also grow. Data flow from rain drops become one big strong waterfall. For a very short time in modern, rapid business we achieve phenomenon of dealing with extremely large volumes, extremely high velocity and extremely wide variety of data. Now we can't talking about a data. We must define concept Big Data for our business purposes.

Companies in all sectors have at least 100 terabytes of stored data in the United States; many have more than 1 petabyte

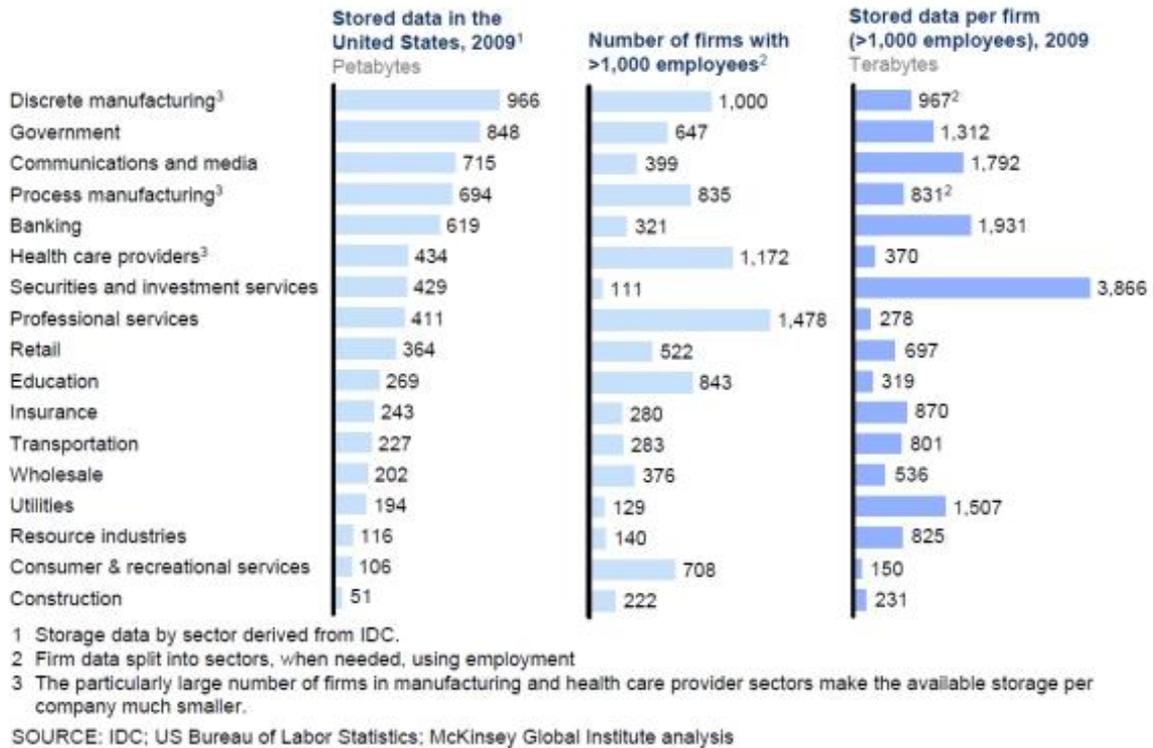


Figure 2: Stored data analysis in the United States for year 2009 (China KDD, 2012)

Logical question from upper definition is why specially we emphasize »Big«. Data is data, small or big. That is correct from the phylosophic point of view, but from the bussiness intelligence point of view we need to improve our bussiness potential ratio somehow with that big amount of data. Our goal is to provide the answers with the right speed, we want to manipulate with data as soon as possible, we want real time data management. For example, look some conference and its attenders. We collect some data of attenders like their names, organizations, cities, states etc. Even if we assume that we have a thousand people on the some conference, that is still relative small amount of data. But organizers want to get new attenders for next conference or for some new conference or for some publications in the related fields. We can for start analyze attenders organizations, get a list of their colleagues from that organizations, get a list of published papers, publications, patents and similiar things and cross reference them to select our potential candidates. Let assume that a half from our thousand attenders have unique organizations, that every organization has hundred researchers for example and that every researcher published twenty papers. So we will for start five hundred different sources for gathering the data, and the amount of data that we will collect that be minimum $500 \cdot 100 \cdot 20$ (organizations*employees*publications) which is minimum of 1.000.000 (one milion) data for this particular case. We said minimum because we use approximation that every specific item consists from one particular fact, but as we know in the real world situation is more complex. For example, information about published paper can contain names of the autors, name of the paper, year, publisher, volume number, number of pages etc. And what if organizers organize more conferences than one and want to analyze merged data from all conferences, and want to merge all data for past five years? As a prove to the mentioned above we will represent the results of data storage analysis in the United

States for year 2009 so we can easily conclude that the current numbers of data is much higher nowadays. As we see from previous example and chart, we can easily achieve extremely large volumes (more and more data), extremely high velocity (rapidly growth) and extremely wide variety (more and more different sources) of data.

3. UNSTRUCTURED (ADHOC) BUSINESS DATA

All business intelligence in the past dealt with strictly structured data. Decisions were based on the strictly defined data located in the companies databases. Data sources were in most cases internal. There were cases of using external sources of data for making business decisions, but even then, amount of sources were so small and defined using some strict company rules.

Typical example of that past times is situation when the company needs to measure customer satisfaction about some company product in aim of decision of continuing or cancellation of the production. Company were targeting customers, done the interviews with strictly defined questions and most of them were with yes/no answers. Then the answers collected into the company databases and company simply measure numbers of yes or no answers and made decisions.

This approach was wrong regardless the number of interviewing customers, companies were incapable to have a real picture about their consumers and their using the product. There were numbers of cases when the companies discontinued products and that products were not failures. In that cases few changes will be enough to make the product good for customers and good for the company and the profit.

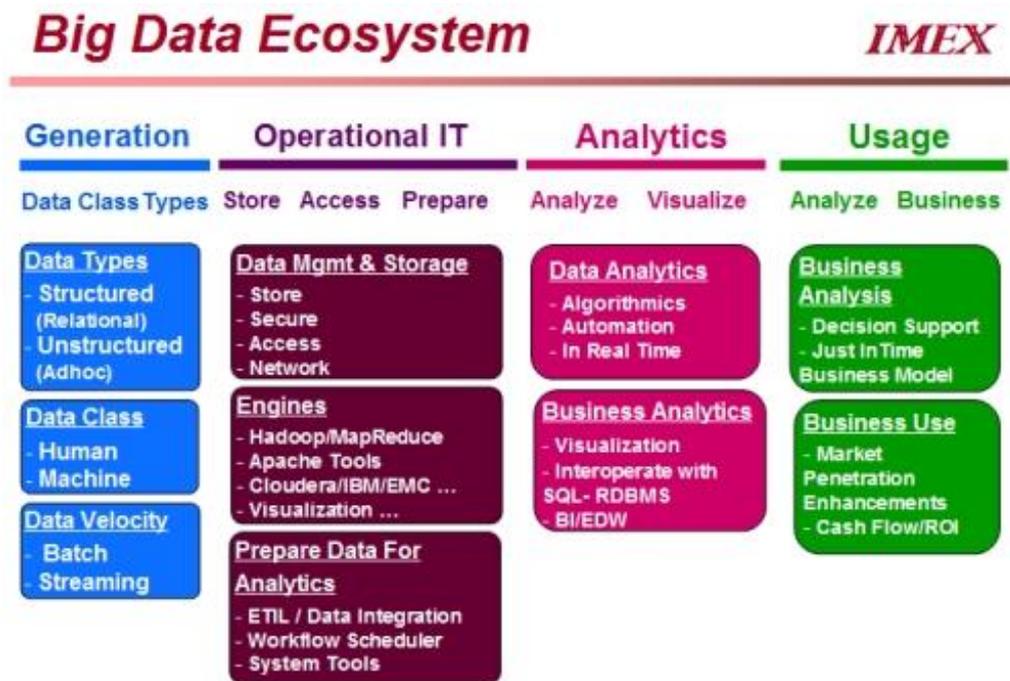


Figure 3: Representation of Big Data Ecosystem through various stages of Big Data Process (Imex Research, 2015)

In the past years situation was changed. Massive communications become a very important role in all spheres of companies and customers digital lifestyle approaches (Rabrenović, 2015, p. 12). Today, we have a situation that modern business solutions are using besides traditional relational data, new data type called unstructured data (also known as adhoc data). In this

paper we will consider two aspects of communications as an example of changed business intelligence from using structured to using of large amount of unstructured data. We will further discuss only about e-mail and the social networking.

3.1. E-mail

Communications realized via e-mail services today represents dominant type of communication in modern business world. E-mail dominates in both spheres of enterprise communications, internal and external. Internal channels contain very important facts which company need for understanding primary goals for business decisions with low percentage of failures. On the other hand, external channels are essence of understanding customers satisfaction and needs.

The real problem of using e-mail data in business decisions is their structure. Technically, every e-mail message has defined structures such as header and body of the message. Header contains very important data such as date, sender information, recipient information etc. and all of these data are structured, so reading, understanding and analyzing these data aren't such a big problem. But, for company and business intelligence more crucial is other part of the messages, body. Body of the message contains that raw pieces of data which may lead us for very crucial information about some business process.

Problem with this data is that they are highly unstructured. Let us explain. You can discover patterns in email communication, but those patterns can be easily changed at the moment by the e-mail sender. These changes are the result of human nature. Natural language of humans is very hard for interpretation in information systems because humans have a natural need to use certainty in their language rather than making conversations with strict facts. For an example, assume that the division manager must inform top manager about possibility of delayed transport of their products tomorrow. He will write something like this using natural constructions of language: »I must inform you that the transport of our product maybe will be late tomorrow.« Take a look a word maybe. Is it definitely yes, or is it definitely no, system is not capable to decide with simple analyze of this sentence and data in it. And that is the problem. Most of messages have this type of construction in it which are related to some uncertainty. So our digital business approaches must be capable of decide with which possibility transport will be delayed. The system must deal with elements of some fuzziness and certainty factors to get the information which is valued for some organizational structures (Subašić, 1997, pp. 141-145)

Other problem is that this is only one sentence which must be recognized in whole mail because in real world e-mail messages are consisted of more than one sentences related more or less, or unrelated for some discussed problem.

3.2. Social networking

There are some experts which said that the face of the modern world is drastically changed at the moment when the social networks came on the scene of nowadays digital communications. Changes of different kinds of information never have been easier, connections of similar interests groups are brought to the next level. And social networking population is rapidly grown. Picture of the world is changed, Internet of Things (IoT) is not more only a theory, it become present and future of today business processes where almost everything and everybody is connected to the global network and all of them are not far away from us, they are digitally so close, one click from us.

Two key words for business intelligence and for business decisions are everything and everybody. This means that at this moment companies will have better flow of data for their business needs and purposes even that those data are not strictly aimed to be used within the

company management information systems. The extremely variety and volume of those data are not something that the companies could be worried or scared about. On the contrary, social networks are the gold mine as a source of new kind of data, data which were unavailable in most cases in the past when the business decisions are made.

The essence of the social networks viewing from the angle of making business decisions will be analyzed on the next example. Imagine that some international company is located in the Asia, with its branches in Europe and United States. That company releases a product on the Asia, Europe and US market. We have a customer using products on three continents and its states. Let's say that a customer A is located in Serbia and customer B is located in the US. Both of the customers have an important remark about a product from Asia and want to share their impressions. First, customers A and B would not call headquarters in Asia by phone because international calls are so expensive. Second, both of the customers would not write an e-mail to company headquarters because they thought that the answer would be stereotype which receives all the customers all over the world. So, customers A and B will log on some social network, join to some discussion group related to the product and discuss with other members about their remarks. Maybe the customers A and B will have mutually conversation about the product and get some outstanding conclusions about eventually new using or improvements about the product. Lot of so crucial data will be generated inside the social network and outside the company corporate network.

Looking at the first hand, the problem is that company would not be aware of these crucial data. Decisions will make without some knowledge which is so important for the customer. So we can say that the problem in some aspect is that all business decisions will get some failure or at the bottom line we can say that business decisions will be incomplete. Second of the problem will be that the customers can be discuss about everything and somewhere in that discussion the product will be mentioned in few sentences. Or maybe discussion is made in some group for example which members are fishermen and their customers for the example discussed about new refrigerators functions because they got some cold beer for their fishing adventures.

4. IMPROVEMENT OF SOCIAL IMPACTS

We discussed in previous chapters about basic concepts related to Big Data and related problems which modern companies have nowadays. We already mentioned before that if companies want to reach concurrent position on the market, they must knock down known boundaries of traditional business process and out from the box. Answers to the crucial business decisions are not anymore only in databases related to various parts of the company information systems. Answers are out there where traditional stops and digital future begins.

4.1. Research and education improvement

Every researcher knows that success of the researching is data related problem in most cases. Quality and quantity of data are important role of every serious researching. Big Data now offers solutions for researchers which is costly effective, domain widespread and the most important at all big data offer possibility for finding universal solutions instead particular, limited findings. Uses of Big Data concepts in researching area provide highway to possibility for creating better and human society.

We will mention breakouts which Big Data already done in health and pharmaceutical researching areas. Remarkable results Big Data approach have in the area of controlling diseases. Major breakouts Big Data through its analytics make in area of finding new cures for especially rare diseases where the lack of data was leading problem. Now Big Data offers to researching teams easily adapt to new environment and tendencies and on that way need a

chance to focus for more possible and universal solutions than the older particular one. Similar situation we have in sphere of education on different levels. The amount of public information is increased in aim to share knowledge and to create better informed society. Especially these new technologies can improve permanent education segment. With Big Data every individual can achieve best performance in studying specific areas which has a significant value for his work or some other sphere of being. For example mechanical engineers now can more learn and understand various deformations of material etc. Even the negative influences are smaller than the benefits; we also must introduce some of them. Two negative influences are dominant. First negative influence is possibility to learn easier some of the areas which is related to aim to make something destructively (already is known situations where individuals made bombs or intentionally accidents). Second negative thing is that sometimes we have situations where false information easily looks like a true facts and being interpreted like reliable ones.

4.2. Environment improvement

Big Data has important role in issues related to environmental protection. Some authors describe Big Data as a missing component in sustainable development. Every aspect of human work has an influence on environment. Some are good, but, mostly there are bad ones. Nowadays one of the key areas in environmental protection, besides recycling, is threatening of the industrial waste problem.

Industrial waste extraction and handling during production process are followed by large amount of data (Milosavljević, Stolić, 2009, pp. 154-159). Few years ago there weren't possibilities to collect, validate and treating all of the data which were generated by the industrial process. Direct consequence of that state was that there were often situations where crucial data were overridden or bad interpreted and that leads to technological accidental situations. For example there were few situations in region where the whole compositions with a toxic industrial waste were forgotten overnight on Serbian railways without proper information about weight, type of material, route etc. Days were needed for collecting and validating missing information, so proper acting according to new information delayed due proper analysis. Luckily bigger accident missed. Big Data in this cases word luck changes with word knowledge. With proper Big Data technology and with concept Internet of Things, now easily we can establish global monitoring systems to prevent similar events through correct decisions. Sensors, cameras and all other devices could generate necessary data and that data could be easy process with Big Data techniques. Now environment can be monitored in aim of prevention and society and environment, with knowledge which Big Data brings to us, can be partners with one positive feedback instead negative ones.

4.3. Customer experience improvement

One universal benefit which Big Data bring to all involved in modern business world is chance to improve the connection with customers. This means that customer opinions will have a greater value in making of business decisions than the past common practice.

Positive feedback or feedback economy is created with the possibility to act according to analysis of different various sources of customer's opinions, wishes, claims etc. These sources we mentioned above. With Big Data now we can tracking and collect information about our products globally instead locally. Powerful sources such as social networks provide to us crucial information which is necessary inputs in our making of business decisions. On that way, companies now can react with real facts and not with assumptions which leads to two significant moments. Companies become more concurrent and create stable economy, so the new jobs are created and current employees have bigger motivation for work (smaller

pressure, bigger salaries, and better healthcare protection). Customers at the other hand get cheaper, reliable products, products which are shaped by their needs and wishes. Big Data creates, through its actions incorporated in business decisions, more responsible players on the global market.

Year	Enterprise Software Spending for Specified Sub-Markets	Forecast: Social Media Revenue, Worldwide, 2011-2016	Big Data IT Services Spending	Total
2011	2,565	76	24,407	27,047
2012	2,918	1,384	23,476	27,778
2013	3,516	1,812	28,578	33,906
2014	4,240	2,827	37,404	44,472
2015	5,207	3,615	36,189	45,010
2016	6,461	4,411	43,713	54,586

Note: Accuracy is to the nearest \$1 million and is derived from percentage-based algorithms. Research data does not provide total accuracy to the nearest \$1 million. Some rounding errors apply.

Table 1: Total IT Spending Driven by Big Data in Millions of Dollars (Columbus, 2012)

4.4. Prevention of non-legal actions

As some author's claims, at least 10 percent of insurance company payments are for fraudulent claims, and the global sum of these fraudulent payments amounts to billions or possibly trillions of dollars (Hurwitz, J, Nugent, A, Halper, F, Kaufman, M, 2013, pp. 260-261). This facts today represent the reason why insurance companies, besides brokers, investment funds, banks and other financial institutions, are one of the biggest investors in technologies and solutions based on Big Data. Big Data is powerful tool in prevention of criminal activities. It will enable better interoperability among various institutions such as local authorities, Interpol, FBI, DEA and others in aim of acting against criminal acts. With strength of Big Data expectations are that the number of international criminal groups and their acts will drastically decrease because many various factors will be better monitored and controlled. There are many examples of possible using Big Data for preventing frauds and criminal acts. We will mention some among them.

Customs will have better fluctuation of data and analysing of data will be almost in real time. Vehicles departments now will more effective combine its databases and data with various references on global level. For example now police patrols will be able to check in real time DMV (Department for Motor Vehucles) databases and cross reference it with other coresponding data like manufacture data via mobile devices which every policeman can carry with him in patrol. Frauds with credit card payments will be decreased also because with Big Data we have now possibilities for fast checking and discovering possible fraud patterns among various financial institutions.

Possibilities are numerous because with Big Data all involved institutions in process easy can interoperabile with data provided from the external sources and chose best scenario to act against crime. If we looked social impacts, there are will be whole set of influences (personal safety will be at higher level, gray zones in economy will be harder to achieve etc).

5. CONCLUSION

Big Data brings transformation of society in better, human society looking from various aspects of human behaviour and work. Power of this claim lies in a fact that these techniques will enable a whole brunch of positive feedbacks in every domain where it will be implemented. It will enable to whole bussiness and society better way to determine which is the best path to make coresponding decision based on facts instead on assumptions. As some authors said Big Data will determine the next best action (Hurwitz, J, Nugent, A, Halper, F, Kaufman, M, 2013, pp. 257-260).

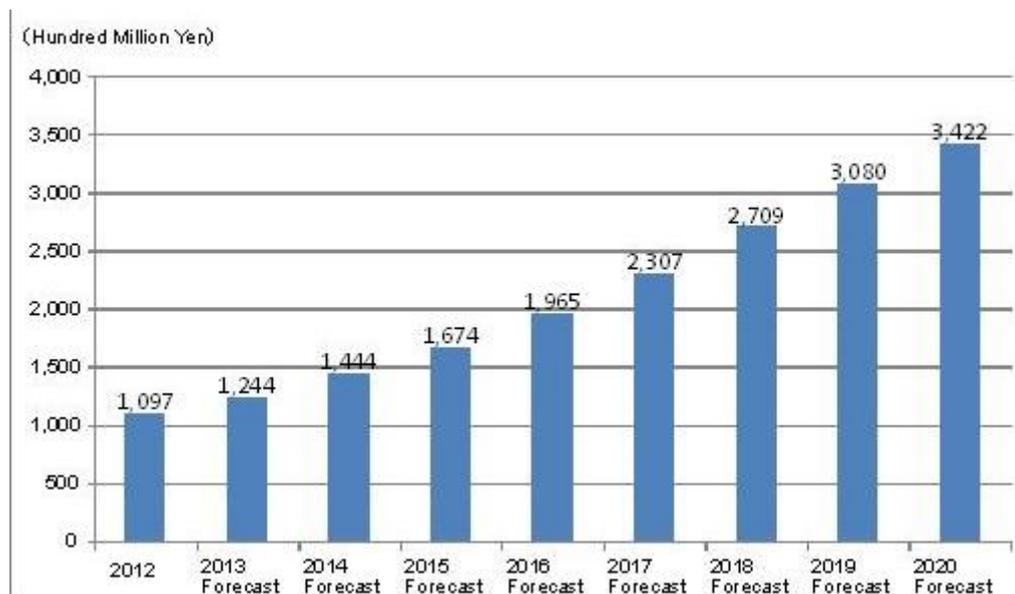


Figure: Forecast of Transition and Size of Big Data Analytics Market in Japan (Yano Research, 2013)

These next best action will transform social impacts of bussiness decisions in better way than the others techniques do. That constation has strong base in elementary components of each Big Data oriented system. Unlike previous analytics techniques, these techniques provide dealing with extremly data situations: extremly volumes of data, extremly velocities of data and extremly variety of data. According to previous constatations and facts, for sure we can claim that the Big Data will be esential tool in all spheres modern bussiness and that modern companies must involve these tools in every aspect of their work and presence on global markets.

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ANALYSIS OF ESTONIA'S TRADE IN GOODS WITH LATVIA, LITHUANIA AND SLOVENIA

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ABSTRACT

This paper analyses Estonia's trade in goods with three Central and Eastern European countries: Latvia and Lithuania, two of Estonia's most important trading partners, and Slovenia, one of Estonia's less important trading partners. In 2013, the value of Estonia's trade in goods with Latvia and Lithuania amounted to €2,576.5 million (9.9 % of the value of Estonia's trade in goods with the world) and €1,942.2 million (7.4 % of the value of Estonia's trade in goods with the world) respectively, while the value of Estonia's trade in goods with Slovenia amounted to only €36.2 million (0.1 % of the value of Estonia's trade in goods with the world), which means that there is a considerable scope for increasing the value of Estonia's trade in goods with Slovenia.

Keywords: *Estonia, Latvia, Lithuania, Slovenia, trade in goods and services, trading partner.*

1. INTRODUCTION

Estonia is, like most other Central and Eastern European countries (CEECs), including Latvia, Lithuania and Slovenia, heavily dependent on its trade in goods and services with the world. There are many reasons for this, such as the relatively small size of Estonia's domestic market for goods and services. In 2013, the value of Estonia's trade in goods and services with the world amounted to €32,515.6 million, 173.5 % of the value of Estonia's gross domestic product (GDP) and an increase of 2.9 % over the previous year. In the same year, the value of Estonia's exports of goods and services to the world amounted to €16,331.8 million, 87.2 % of the value of Estonia's GDP and an increase of 3.7 % over the previous year, while the value of Estonia's imports of goods and services from the world amounted to €16,183.8 million, 86.4 % of the value of Estonia's GDP and an increase of 2 % over the previous year. In order to further increase the value of its trade in goods and services with the world, particularly the developing world, Estonia should further increase its competitiveness (which is already higher than the competitiveness of most other CEECs, including Latvia, Lithuania and, particularly, Slovenia (see Sala-i-Martin et al., 2014, p. 13)) and take some other measures such as further increasing its inventiveness, innovativeness and productiveness. In addition, it should also further increase its attractiveness to both foreign people and foreign companies, including those from Latvia, Lithuania and Slovenia.

2. ESTONIA'S TRADE IN GOODS WITH THE WORLD

This chapter deals with Estonia's trade in goods with the world. In 2013, the value of Estonia's trade in goods with the world amounted to €26,097.3 million, 139.3 % of the value of Estonia's GDP and a decrease of 2 % over the previous year. In the same year, the value of Estonia's exports of goods to the world amounted to €12,291.1 million, 65.6 % of the value of Estonia's GDP and a decrease of 1.8 % over the previous year, while the value of Estonia's imports of goods from the world amounted to €13,806.2 million, 73.7 % of the value of Estonia's GDP and a decrease of 2.1 % over the previous year.

Europe is Estonia's most important foreign market for goods due to geographical, historical and many other reasons. In 2013, the value of Estonia's trade in goods with the Europe amounted to €23,463.4 million (see Table 1), 89.9 % of the value of Estonia's trade in goods with the world and an increase of 0.7 % over the previous year. In the same year, the value of Estonia's exports to Europe amounted to €10,745.7 million, 87.4 % of the value of Estonia's exports of goods to the world and an increase of 3.9 % over the previous year, while the value of Estonia's imports from Europe amounted to €12,717.7 million, 92.1 % of the value of Estonia's imports of goods from the world and a decrease of 1.9 % over the previous year.

Table 1: Estonia's trade in goods by region, 2013

	Exports of goods		Imports of goods		Exports and imports of goods	
	Value in million €	Percentage of the total value	Value in million €	Percentage of the total value	Value in million €	Percentage of the total value
Africa	128.2	1.0	14.4	0.1	142.6	0.5
America	507.2	4.1	190.9	1.4	698.1	2.7
Antarctica	1.6	0.0	0.0	0.0	1.6	0.0
Asia	735.3	6.0	873.2	6.3	1,608.5	6.2
Europe	10,745.7	87.4	12,717.7	92.1	23,463.4	89.9
Oceania	24.4	0.2	10.0	0.1	34.4	0.1
Not specified	148.8	1.2	0.0	0.0	148.8	0.6
Total	12,291.1	100.0	13,806.2	100.0	26,097.3	100.0

Source: Statistics Estonia (2014).

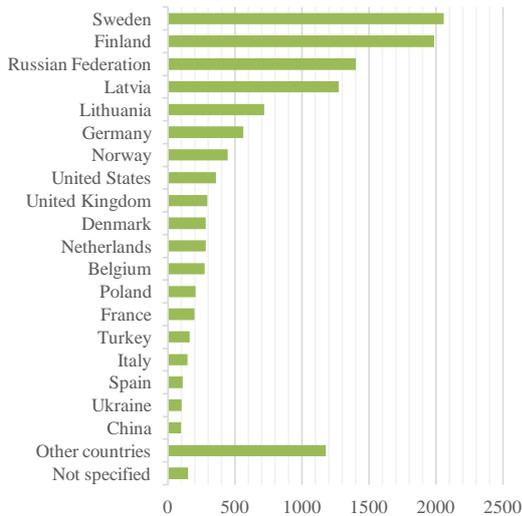
Asia is Estonia's second most important foreign market for goods. In 2013, the value of Estonia's trade in goods with Asia amounted to €1,608.5 million, 6.2 % of the value of Estonia's trade in goods with the world and a decrease of 4.3 % over the previous year. In the same year, the value of Estonia's exports of goods to Asia amounted to €735.3 million, 6 % of the value of Estonia's exports of goods to the world and a decrease of 4.5 % over the previous year, while the value of Estonia's imports of goods from Asia amounted to €873.2 million, 6.3 % of the value of Estonia's imports of goods from the world and a decrease of 4 % over the previous year.

America is Estonia's third most important foreign market for goods. In 2013, the value of Estonia's trade in goods with America amounted to €698.1 million, 2.7 % of the value of Estonia's trade in goods with the world and a decrease of 31 % over the previous year. In the same year, the value of Estonia's exports of goods to America amounted to €507.2 million, 4.1 % of the value of Estonia's trade in goods with the world and a decrease of 38.8 % over the previous year, while the value of Estonia's imports of goods from America amounted to €190.9 million, 1.4 % of the value of Estonia's imports of goods from the world and an increase of 4.8 % over the previous year.

Other regions are Estonia's less important foreign markets for goods. In 2013, the value of Estonia's trade in goods with Africa, Antarctica and Oceania amounted to €178.6 million, 0.7 % of the value of Estonia's trade in goods with the world.

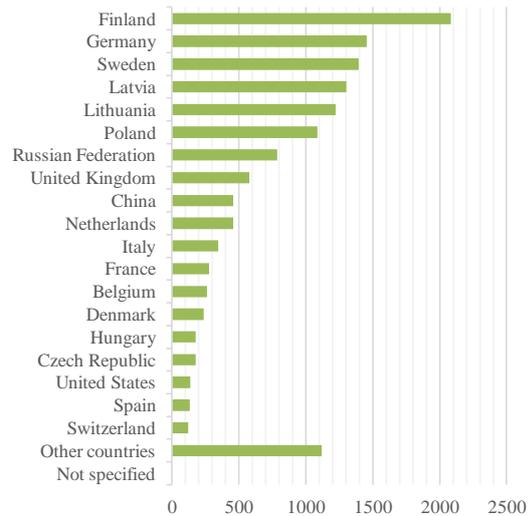
In 2013, Estonia exported most goods to Sweden, followed by Finland and the Russian Federation (both of which are Estonia's neighbouring countries) (see Figure 1), while it imported most goods from Finland, followed by Germany and Sweden (see Figure 2).

Figure 1: Estonia's exports of goods by country, 2013 (value in million €)



Source: Statistics Estonia (2014).

Figure 2: Estonia's imports of goods by country, 2013 (value in million €)



Source: Statistics Estonia (2014).

3. ESTONIA'S TRADE IN GOODS WITH CENTRAL AND EASTERN EUROPE

This chapter deals with Estonia's trade in goods with Central and Eastern Europe (CEE), which is mainly due to Germany, Latvia and Lithuania one of Estonia's most important foreign markets for goods. In 2013, the value of Estonia's trade in goods with CEE amounted to €9,007.2 million, 34.5 % of the value of Estonia's trade in goods with the world. In the same year, the value of Estonia's exports of goods to the CEE amounted to €3,139.3 million, 25.5 % of the value of Estonia's exports of goods to the world, while the value of Estonia's imports of goods from CEE amounted to €5,867.9 million, 42.5 % of the value of Estonia's imports of goods from the world.

In 2013, Estonia's three most important trading partners in CEE were Germany, Latvia and Lithuania (see Table 2), which together accounted for 72.6 % of the value of Estonia's trade in goods with CEE.

Table 2: Estonia's trade in goods by CEEC, 2013

	Exports of goods		Imports of goods		Exports and imports of goods	
	Value in million €	Percent age of the total value	Value in million €	Percent age of the total value	Value in million €	Percent age of the total value
Albania	0.6	0.0	0.0	0.0	0.6	0.0
Austria	35.1	1.1	118.4	2.0	153.5	1.7
Belarus	51.6	1.6	87.2	1.5	138.8	1.5
Bosnia and Herzegovina	2.2	0.1	0.3	0.0	2.5	0.0
Bulgaria	25.9	0.8	14.4	0.2	40.3	0.4
Croatia	1.9	0.1	3.5	0.1	5.4	0.1
Czech Republic	48.4	1.5	176.7	3.0	225.1	2.5
Germany	563.8	18.0	1,455.8	24.8	2,019.6	22.4
Hungary	28.0	0.9	177.7	3.0	205.7	2.3
Kosovo	0.0	0.0	0.0	0.0	0.0	0.0
Latvia	1,274.7	40.6	1,301.8	22.2	2,576.5	28.6
Lithuania	717.9	22.9	1,224.3	20.9	1,942.2	21.6
Macedonia	0.2	0.0	0.5	0.0	0.7	0.0
Moldova	5.0	0.2	2.0	0.0	7.0	0.1
Montenegro	0.1	0.0	0.0	0.0	0.1	0.0
Poland	207.8	6.6	1,086.0	18.5	1,293.9	14.4
Romania	11.1	0.4	39.3	0.7	50.4	0.6
Serbia	5.0	0.2	2.1	0.0	7.1	0.1
Slovakia	51.3	1.6	61.7	1.1	112.9	1.3
Slovenia	7.4	0.2	28.8	0.5	36.2	0.4
Ukraine	101.3	3.2	87.3	1.5	188.6	2.1
Total	3,139.3	100.0	5,867.9	100.0	9,007.2	100.0

Source: Statistics Estonia (2014).

4. ESTONIA'S TRADE IN GOODS WITH LATVIA

Latvia is, like Estonia, Lithuania and Slovenia, a maritime country, which offers many opportunities to further increase the value of Latvia's (maritime) trade in goods with other maritime countries, for example in America and Asia. Additionally, it also offers many opportunities to further increase Latvia's cooperation with other maritime countries, particularly Estonia and Lithuania, in areas such as maritime science and technology, maritime trade in goods, maritime transport of goods and people, and maritime safety. In order to take advantage of these (and some other) opportunities, Latvia should increase its competitiveness, which is the lowest among the three Baltic countries (see Sala-i-Martin et al., 2014, p. 13).

Latvia is, like Lithuania (which is the largest one of the three Baltic countries in terms of area and population), one of Estonia's most important trading partners. There are many reasons for this, such as the relatively small distance between the two neighbouring countries and the relatively low transportation costs as a consequence. In 2013, the value of Estonia's trade in

goods with Latvia amounted to €2,576.5 million, 9.9 % of the value of Estonia's trade in goods with the world and an increase of 8.4 % over the previous year. In the same year, the value of Estonia's exports of goods to Latvia amounted to €1,274.7 million, 10.4 % of the value of Estonia's exports of goods to the world and an increase of 15.5 % over the previous year, while the value of Estonia's imports of goods from Latvia amounted to €1,301.8 million, 9.4 % of the value of Estonia's imports of goods from the world and an increase of 2.3 % over the previous year.

5. ESTONIA'S TRADE IN GOODS WITH LITHUANIA

Lithuania, which is the last of the three Baltic countries to adopt the euro, is one of Estonia's most important trading partners. In 2013, the value of Estonia's trade in goods with Lithuania amounted to €1,942.2 million, 7.4 % of the value of Estonia's trade in goods with the world and an increase of 6.9 % over the previous year. In the same year, the value of Estonia's exports of goods to Lithuania amounted to €717.9 million, 5.8 % of the value of Estonia's exports of goods to the world and an increase of 9.2 % over the previous year, while the value of Estonia's imports of goods from Lithuania amounted to €1,224.3 million, 8.9 % of the value of Estonia's imports of goods from the world and an increase of 5.6 % over the previous year.

Lithuania's adoption of the euro on 1 January 2015 may have a positive impact on Lithuania's trade in goods (and services) with Estonia (which adopted the euro on 1 January 2011) and other euro area countries, including Latvia (which adopted the euro on 1 January 2014) and Slovenia (which adopted the euro on 1 January 2007). In addition, it may also have a positive impact on Lithuania's trade in goods (and services) with non-euro area countries.

6. ESTONIA'S TRADE IN GOODS WITH SLOVENIA

Slovenia is one of Estonia's less important trading partners. There are many reasons for this, such as the relatively large distance between the two countries and the relatively high transportation costs as a consequence. In 2013, the value of Estonia's trade in goods with Slovenia amounted to €36.2 million, 0.1 % of the value of Estonia's trade in goods with the world and a decrease of 11.4 % over the previous year. In the same year, the value of Estonia's exports of goods to Slovenia amounted to €7.4 million, 0.1 % of the value of Estonia's exports of goods to the world and a decrease of 6.8 % over the previous year, while the value of Estonia's imports of goods from Slovenia amounted to €28.8 million, 0.2 % of the value of Estonia's imports of goods from the world and a decrease of 12.5 % over the previous year.

7. SOME MEASURES TO (FURTHER) INCREASE THE VALUE OF ESTONIA'S TRADE IN GOODS AND SERVICES WITH LATVIA, LITHUANIA AND, PARTICULARLY, SLOVENIA

In order to (further) increase the value of its trade in goods and services with Latvia, Lithuania and, particularly, Slovenia, Estonia should:

- increase its cooperation with these three countries in areas such as science and technology, particularly information science and information technology;
- remove unnecessary political and other barriers to its cooperation with these three and other countries, particularly in CEE;
- increase cooperation between companies that export goods and/or services from Estonia to Latvia, Lithuania and/or Slovenia;
- increase cooperation between companies that import goods and/or services from Latvia, Lithuania and/or Slovenia to Estonia;

- increase cooperation between companies that do not export goods and/or services from Estonia to Latvia, Lithuania and/or Slovenia, but would like to;
- increase cooperation between companies that do not import goods and/or services from Latvia, Lithuania and/or Slovenia to Estonia, but would like to;
- increase cooperation between companies that export goods and/or services from Estonia to Latvia, Lithuania and/or Slovenia, and companies that do not export goods and/or services from Estonia to Latvia, Lithuania and/or Slovenia, but would like to;
- increase cooperation between companies that import goods and/or services from Latvia, Lithuania and/or Slovenia to Estonia, and companies that do not import goods and/or services from Latvia, Lithuania and/or Slovenia to Estonia, but would like to;
- increase cooperation between people and/or companies from Estonia on the one hand, and people and/or companies from Latvia, Lithuania and/or Slovenia on the other hand;
- remove unnecessary barriers to trade in goods and services between Estonia on the one hand, and Latvia, Lithuania and/or Slovenia on the other hand;
- remove unnecessary barriers to domestic investment abroad (for example, in Latvia, Lithuania and Slovenia) and foreign investment at home;
- remove unnecessary barriers to invention and innovation at home;
- improve transport infrastructure (particularly airways, railways and roadways) and transport links with neighbouring and other countries;
- increase the ease of doing business both at home and abroad;
- remove unnecessary barriers to doing business both at home and abroad;
- etc.

8. CONCLUSION

Estonia is, like some other developed countries, for example Finland and Sweden, two of Estonia's most important trading partners, a high-tech society, which means that there is a relatively large market for high-tech goods and services in Estonia, offering many opportunities for foreign high-tech companies, including those from Latvia, Lithuania and Slovenia, to increase their revenues from sales.

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THE IMPACT OF CREDIT RISK ASSESSMENT ON CREDIT ACTIVITY OF COMMERCIAL BANKS

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ABSTRACT

As banks have great social responsibility and are a subject to a specific and extensive regulations, one of the being Basel, the authors of this paper focus on the impact of credit risk assessment on credit activity of commercial banks. The authors of this paper provide a standard for risk management and an insight into directions on how to manage credit risk in the most efficient way and how to assess credit rating of a borrower.

Keywords: *Basel II and III, Credit risk, Credit Activity of Commercial Banks and Risk Management.*

1. INTRODUCTION

As banks have great social responsibility and are a subject to a specific and extensive regulations, one of the being Basel, the authors of this paper focus on the impact of credit risk assessment on credit activity of commercial banks. After initial credit expansion, negative macroeconomic tendencies, economic slowdown and decrease in standard of living since 2009, have led to reduction in the quality of bank credit portfolio while the drop in credit activity sped up the process of this deterioration. ¹ This phenomenon has contributed to the interest in assessing credit risk that has been considerable in recent years.

2. RISK MANAGEMENT IN BANKING

A bank identifies measures and assesses the risks it is exposed to with the aim to manage them. It is liable to form a specific organizational unit responsible for managing risks. Risk management is in accordance with the size and organizational structure of a bank and the volume and type of its activities. Pursuant to the Decision on Risk Management, a bank shall establish such internal organization/ organizational structure by which the activities of risk management (middle office) and support activities (back office) would be functionally and organizationally separated from risk assumption (front office), with a clearly defined division of employees' tasks and duties that prevents conflict of interest (front office) (article 9). A bank shall establish an effective and efficient risk management process which encompasses

¹ Ljubić. Marijana, (2011), Stress tests as an instrument of risk control in banks, Megatrend Review: Megatrend University magazine, vol. 8, No. 1 (2011)., p. 303-324.

mitigation, monitoring and control of risks that the bank is or may be exposed to and which it identified and measured and/or assessed (article 13).

Law on Banks classifies the risks a bank is exposed to in the following way: RS Official Gazette No. (107/2005, 91/210 and 14/2015)

- 1) liquidity risk;
- 2) credit risk;
- 3) interest rate risk, foreign exchange risk and other market risks;
- 4) risk of exposure of bank to one person or a group of related persons;
- 5) investment risks in other legal persons, fixed assets and bank investment real estate;
- 6) risks relating to the country of origin of the entity to which a bank is exposed ;
- 7) operational risk, which particularly includes legal risk and inappropriate management of information and other technologies important for business operations. (Article 29)

The Decision on Risk Management has classified the risks bank may be exposed in a slightly more detailed way. The Decision states that banks are particularly exposed to or may be exposed to the following risks: 1) liquidity risk; 2) credit risk, including residual risk, dilution risk, settlement/delivery risk and counterparty risk ; 3) interest rate risk; 4) foreign exchange risk and other market risks ; 5) concentration risk, which particularly includes risks of exposure of the bank to one person or a group of related persons ; 6) investment risks; 7) risks relating to the country of origin of the entity to which a bank is exposed (country risk); 8) operational risk, which particularly includes legal risk; 9) risk of compliance of the bank's operations; , 10) strategic risk, 11) other risks.

(“RS Official Gazette”, No. 45/2011, 94/2011, 119/2012, 123/2012, 23/2013 – dr. Decision 1 , 43/2013 and 92/2013)

Credit risk is a basic bank risk and it represents the most significant risk that a bank is exposed to in its operations. It is as old as banking is, and each process of lending money to a counterparty involves a danger that assets might not be paid off in due time and in accordance with the agreed terms.

This requires a system of credit risk management which provides accurate and duly credit risk rating and precise classification of credits among priorities that should be supervised the most. Risk management involves several phases: (1) risk identification, (2) risk analysis, (3) risk measurement, (4) risk monitoring, and (5) risk control. Identification and assessment of credit risk is actually the first step in the process of acting on it effectively.

The Central Bank expects national banks to have a credit risk management system which provides an accurate and duly risk rating. Also, Central Bank considers accurate credit classification one of its priorities which should be supervised in detail. According to Basel standards, depending on the amount of bank's capital, it is important to recruit a certain number of experts who will be dealing exclusively with the process of monitoring credit risk as the key risk in banking operations.

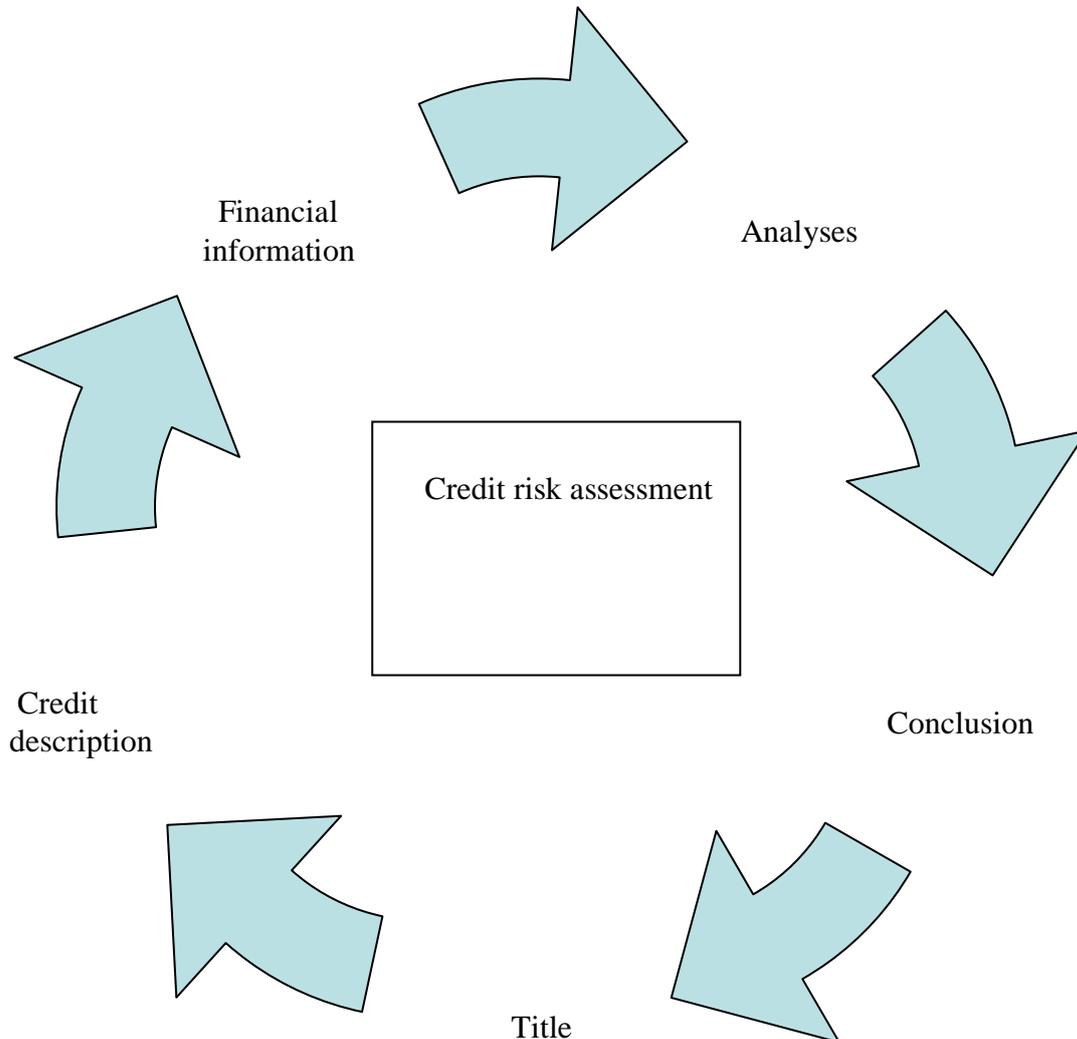
2.1. Procedures for assessment of credit risk acceptability in banks

Within the standards and procedures used for measuring and controlling risks in banking operations, there are specific procedures concerned with credit risk. The authors of this paper provide a standard for risk management and an insight into directions on how to manage credit risk in the most efficient way and how to assess credit rating of a borrower.

The procedures for assessment of acceptability of credit risk have a key role in his process. They primarily inform Board of directors and management about weaknesses of borrower's credit rating assessment, often supporting administration activities and expenses that this process requires. They describe specific loans whose payoff is questionable and which, if it

was not paid off, would have a significant effect on the bank's concept of capital increase. These are recommended for particularly important and classified national loans, e.g. when management does not agree with the classification, when (insider) loan has unfavourable assessment or when the breach of law is involved. It is presented in a written form, and contains comments relevant to loans and potential debts which are subject to unfavourable price. Ineffective presentation of facts weakens the criticism and casts doubt on the precision of bank's assessment practice, exceptions in politics and administrative decreases related to credit problems.

Picture . 1 Procedures for credit risk assessment with the phases of the process



Source: The authors according to OCC 97-24, Models for taking out a loan, 2007.

Picture 1. shows the application of credit risk management procedure, which generally consists of five following parts: the title, credit description, financial information, analyses and in the end, conclusion. If a credit that is exposed to a classification or a specific purpose where a particular note refers to historically strong performance and realization of recent

problems decreases temporary operation costs and as a result, there is a strong impact and working capital. This assessment also confirms a weak basis for controlling a loan.

3. REGULATORY FRAMEWORK FOR CREDIT RISK MANAGEMENT

The impact of economic crisis on the standards of Basel Committee on Banking Supervision has led to the changes and proposals for improvement of Basel II were given, resulting in creation of Basel III standards, intended primarily for strengthening the framework and providing the answers for the world economic crisis that unfortunately hit the banking world and other financial institutions worldwide.² In order to continually comply the regulatory framework with the standards of Basel Committee on Banking Supervision³ and EU regulations, Executive Board of the National Bank of Serbia adopted the *Strategy for Introducing Basel III standards in Serbia*⁴ in 2013. The focus was primarily on legal acts of the European Union for introduction of Basel III standards and which, compared to Basel documents, contains technical details.

The subject of the analysis in the Strategy were the areas covered by Basel III (including Basel II and Basel 2.5) standards, as follows:

- Definition and elements of capital, indicators of capital adequacy;
- Capital requirements for credit risk – standardized approach;
- Capital requirements for credit risk – internal rating based approach (*IRB* approach);
- Capital requirements for credit risk – techniques for minimizing credit risk;
- Capital requirements for credit risk – *securitization*;
- Capital requirements for operational risk;
- Capital requirements for market risks;
- Great exposures;
- Liquidity coverage ratio indicator (*LCR* indicator);
- Capital buffers;
- Other (settlement/delivery risk, counterparty risk, credit valuation adjustment, data and information disclosure).

The focus was also on the acts of domestic regulations which were compared to the international standards and regulations, including the following:

- Banking law;
- Decision on capital adequacy;
- Decision on risk management in banks;

Recent Basel III standards are tighter and their adoption is expected to lead to a higher quality of capital basis of banks, more adequate risk management, introduction of a new parameter which would present the ratio between capital and total bank exposure (*leverage ratio*) and determination of its minimum level, introduction of measures that will require banks to set aside more assets that could be used in crises periods and introduction of two global liquidity standards for internationally active banks.

² Ljubić Marijana, The impact of world economic crisis on Basel II, Accounting: magazine about accounting, auditing and business finance, The Association of Accountants and Auditors of Serbia, vol. 53, No. 11-12/09, December 2009, p. 94-108.

³ The principal aim of BCBS is the improvement of understanding of key supervisory challenges and quality of bank supervision worldwide. Source: Bank for International Settlement, International Convergence of Capital Measurement and Capital Standards, A Revised Framework, Comprehensive Version, June 2006, p. 137.

⁴ National Bank of Serbia, Strategy for introduction of Basel III standards in Serbia, Supervision sector, 2013

The adopted documents in the world stipulate the transition period for gradual introduction of new rules in the field of banking on the national level and the complete implementation of those rules is expected to take place on January 1st, 2019. Although Basel standards are not binding, their adoption is expected to have a significant impact on the change of regulatory environment on banks and their operations. Since the introduction of Basel II was implemented in the time when Basel Committee on Banking Supervision had already announced Basel III, some of its elements were introduced in regulatory framework of the Republic of Serbia within the Decision on bank capital adequacy. That way, supplementary capital II (Tier 3) was excluded from the definition of regulatory capital, which contributed to strengthening capital quality, which now includes only fixed (Tier 1) and supplementary capital (Tier 2); another type of additional capital reserves for limiting distribution of profits (capital conservation buffer), has also been proscribed, where banks whose adequacy indicator was higher or would, due to the capital distribution, be higher than proscribed (12%) by less than 2.5 percentage points can perform capital distribution only into the elements of fixed capital. The changed regulations, with the aim of compliance with the requirements of Basel III resulted in a different procedure for risk assessment. It would be logical to expect that tighter regulations for credit risk assessment result in higher quality placements and decreased credit activity of commercial banks. With the aim to gain an insight into changes caused by altered regulations, The National Bank of Serbia has, since 2014, been carrying out a survey on banks' credit activity in four time series. The survey includes all the aspects of credit market, and is methodologically in accordance with the survey conducted by central banks of the euro zone, with certain modifications. An alternative measure for statistical analysis of the survey results is diffusion index, which shows the net percentage that clearly differentiates between intensity of responses. Since a respondent gives the answer by choosing one of five options, it can be concluded that the answers to all five options are converted into numbers and thus are given numeric values ranging from -1 to 1. The survey included 28 banks, out of the total number of 295 in 2014. The answers of different banks are related with their participation in the relevant credit market (the market that was included by the survey and the market of each individual bank)- the bigger the bank market share, the more importance should be given to its answer. Basel standards define market risk as a risk of losses in balance sheet and off balance sheet related positions deriving from changes in market prices⁶.

A bank can be exposed to the market risk in the following positions⁷:

1. bonds with fixed and flexible interest rates,
2. shares,
3. derivatives based on different assets – shares, bonds, futures, etc.
4. credit transactions related with exchange rates and
5. credits with a foreign currency clause.

Borrower's credit rating is certainly key to approving credit placements. Monitoring bank credit activities is a basis of adequate supervision and clear monitoring. The results of

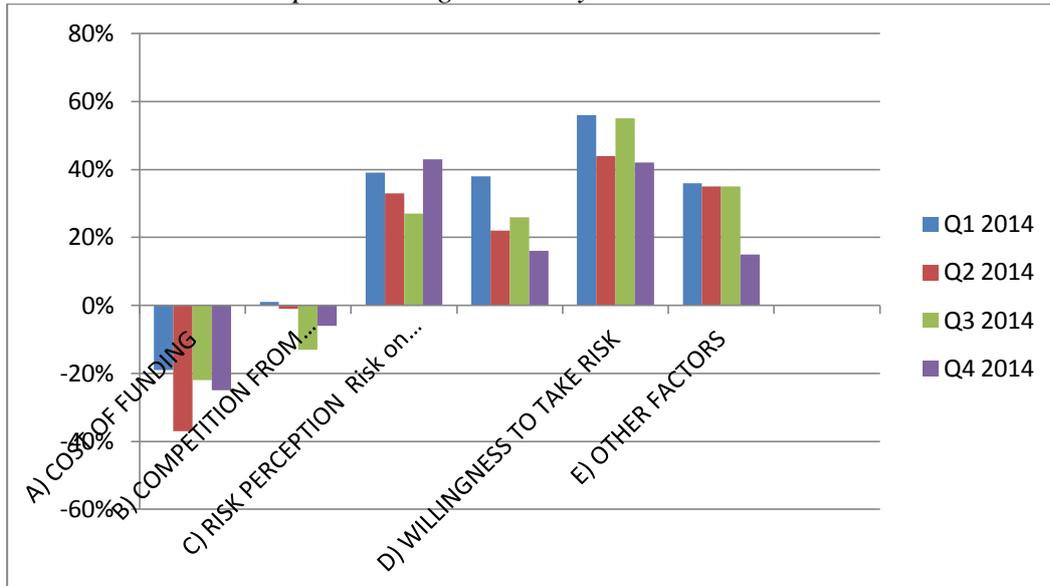
⁵ National Bank of Serbia, List of banks, year of access 2014
http://www.nbs.rs/export/sites/default/internet/latinica/50/50_2.html. Note: The number of banks in the banking system of the Republic of Serbia increased by one in 2015 and at the moment when the paper was written it amounted 30.

⁶ Christopher Ian Marrison, *The Fundamentals of Risk Measurement*, McGraw-Hill Professional, 2002, p. 42.

⁷ Vunjak N., Đurašinić J., *Determinants of risk in commercial banks*, Seminar SM 2007, Risk management in strategic management, Proceedings, Faculty of Economics, Subotica, 2007, p. 10.

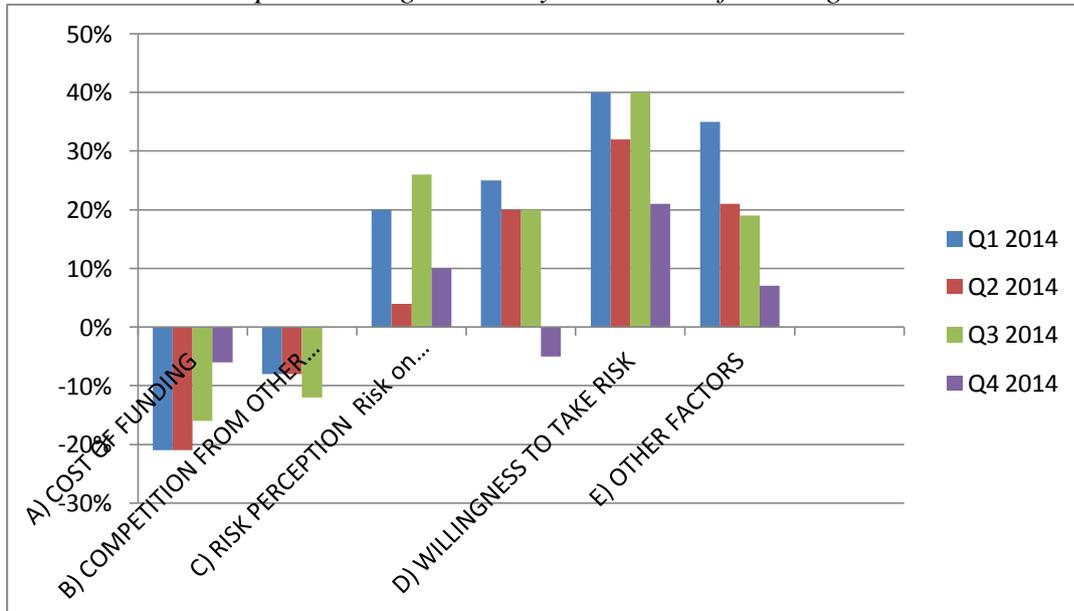
supervision that provided the data from surveyed banks clearly speak about the implementation of Basel standards in Serbia. The focus was only on the data related to credit activity of banks on the placements in foreign currency clause as follows: both short-term and long-term and credits for small, medium and big companies. With respect to compliance of rules and regulations in banks, Graphs 1 and 2 show the impacts of factors on credit standards which banks apply in the process of loan approval or credit lines to companies in the last three months Graph 1. compared to previous three months Graph 2., and a prediction in the following three months compared to the last three months in 2014.

Graph 1. Foreign currency loans in the last three months



Source: The authors, based on Survey on banks' credit activities, Supervision Department, 2014

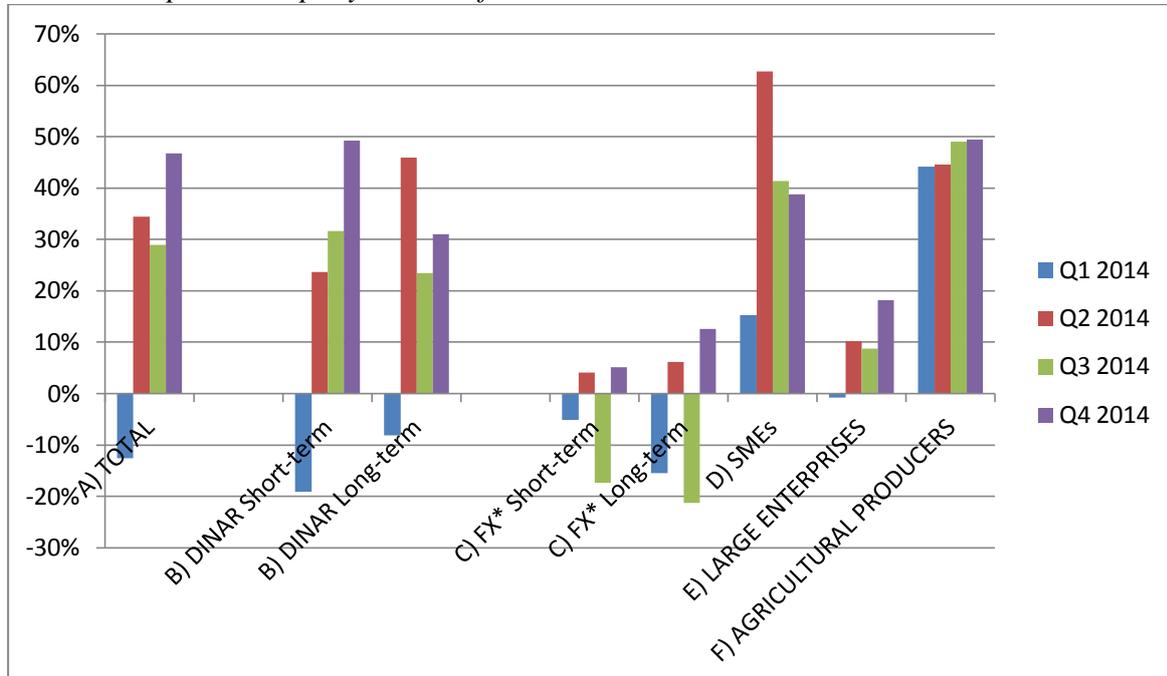
Graph 2. Foreign currency loans in the following three months



Source: The authors, based on Survey on banks' credit activities, Supervision Department, 2014

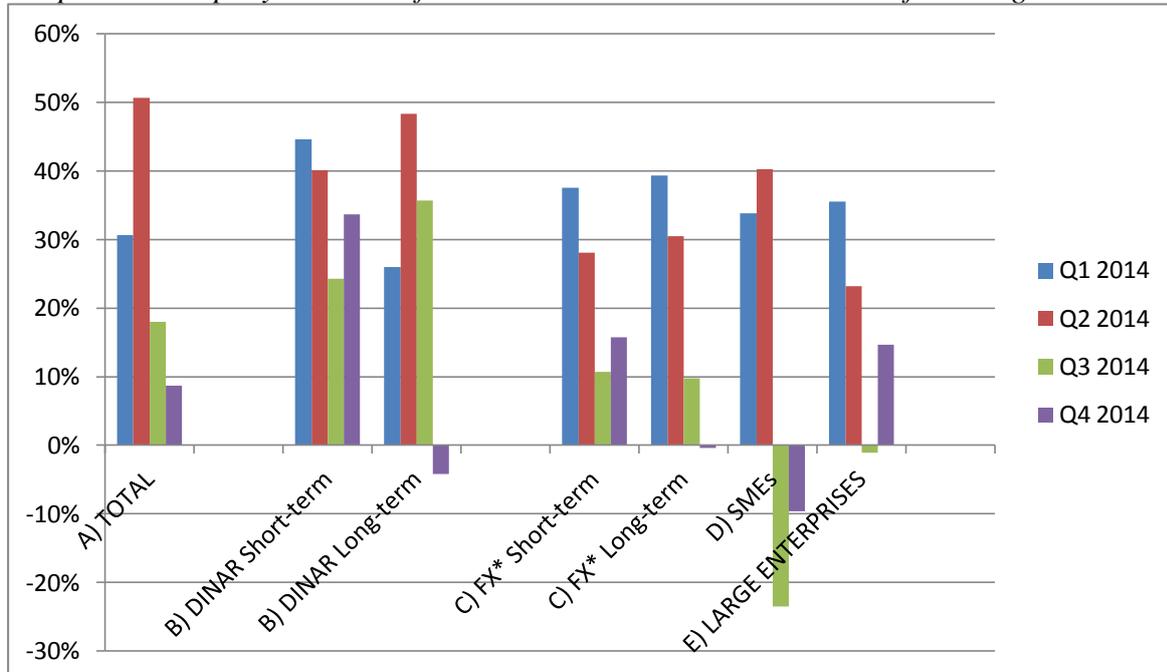
Graphs 3 and 4 show the data on the changes of company demand for loans and credit lines in the last three months Graph 3 in comparison with previous three months Graph 4 as a prediction for the following three months compared to last three months in 2014.

Graph 3. Company demand for loans and credit lines in the last three months



Source: The authors, based on Survey on banks' credit activities, Supervision Department, 2014

Graph 4. Company demand for loans and credit lines in the following three months



Source: The authors, based on Survey on banks' credit activities, Supervision Department, 2014

The above mentioned data show that credit activity of the banking sector in Serbia is on a high level, which is seen from Graphs 1 and 2, where the perception of risk of incollectability of accounts receivable in the previous three months (T1 56%, T2 44%, T3 55%, T4 42%) compared to the planned three months (T1 40%, T2 32%, T3 40%, T4 21%) is significantly lower, which contributes to stability of banking sector in Serbia. With respect to procedures and instructions used for managing credit risk in the most efficient way and the process of credit rating assessment of a borrower, the readiness of banks to take a risk is lower during the previous three months (T1 36%, T2 35%, T3 35%, T4 15%), compared to the planned three months (T1 35%, T2 21%, T3 19%, T4 7%), which contributes to a better understanding of the set standards and making business decisions.

Graphs 3 and 4 show that demand of companies for loans and credit lines is increased during the last three months. The total demand of companies for loans and credit lines in the last three months (T1-13%, T2 34%, T3 29%, T4 47%), compared to the following three months (T1 31%, T2 51%, T3 18%, T4 9%), increased in T1 and T2, while it decreased in T3 and T4.

4. CONCLUSION

Regardless of the impact of the economic crisis, the banking system in Serbia has remained stable. The adequacy of banks' capital is higher than the proscribed 8% (Basel II), and above proscribed 12% (Decision on capital adequacy) in accordance with Serbian regulations. Average adequacy of bank capital in Serbia remained at 16% in 2014, which is more compared to the world standards. It is expected that capital adequacy will remain at the same level, having in mind that the banking sector in Serbia is stable, and banks are well capitalized.

Based on the share in the total balance sheet assets of the banking sector, 75% of banks are foreign, and their branches already implement Basel III capital standards, which makes the application process easier in Serbia.

Compliance of regulations with world standards in banking operations contributes to efficiency of credit policies to a great extent, which eases the process of making business decisions. The aim of it is the application of the elements of standards for improvement of internal processes of credit risk rating.

On the other hand, a tighter method of assessment of exposure to credit risk results in decrease of credit activity of banks. As Serbian financial system is extremely bank centered and Serbian economy is facing major problems, a tighter assessment of credit risk will put a substantial number of companies in a difficult position when it comes to the possibility of funding the development and the need for working capital.

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SUPPLY CHAIN MANAGEMENT RISKS: THE A350 DEVELOPMENT PROGRAM

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ABSTRACT

In order to respond to the market demands and create additional value for customers and airlines, Airbus decided to develop a new member of its wide-body Family, Airbus A350 XWB. The A350XWB's benefits of the new manufacturing and assembly techniques, applied on other aircraft of the Airbus Family, such as the A330 and the A380. It also utilizes a supply chain based on the lessons learned over the time from other programs. The paper analyzes the structure of A350 supply chain, describes Airbus's challenges for managing this supply chain, and highlights some key lessons that could be taken into consideration for the next supply chains of the new product development.

Keywords: *Airbus, A350XWB, Management, Supply chain*

1. INTRODUCTION

According to forecasting reports (Airbus, 2013, pp.9) air traffic has doubled every 15 years and it is expected to double over the next 15 years. In 2013 air traffic increased by 5.7% from the previous year (Airbus, 2014, pp.6). With this growth, airlines continue to adapt and also to keep a balance between the requirements of efficiency, competition and passengers. Also the variation of economic factors and 2008 global financial crisis, as well as socio-economic indicators are drivers to the air traffic growth rate. Air traffic influenced airlines' aircraft fleet growth. In the same time it's necessary to replace the old equipment. Another important element is the way airports are efficiently used. The average number of movements per airport has increased annually from 8,000 movements during the 80s to more than 18,000 today (Airbus, 2014, pp.19). Also, deregulation and liberalization of air traffic (1977) in the main markets from Europe and the US has led to increasing competition in the airline industry. The main competitors faced pressure on costs and production time. Airbus and Boeing aircraft manufacturers have begun to build new aircraft models by introducing a series of measures to restructure the supply chain (Haas, 2011). This enabled them to provide intermediate products increasingly diverse and complex, the basic features are evident at last applied models B787 and Airbus A350 aircraft. After launching programs as A380, the largest aircraft in the market with over 500 passenger seats and A330/40 model, Airbus decided to launch a new aircraft development program called A350. The new A350 aircraft incorporates common characteristics and new technologies developed for the A380 and A330 aircraft programs. This features allow rapid and substantial improvements in terms of performance and reduce costs (Airbus, 2004, pp.42). There are three versions of aircraft, A350-800, A350-900 and A350-1000 differently designed to carry between 276 and 369 passengers. The range of each version of A350 is over 8000 nautical miles (nm). A350 is a direct competitor of B787 and B777. Like on the other aircraft programs Airbus strategy is to create added value for both airlines and passengers. Airbus added value strategy for passengers is to bring a new level of comfort, with more personal space, wider seats and more space luggage storage.

Figure 1 and Tabel 1 compares the new Airbus aircraft with others aircraft from the same range. Airbus is focused to meet the new requirements taking into account the long distance flights are becoming increasingly frequent.



Figure 1. Airbus and Boeing comparison costs

Table 1: Comparison of select Airbus and Boeing aircraft (Source: Airbus & Boeing Websites)

Nr. crt.	Airline family	Max. range (nautical miles)	Max. Capacity (passengers)	Cruising Speed (mph)	Operations Strategy
1	A330-800neo	7450 nmi	252	520 mph	Rolls-Royce Trent 7000
4	A340-600	7750 nmi	419	543 mph	Rolls -Royce Trent 500
5	A350-900	7750 nmi	315	561 mph	RR Trent XWB
	B777-200ER	7725 nmi	400	560 mph	Pratt Whitney Rolls Royce General Electric
7	B787-10	7020 nmi	323	567 mph	General Electric Rolls Royce Trent

Another key element of A350XWB aircraft, for both companies and passengers, is improving efficiency in operation flights and performance by replacing small aircraft with a bigger one that can fly at the same speed as its predecessors having also a reduced fuel consumption by 25 percent, compared to its current competitor. For this, the engine manufacturer has developed a new model Trent XWB. It involves the lowest carbon emissions compared to other aircraft with the same capacity. The A350XWB aircraft fuselage was constructed of

carbon fiber reinforce plastic (CFRP), reducing maintenance costs and operating companies (Marsh, 2010). Table 2 highlights the benefits of A350 XWB companies and passengers.

The first version of the A350 aircraft in 2004 did not impressed the airlines and the leasing companies. Airbus had an unpleasant experience with the A340 aircraft which was overshadowed by its competitor Boeing with B777 aircraft launched in the 1990s. Also with customer orientation to the new Boeing 787 Dreamliner, Airbus needed to bring a new design for the new aircraft. The company designed the fuselage for a maximum capacity of 440-550 passengers (depending on version). This can be compared with the Boeing 777 and Boeing 787 Dreamliner capacity. Airbus goal was to provide additional space than its competitor models. To design restoration Airbus needed 2 years and during the subsequent development cycle, the design was delayed by more than a year. In addition the use of carbon-fiber-reinforced polymer (CFRP) utilisation was an important aspect of redesign in 2006; the original design from 2004 was planned to use a light metal skin. Table 2 provides a summary of A350XWB aircraft benefits for airlines and their passengers.

Currently, Airbus is a leader on the commercial aircraft market having more than 50% share. It is also the second largest supplier of defense and space market. After the merger of the four divisions of the company (Cassidian, Astrium, Airbus Military and Defense and Space). Delays with A350 XWB production triggered a decrease in the number of orders in both 2010 and 2014 (Figure 2). In general, the orders had an upward trend at present, their number reaching 780.

Table 2. A350XWB features for airlines and passenger (Fast_Special A350, pg.5-7)

Item	Feature	Values to Airlines	Values to Passengers
1	Composite materials	Easier maintenance, easier handling, fuel efficiency, lower maintenance costs, faster cruising speed appropriate for long international flight	Faster cruising speed appropriate for long international flight Higher humidity in the cabin is allowed which increase comfort level
2	New generation, fuel efficient long range engines	Lowest specific fuel consumption engines, quieter jetliner	Lower costs for passengers, quieter jetliner
3	A comfortable and efficient cabin	Crew rest space without using revenue space, flat floor for greater comfort, wide windows	More place for passing, more luggage storage space and large panoramic windows
4	Optimized wing efficiency by design	Match 0,85 cruise speed, reduced flight time, reduced fuel burn	Lower costs for passengers, reduced flight time
5	Eco - efficiency by design	Having the lowest fuel burn engines also means lowest CO2 emissions per km, quieter aircraft	Quieter aircraft

This paper analyzes in the first part the Airbus supply chain structure and its evolution. The following section presents our analysis of the risks associated with the supply chain. The last part highlights some Airbus risk reduction strategies to accelerate development and production processes.

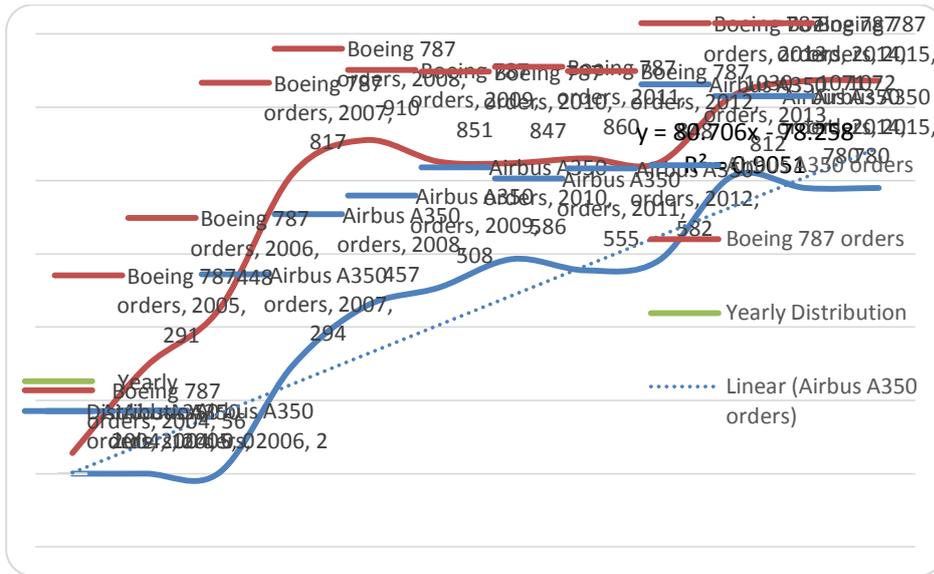


Figure 2. Airbus and Boeing orders for A350 and B787

2. A NEW SUPPLY CHAIN FOR A350XWB

For A350, the company changed the supply strategy. Airbus chose to outsource the design, the development and the production of major subsystems of the aircraft to suppliers (Figure 3). The objective of this new program A350XWB was to improve the performances of the previously A330 program by providing more space for passengers and new technologies, including a Rolls-Royce engine. To reduce the development time of new aircraft, Airbus approached a new strategy in the new supply chain, increasing complexity of outsourced components (Johnsen et. Al, 2014). Supply Chain A350XWB was designed to maintain low manufacturing and assembly cost, outsourcing a large part of the development financial risk to the Airbus suppliers. For the A380 and A330/40 programs Airbus outsourced 40% of work packages. And for the other activities the company has played the role of the traditional manufacturer of assembled components produced by thousands of suppliers. This is part of the company's strategy Airbus Power 8 rationalization program by which the company outsource work packages to suppliers, especially for those who had become risk sharing partners. Table 3 shows the evolution of Airbus supply chain.

Table 3. The evolution of Airbus Supply Chain (Airbus website)

	Supply chain A320 & A330/40		Supply chain A380		Supply chain A350	
Platform Assembly	Airbus		Airbus		Airbus	
Large-scale Integration	Airbus		Airbus		Airbus	I Tier
Value-added Parts and Assemblies	Airbus	I Tier	Airbus	I Tier	I Tier	
Make-to-print Parts and assemblies	Airbus	II Tier	II Tier		II Tier	
Raw materials	III Tier		III Tier		III Tier	

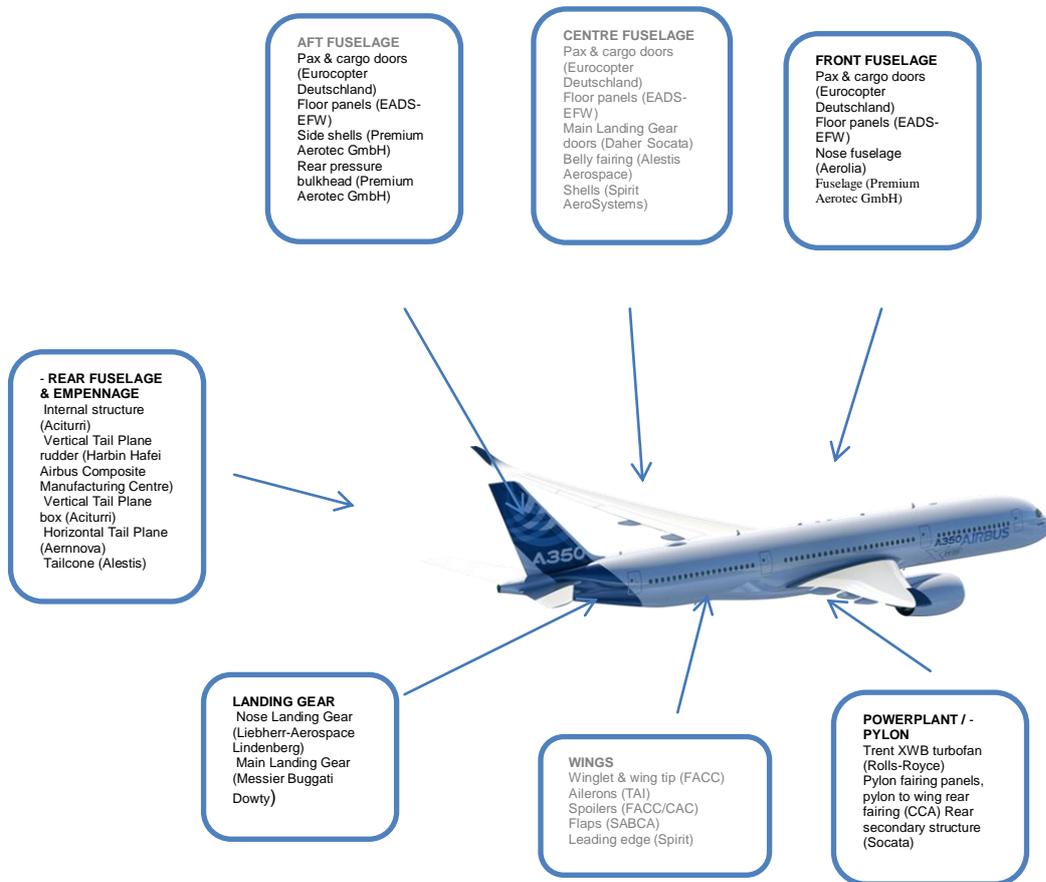


Figure 3. Main components partners for A350XWB program Source: Fast special A350XWB

2.1. Extending the outsourcing process

Airbus reduced handling costs and stock management, facilitating the distribution process by extending the outsourcing process. In the same time by increasing outsourcing of components, Airbus and its suppliers faced some issues in coordination and communication of the aircraft development process. To facilitate coordination and cooperation between Airbus and its suppliers, Airbus has implemented a new model of partnership called 'Extended Enterprise'. This partnership is aimed to identify new ways of working with suppliers. (Airbus Group, 2013, pp. 46) “Do what you can do best – outsource the rest” became a popular management saying even in Aerospace Industries (Arnold, 2013, pp. 55). Table 4 highlights the evolution of the supply chain.

Table 3. Comparison of Airbus Strategy for aircraft development programs

Component	A320 & A330/40 Program	A380 Program	A350 Program
Sourcing Strategy	Outsource 10-20%	Outsource 40%	Outsource 75%
Supplier relationship	Traditional supplier relationship (No role for integrators)	Limited role for integrators	Direct risk sharing partners (tier-1 suppliers) who can share capital expenditure, development costs and risk; A real global extended enterprise; Extended role for integrators
Number of suppliers	Many direct partners (about 300 suppliers)	Fewer, but still many direct partners	58 direct partners
Supply contracts	Design to print of parts and sub-assemblies	Design to print of parts and sub-assemblies	Design to functional specifications of large, main components or sub-assemblies

2.2. Mitigating direct supply base

For the A350XWB project Airbus decided to scrutinize its control over the production line on each level (Sadauskas, 2013). In the A380 development program Airbus admitted that had some problems with its Tier II and Tier III suppliers. They were required to produce more complex parts than they had before. Airbus has selected 58 direct suppliers to coordinate 128 design-and-build work packages for A350 XWB. To reduce development time and costs for the A350, the work packages were divided into three categories: aerostructures, systems and cabins (Airbus Group, 2013, pp.48). Mitigating the supply base, Airbus could focus on the development and production of larger components (e.g. fuselage) with Tier 1 suppliers (pre-integration phase). It reduced work time with the second and third suppliers for procurement of raw materials or other minor problems. Airbus aim of this change was to empower its strategic suppliers to develop and produce various sections in parallel, to reduce development time.

2.3. Reducing financial risks

Under the A350XWB program, Airbus introduced a new risk-sharing contract considering three main aspects of procurement policy: (1) allocation of comprehensive and integrated work packages; (2) early involvement of suppliers in the process; (3) closer collaboration with suppliers (Airbus Group, 2013). This type of contract was intended to stimulate suppliers to collaborate and develop their development efforts. With the new supply policy, suppliers have more autonomy on the components development. They are responsible for the development and certification tests of work packages, which they are validated by Airbus. The suppliers are involved into the development process 12-18 months earlier than before. They are selected from concept phase to help on defining and developing new systems and components for aircraft. This type of implication have positive effects on quantitative and qualitative improvement of performance of the development program, reducing costs and development

time and production. A risk sharing partnership with suppliers necessarily involves a participative sharing in the project, with rights to future sales income of products.

3. SUPPLY CHAIN RISKS FOR A350XWB

The A350XWB development program is based on lessons learned from the A380 program and its competitor 787 Dreamliner (Bashkara, 2014). There are various risks underlying the supply chain. As shown by Sodhi and Tang (2009), there are several types of risks in the supply chain, from technology to process, from demand to risks supply as well as from computer system risks to work risks. In this section, are presented some of the risks and actual events that caused major delays in A350XWB aircraft development program, and how these risks have been mitigated.

- **Airbus A350XWB fuselage:** It is made of 53% composite, 19% aluminum, 14% titanium and 6% steel. So far Airbus never used composite material on this scale, because this mixture of materials to create a plane was not considered feasible. Also, thunderbolts are a particular danger for wings made of this composite material, because lightning can be reached by fasteners wing (Wallace, 2006). The other aircraft models of the company contain from 5% composite (A310, A330 / 40) and 25% (A380, A400M).

- **Selecting engine suppliers:** One of the important benefits for aircraft is to reduce fuel consumption. Problems arise in selecting suppliers of engines which in turn need to develop products to meet the demands of large integrators. Integrators such as Airbus and Boeing are pressured by its customers, the airlines and leasing companies. In the beginning of program, Rolls-Royce offered Trent 1000 engine version. Thus, Airbus considered as option offered from General Electric, the main competitor of Rolls Royce. After reviewing the A350 aircraft development program due to the customer demands, General Electric withdrew to supply engines for the new model A350. Rolls-Royce has reached an agreement with Airbus to provide all versions of the aircraft with a new engine variant, known today as Trent XWB. Rolls-Royce is currently the only supplier for all three variants of A350.

- **Computer Network Security** The latest aircraft models A350 and B787 are using both Transmission Control Protocols/Internet Protocols (TCP/IP) technology system. It transmits a variety of digital information, passenger information and entertainment systems. However, the experience has shown that this type of technology is prone to a variety of attacks (Civil Aviation Safety Authority, 2013).

4. THE A350XWB DEVELOPMENT PROGRAM RISKS

Airbus has endeavored to maintain its plan for the A350 program, to meet customer requirements. It means that changes incorporated later into production, generated additional costs for Airbus and its suppliers. These types of changes that occurred into development program, gived enough trouble for suppliers. They in turn had to review their development process, putting serious pressure on their company's engineering and finances resources. The suppliers received detailed design tasks from Airbus in order to facilitate their fulfillment. Also, Airbus and its first-tier suppliers were based on smaller suppliers. They faced with the production of more complex parts and a pressure on them to start production as soon as possible (Haria, 2014). To help them, Airbus sent teams of engineers and technicians to provide technical advice and to minimize delays that have created some bottlenecks in the program. In other cases the Airbus provided additional financial support to maintain the work of suppliers. The management team of the Airbus was even forced to purchase some of its suppliers to avoid any disturbance in the supply chain and to ensure the realization of the project just as effective as possible.

4.1. Risks of production process

Large delays appeared due to such development processes as: development and assembly components for wings, fuselage design completion. In case if the delivery of a section is delayed, the entire delivery schedule is also delayed. Also under the risk-sharing contract, none of the strategic partners are not paid until the certification of the first aircraft for flight. In this case Airbus sent teams to solve problems related to the supply and production of their external partners.

4.2. Risks of management process

As mentioned above, the first-tier suppliers are fully responsible for the entire scope of work packages, including their supply chains. Accordingly, the delivery time is quite tight, which can affect the entire value chain of A350 program development. Due to new challenges Airbus has acquired and invested into the new technologies and production processes. These technologies are very different from those used in previous aircraft programs.

4.3. Risks jobs and labor protests

Expanding the outsourcing process by Airbus, Airbus employees became worried about their job security. The decision of the company to eliminate 10,000 jobs in 2007 and sell as many as six factories over the next three to four years, stopped work for two hours from four manufacturing facilities in France by 14,000 employees. There were also protests in Germany units. This decision to reduce the number of employees were aimed to save billions of euros for Airbus. Airbus faced costly delays in the production programs development for A380 and A350. Also the company confronted strong challenges from Boeing and a decreasing profit resulting in part from a weak dollar (Clark, 2007).

4.4. Demand Risks

Airbus was determined to avoid in the case of the A350 program any recurrence of the production delays and problems, based on lessons learned from previous program A380. However, there were some problems with the supply chain. They appeared because of the introduction of the new innovations that represents a step-change in technology. Thus, some of Airbus customers began to cancel the orders for the new aircraft. Some of them explained that the reason for giving up was a re-look at future fleet requirements (Cushing and Mahlich, 2014). The delays in the production of A350 XWB triggered a cumulative decrease in the number of orders in both 2010 and 2014.

5. MEASURES TAKEN BY AIRBUS TO MITIGATE THE RISKS

Based on criticism of some Airbus' biggest customers such as International Lease Finance Corporation (ILFC) and GE Capital Aviation Services (GECAS), thus Airbus proposed a new design with of a wider fuselage. It provides more space for passengers and crew (Harty, 2013). To reduce maintenance costs, the company decided to switch the fuselage frames from aluminium to composite materials for the aircraft structure. Also, to retain the electrical continuity with the switch to carbon fibre according to A350XWB program chief engineer Gordon McConnell, Airbus decided "to fit metallic strips around the frames, which gives an equivalent electrical network to a metallic frame"(Kingsley-Jones, 2007). The composite materials reduces the weight of the aircraft and maintenance costs while offering higher cabin pressure and humidity. The company also reached an agreement with Rolls-Royce to develop a new engine variant for A350. The engine name is Trent XWB.

5.1. Supply chain risk mitigation

Some of the strategic partners were faced with financial difficulties. Also, problems in managing the second level suppliers to develop the necessary components, Airbus has recognized the need to regain control of the development of the A350 aircraft. For example, knowing that PFW Aerospace AG has faced a liquidity squeeze because of the delays in the production chain, Airbus decided to buy some of its shares. According to Airbus head of aircraft programmes, PFW Aerospace AG is “a critical supplier” for Airbus, including on the A350 XWB development (Hoffman, 2011). Moreover, due to production delays, some Airbus suppliers could get a significant profit loss. For example, a Spanish producer Alestis Aerospace SL, Airbus components supplier, has faced a cash crisis due to the banking crisis in Spain. In this case Airbus paid the outstanding bills of Alestis and also monitored Alestis's suppliers to ensure they get paid promptly (Michaels and Crowe, 2012).

5.2. Minimizing the risks of production process

Some suppliers had production problems. To help them, Airbus sent specialists to supervise the production process. This approach proved to be expensive. Airbus staff had to solve the supply and production problems of their suppliers. In certain circumstances, Airbus decided to purchase some of its suppliers. This decision was taken to avoid any disturbance in the supply chain and to ensure achieving more efficient A350XWB project.

5.3. Mitigating risks management

Airbus developed special relationships with suppliers to anticipate and mitigate potential problems. Airbus introduced a new approach to develop new ways to work with the suppliers known as "Extended Enterprise". A description of each supplier was made, showing its capabilities in terms of program management, engineering, configuration management, quality management, supply chain and logistics. Operating performance was also verified in terms of planning and achieving their goals. The aim of the company transformation plan is to align priorities between Airbus and supplier and to create a long-term partnership (Airbus Group, 2013).

5.4. Mitigating labor risks

Airbus has reached an understanding to develop a future agreement providing job security until 2020 (Zimmermann, 2011). This was aimed to put end of the strikes after months of negotiations with unions. In the new agreement, measures to improve competitiveness, few temporary contracts, better training have been mentioned. Also, there would be no compulsory redundancies for the duration of the contract. The current level of employment of permanent staff and basic tasks were maintained at the units from Bremen, Buxtehude, Hamburg and Stade.

5.5. Reducing the risk of losing customers.

In order not to lose confidence of the customers in the ability of Airbus aircraft development, the company decided to revised the new aircraft. Redesigning took some time to reach the finish line and had a warmer reception, airlines and leasing are interested in purchasing it. The duration of the redesigning was about two years. In the subsequent development cycle, the design process was delayed by more than a year. Delays in the production of A350 XWB was a cause of a decreasing in the number of orders. But, Airbus managed to come back on an upward trend.

6. CONCLUSION

The paper analyzed the risks associated with supply chain for A350XWB and the mitigation strategies applied by Airbus. There are several conclusions which can be considered in the management of the supply chains.

- The main problem of the A350XWB program problem was named by the rush to bring the aircraft on the market. The new aircraft model was criticized by several major prospective customers and Airbus decided to redesigned the aircraft. In addition the new strategy, increased complexity of components to assume new roles and responsibilities of suppliers. If Airbus have had a team that is able to identify and assess potential risks in the supply chain, it would have helped to develop and introduce several strategies to mitigate or avoid the risks.
 - Improving collaboration between the company and unions is essential for effective implementation of new initiatives, including the launch of new development programs. Also is important Airbus to have a clear communication about the new strategies adopted. Thus, the company's employees or unions representing employees can avoid protests in the workplace.
 - To perform selection of the key supplier carefully, a company should consider to exchange accurate information in a timely manner. In addition, the company has to ensure that the selected supplier has the necessary capacity and commitment to fulfill the task. It is extremely risky to manage a new project overly rely on IT communication. Companies should strive to achieve complete visibility of the supply chain, to mitigate risks arising from the new partners. A clear vision of the supply chain would enhance the ability to take corrective action quickly. More likely this action reduces the negative impact of an interruption in the supply chain.
 - It is essential to give a guarantee for curent expectations of customers regarding the development of new products, in particular on the delays caused by different types of risks. During the development phase, it is advisable to maintain an open and honest communication with customers. These efforts could possibly improve customer long-term loyalty.
- In the A350XWB program development, Airbus has introduced a number of changes in the supply chain from traditional methods used in the aerospace industry. The main change is the outsourcing of more complex components. This involves significant potential for encountering risks throughout the process. Airbus's ongoing issues with meeting the criticism of customers are a direct result of rushing to bring the aircraft on the market. Other direct results are the design, the development process, and the supply chain associated with the A350XWB program simultaneously without having the proper management team in place. Many risks were late realized to develop coherent strategies for mitigating them. To avoid problems created in aviation supply chains, the attention of management teams is indispensable. Analyzing the way that Airbus handled the issues from the supply chain, there are some lessons for managers in any industries that can be learn.

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CURRENT ISSUES OF LOCAL SELF-GOVERNMENT FINANCING IN THE REPUBLIC OF SERBIA IN THE PROCESS OF DECENTRALIZATION

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ABSTRACT

Local self-government is an important component of contemporary democratic systems nowadays, as various economic and civil rights are secured within. A significant issue that arises from a fiscal reform process in modern states is to determine an optimal level of decentralization and financial instruments of local self-governments pursuant to the international standards and principles of clarity, justice, efficiency and transparency. In the complex reform process in the Republic of Serbia it is necessary to implement, like in developed countries, modern systems of financing new competences of local self-governments, i.e. to establish proper political, economic and fiscal balance between authorities at different levels. When amending rules and regulations and implementing efficient funding systems of local self-governments in Serbia it is necessary to observe the guidelines of European Charter of Local Self-Government in order to define and implement flexible, dynamic and effective models of managing and funding local self-government in the Republic of Serbia in the process of transition and accession to the EU. It is very important to reach political consensus in long-term on defining optimal reform strategies for local self-government in order to create conditions for developing entrepreneurship, strengthening cooperation with private sector and attracting foreign investments in local self-governments.

Key word: *financing self-government, fiscal decentralization, own source and shared resources, transfers, European Charter of Local Self-Government and the Republic of Serbia.*

1. INTRODUCTION

Today local self-government has become the main focus of permanent interest of legal, economic and political sciences. Main economic and civil rights are secured in this important institution of contemporary democratic systems. This institution as the main form of political organizing in the system of public consumption is a significant component of modern democracy. A difficult issue in a reform process is to determine the patterns and levels of decentralization in running public affairs. It is necessary to establish optimal political, economic and financial balance between the central government and local self-governments in the Republic of Serbia. At the same time recently there have been constant changes in competences and funding systems, especially with regard to defining the frames of public affairs, legal and financial independence of local self-government. In the process of local self-government reform in the period of transition and accession to the EU it is necessary to

consider new international standards, principles alongside with specific legal, economic, political and sociological conditions in the Republic of Serbia. In that respect some definitions in European Charter of Local Self-Government that affirm the principles of efficiency, decentralization and transparency in a public consumption system are very applicable. It implies creating a new democratic system where defining priorities and meeting needs in public consumption are based on citizens' rights.

2. MAIN GOALS OF LOCAL SELF-GOVERNMENT FUNDING REFORM IN THE REPUBLIC OF SERBIA

Meeting public needs at an optimal level of territorial organization is a major goal of fiscal reforms, which implies providing sufficient amount of public resources for successful running of LG complex affairs. It demands implementation of modern organizational LG models based on the new approach of economy and citizens to public needs and modern information systems and strategies of e-business. Local self-governments have a new status in democratic states, pursuant to their responsibilities and competences in public consumption and sustainable growth. Due to the lack of universal models it is very important to respect specific social-economic conditions in the Republic of Serbia in order to meet public needs efficiently at certain levels of government in the Republic of Serbia. It is undisputable that the reform embraces the principles of European Charter of Local Self-Government, but to create an efficient model the effects of normative changes in fiscal practice of local self-government have to be monitored all the time, particularly the effects of financing complex activities. In that respect various organizational models of local self-government in modern states have to be studied in order to perceive an efficient, flexible and dynamic model of LG management in Serbia. Today there are various issues in decentralization processes, i.e. delegation, deconcentration, deregulation and privatization in public consumption. When defining the main directions of the local self-government reform in the Republic of Serbia it is useful to analyze different mechanisms of policies' coordination in local self-government in EU states (Giosan, 2011).

The main efforts in a fiscal reform are targeted at a taxing system pursuant to economic power of tax payers in local self-governments, expanding its own resources, increasing fiscal capacity, optimally outlining transfers and creating conditions for developing entrepreneurship and investments in a transparent system of public consumption. In the process of fiscal reforms it is useful to observe LG financing models in developed countries in transition and economic, financial, social, political and other specific features in the Republic of Serbia, respecting the standards and principles of European Charter of Local Self-Government which provide local authorities with financial independence pursuant to their competences in certain states (Savet Evrope, *Evropska povelja o lokalnoj samoupravi*, 1985). LG financing reform is a complex issue of a modern economic and financial policy. In the world local self-government has been given more and more responsibility and independence with regard to defining and disposing of public consumption, which demands defining an optimal degree of fiscal decentralization. In the process of transition and accession to the EU some issues such as transparency, decentralization, competence and how to finance local self-government are becoming burning. Across the world there are visible differences in normative regulations and methods of financing local self-governments that might be useful to study in order to implement an optimal system that can meet specific needs of the Republic of Serbia. Naturally, a critical issue in this process is transferring fiscal sovereignty and competences in the process of decentralization, which establish the grounds for developing democraticness, efficiency and flexibility of a fiscal system that is adjusted to the needs of companies and preferences of citizens in local self-government. In the new model of allocation of public

resources between different levels of government there is an emphasis on achieving vertical and horizontal balance among various competences and the amount of public revenues of local self-governments. It implies both passive and active financial standardization in different systems of public revenues allocation. The reform process requires building a partnership between the central government and local authorities, while at the same time pursuing regional development goals.

The local self-government reform has an important role in the process of transition of the Republic of Serbia into a modern democratic, economic and information society. Naturally, in order to address public needs of the economy and citizens in an optimal way it is necessary to insist on the implementation of entrepreneurial concept of strategic management in local self-government in the Republic of Serbia. Transitional and fiscal reforms are especially important in the period of accession to the EU.

3. LEGAL BASIS FOR LOCAL SELF-GOVERNMENTS IN THE REPUBLIC OF SERBIA

In modern states various legal bases for public administration on federal, regional and local levels have been defined. In that respect the central government and lower levels of government have different competences in the system of public consumption. Recently public administration has constantly been reformed particularly in the aspect of decentralization and the system of LG financing. The reform process embraces the principles of functional and economical management in local environments. Local self-government systems have some common characteristics, alongside with various specific features regarding decentralization, territorial organization, competences, financial autonomy and administrative structures in certain transition countries.

The Law on Local Self-Government stipulates in details the competences of local self-government units and it supports a decentralization process pursuant to the principles ratified by European Charter of Local Self-Government. In the process of decentralization an aim is not only to transfer competences straightforward from the central to local government levels, but to achieve quality fulfillment of public needs of economy and citizens in an optimal way. Naturally, efficient performance of core activities of local self-government (administration, providing and developing communal services, defining municipal construction sites, disposing of business premises, construction and maintenance of local roads and streets, jobs in education, culture, social protection, crafts, tourism, catering industry etc.) and of assigned tasks (with the transfer of the proper amount of public resources) implies providing funding resources for local self-government.

The legal bases for financing local self-government are outlined in the Law on Public Revenues and Expenditures, Law on Local Self-Government Financing, Budget Law and other regulations in the area of fiscal policy. Thus the Law on Local Self-Government Financing precisely stipulates own source (self-generated) public revenues of local self-governments, whose power is to determine the amount of local fees, rate of wages and public revenues. In addition, the revenues of local self-governments coming from higher government levels are determined. Non-earmarked annual transfers of local self-governments that are 1.7% of GDP set the framework for defining equalization transfers, based on the precise criteria (Službeni glasnik RS, Zakon o finansiranju lokalne samouprave, 2014). Losses caused by regulatory changes are covered from compensatory transfers. In addition, the grounds for assigning transition, i.e. solidarity transfers to local self-governments are also defined. The new system of local self-government financing has been outlined in amendments to the Law on Local Self-Government Financing in the previous two years. The amendments refer to the allocation of solidarity transfers, as a part of overall non-earmarked transfer, to

local self-government units, pursuant to their development level (apart from Belgrade City), then to the abolition of certain local communal fees for display of a company's name, increase in the share of income tax that is charged according to employees' place of residence (80% to local self-governments and 70% to Belgrade City), designating the overall annual amount of non-earmarked transfer (1.7% of GDP), criteria for determining general and solidarity transfers for local self-government units etc. It can be concluded that in the last decade there has been a tendency towards a more efficient system of organization and methods of local self-government financing in the Republic of Serbia, modeled on developed democratic systems. Responsibility and transparency of local self-government procedures are improving, however coordination between public authorities within the system of vertical and horizontal coordination remains insufficient, especially in the normative area and adopting procedures of economic policies. Nevertheless it should be pointed out that main issues in the decentralization process arise from insufficient sources for financing local self-government competences. Thus a critical issue is to define adequate financial sources at different levels, particularly when the fiscal system is undergoing a change in the period of the EU accession. It indicates to the need of constant monitoring, i.e. to the analysis of normative changes effects in the decentralization process, in order to establish an optimal model for efficient fulfillment of economy and citizens' public needs in local self-governments.

In modern local self-governments in the Republic of Serbia, which meet the economy and citizens' needs and sustainable development targets, it is necessary to determine precisely optimal sources of public revenues, so that they can become, as in developed states, most important factors in managing economic, financial, political and social systems. Naturally optimal decentralization depends on the roles of governments at different levels. In the process of vertical and horizontal decentralization, i.e. competence transfer, administrative decentralization, competence delegation and privatization in the public sector, the role of local self-governments in the Republic of Serbia has to strengthen in accordance with international standards and principles. Providing stable financial sources becomes an imperative of the time, because local self-governments assume a significant role in the system of public consumption, tackling an unemployment issue, private-public cooperation, attracting foreign investments and achieving microeconomic goals. LG reforms are aimed at respecting public service quality, market principles and monitoring the effects of investment project implementation. Entrepreneurial local self-governments have an important role in creating favorable conditions for doing business, raising the standards of citizens, developing small and medium-sized businesses, implementing projects in cooperation with private sector and attracting foreign investments. Therefore, in the reform process an emphasis must be on a higher degree of local self-government financial autonomy and embracing economical, efficient and democratic principles. The decentralization process should result in better quality of public services in accordance with the interests of the economy and citizens in the Republic of Serbia. Efficient management implies a higher level of citizens and economic subjects' participation in public consumption, rule of law, reliability, efficiency and transparency of the system and social consensus on transitional reforms in the period of the EU accession.

With the purpose of having the economy and citizens disburdened and public finance consolidation in 2012 amendments to the Law on Local Self-Government Financing were adopted, which stipulate precisely own source revenues of a local self-government generated on its own territory (Article 6), stipulated maximum amounts of local communal fees for display of a company's name and advertising boards and holding motor vehicles and trailers. The legal practice before that was marked by legal insecurity of tax payers regarding certain fees, set on unrealistic criteria in some areas. Hence, maximum amounts of certain local communal fees are stipulated in order to stop their growing trend from the previous period. At

the same time certain local communal fees are abolished. This law has also developed criteria for allocation of solidarity transfers to local self-government units. The solidarity transfer pursuant to these criteria is allocated apart from Belgrade City also to other local self-government units. The amount of the solidarity transfer per local self-government units is determined according to the development level of the unit pursuant to the uniform list stipulated by the Regional Development Law (Službeni Glasnik RS, Zakon o regionalnom razvoju, 2010). Local self-government units in IV Development Group are allocated 50% of the solidarity transfer resources, while 30% of the resources is allocated to the units of III Group and 10 % of the resources is allocated to the units of I and II Group per each.

The law provides conditions for realistic and economically justified definition of the mentioned communal fees in local self-governments, so that tax payers have an equal position in different local self-governments. Reduction in the amount of fees and equal burden of tax payers result in better legal security and development of entrepreneurship and investments. Losses of local self-governments due to these amendments will not affect their overall revenues in the following period, because it has been said since the end of 2011 local self-governments share in the revenues coming from income tax has increased from 40% to 80%, i.e. Belgrade City from 40% to 70%. The effect of this increase in 2012 was 40 billion RSD in total revenues of local self-governments in the Republic of Serbia. In addition, the effect of raising the revenues of local self-governments according to this criterion also resulted in the growth of these revenues by about 108% in the first half of 2012 in comparison with the same period in the previous year.

4. MODERN SYSTEMS OF LOCAL SELF-GOVERNMENT FINANSING

Fiscal reforms should be aimed at creating an efficient model where different levels of government operate in an optimal and parallel way. In modern practice local self-government has different powers in the system of public revenues and expenditures on a certain territory. In complex systems and mechanisms competences of central government, regions, provinces and local self-governments are overlapping. At the same time, various instruments for LG's protection against central government are devised. Modern local self-government must have an optimal degree of autonomy for defining and disposing of public revenues on a certain territory, which means that local authorities have a power of decision-making over revenues and expenditures. The decisions refer to collecting optimal amounts of revenues for financing core competences, as well as to the methods of financing infrastructure through disposal of revenues, making public-private partnerships, borrowings etc (UN Habitat, 2009, p.1). It adds to eliminating negative consequences of centralized and bureaucratic decision-making and creating modern democratic systems. Today local self-government is an important subject of interest of international law. In that respect European Charter on Local Self-Government represents a very significant international legal document which protects its current competences and fundamental values. The main principles of the Charter are embedded in national legislature of modern states. Providing local self-governments with sufficient amount of elastic and various public revenues is very important. In the reform process it is a key to provide non-earmarked character of transfer sectors and financial equalization of local self-governments. Modern fiscal systems are governed by the subsidiarity principle, embraced by European Charter on Local Self-Government, according to which public affairs should be performed at the optimal level of government closest to the citizens in local self-governments. It means that the central level of government performs only those tasks that lower territorial units and local self-governments cannot efficiently conduct. Determining to what extent a certain territorial unit can exercise the competences causes numerous problems in some states.

The total public revenues of LGs from 2006-2009 were from 136.3 billion RSD (2 billion EUR) in 2006 to 183.1 billion RSD in 2008 (3.3 billion EUR) (Brnjas, 2011). The total public revenues of LGs per capita in the same period were 263 EUR in 2006, 357 Eur in 2007, 436 EUR in 2008, and 311 EUR in 2009. (Table 1)

Table 1: Total public revenues of LGs in the Republic of Serbia from 2006-2009 (Brnjas, 2011)

		Generated in billions of RSD			
		2006	2007	2008	2009
1.	Shared revenues	69,9	61,0	67,7	65,2
2.	Transfers	21,4	35,5	41,4	29,1
	- non-earmarked	16,8	29,9	36,2	23,2
	- earmarked	4,5	5,6	5,2	5,9
3.	Own source revenues	39,6	57,1	66,6	61,8
4.	Earnings	5,5	5,6	7,4	9,0
	Total (revenues + earnings)	136,3	159,3	183,1	165,2

The overall public revenues of LGs from 2010-2012 were from 177.1 billion RSD in 2010 to 235.5 billion RSD in 2012 (Table 2).

Table 2: Total public revenues of LGs in the Republic of Serbia from 2010-2012 (Bilten javnih finansija, 2013)

		Generated in 000 RSD		
		2010	2011	2012
1.	Shared revenues	67.832.982	84.052.977	121.029.777
2.	Transfers	35.957.831	40.054.922	43.451.722
	- non-earmarked	25.681.000	29.265.650	33.204.289
	- earmarked	10.276.831	10.789.272	10.247.433
3.	Own source revenues	73.377.077	71.634.432	71.084.770
	Total revenues	177.167.889	195.742.331	235.566.268
4.	Earnings from selling non-financial property	76.870	118.426	1.271.725
5.	Earnings from borrowing and selling financial property	15.817.412	21.344.982	12.339.808
	Total (revenues + earnings)	193.062.171	217.205.739	249.177.801

Table 3 shows the structure of the overall LGs revenues from 2006-2012.

Table 3: Structure of the overall LGs revenues in the Republic of Serbia from 2006-2012
(Bilten javnih finansija, 2013)

		Structure in %						
		2006	2007	2008	2009	2010	2011	2012
1	2	3	4	5	6	7	8	9
1.	Shared revenues	51,3%	38,3%	37,0%	39,5%	35,1%	38,7%	48,6%
2.	Transfers	15,7%	22,3%	22,6%	17,6%	18,6%	18,4%	17,4%
	- non-earmarked	10,7%	15,4%	16,1%	12,0%	13,3%	13,5%	13,3%
	- earmarked	2,9%	2,9%	2,3%	3,0%	5,3%	5,0%	4,1%
3.	Own source revenues	29,0%	35,9%	36,%	37,4%	38,0%	33,0%	28,5%
	Total revenues	96%	96,5%	95,9%	94,5%	91,8%	90,1%	94,5%
4.	Earnings from selling non-financial property	4%	3,5%	4,1%	5,5%	0,0%	0,1%	0,5%
5.	Earnings from borrowing and selling financial property					8,2%	9,8%	5,0%
	Total (revenues + earnings)	100,0%	100,0%	100,0%	100%	100,0%	100,0%	100,0%

According to the structure of the overall LGs revenues in the Republic of Serbia from 2006-2009 shared revenues had the biggest share (51.3% in 2006, 38.3% in 2007, 37.0% in 2008, 39.5% in 2009). The share of own source revenues in this period was from 29% in 2006 to 37.4% in 2009. The share of transfer resources in the same period was from 15.7% in 2006 to 22.6% in 2008. The structure of the overall LGs revenues for the period 2006-2009 shows a declining trend in the share of shared revenues and a rising trend in the share of own source revenues. At the same time there was an increasing trend in the share of public revenues coming from borrowings and property selling. In this period there was a growth in non-earmarked transfers per capita in III and IV Groups of local units. It should be noticed that in this period a number of LGs rose in I and II Groups and declined in III and IV Groups.

The share of shared revenues in the total revenues in the period from 2010-2012 was from 35.1% in 2010 to 48.6% in 2012. The share of transfers in the total LGs revenues in this period was from 17.4% in 2012 to 18.6% in 2010. The share of own source revenues was from 28.5% in 2012 to 38.0% in 2010. In the period from 2010-2012 there was a trend of relative growth in the share of shared revenues, partially relative decline of transfers and own source LGs revenues.

In the period from 2006-2012 there was a growing trend of overall revenues (82.7%), shared revenues (72.8%), transfers (103%), and own source LGs revenues (77.5%). In the period from 2006-2010 the growing trend of transfers was more evident than the one of shared and own source LGs revenues.

5. FISCAL DECENTRALIZATION IN DEMOCRATIC SYSTEM

Fiscal decentralization is a quite burning issue in modern states. It opens up new opportunities for more efficient providing of services in the system of public consumption. Decentralization degree depends on various economic, political, financial, social and cultural factors in certain states. Fiscal decentralization as a result of political reality and a tendency towards administering a more efficient system of public consumption is based on international standards and principles. It provides more efficient allocation of economic resources and optimal fulfillment of needs in a transparent system of public consumption. An obstacle in fiscal decentralization process is corruption in local self-governments in some states. In new models political influences need to be eliminated while transfer of competences must be conducted in a completely clear and transparent way.

Decentralization issues are quite evident in transition countries. Across the world there are numerous rules and principles for determining an optimal degree of decentralization. Thus both in theory and practice there aren't reliable answers to what an optimal extent we should separate fiscal responsibilities at different levels. Theory deals with the relation between decentralization degree and basic macroeconomic indicators. Optimal fiscal decentralization must embrace existing institutional environment, economic parameters and international standards and principles. It implies overcoming the existing state in the area of normative regulations and inefficient management in local self-governments. Successful reforms of a fiscal LG system demand adhering to international standards and principles in sustainable growth and achieving balance between different targets of structural reforms in the period of transition and the EU accession. In a reform process an emphasis must be on defining realistic strategies and on the right order of conducting fiscal reform stages.

Efficient allocation of competences is an important issue in modern decentralized fiscal systems. It shows a specific method of meeting public needs and targets of stabilization and development at different government levels. In democratic systems there is a tendency towards horizontal and vertical equalization of territorial LG units. To strengthen local self-government in Serbia and improve the mechanisms of vertical and horizontal coordination we must consider new recommendations regarding institutions, politics and legal procedures (Giosan, 2011, p.49-57). Horizontal equalization is conducted between territorial units at the same level, while vertical equalization is conducted at different levels of government in modern states. In order to determine an optimal level of decentralization it is necessary to embrace the principles of efficiency, justice, transparency and economic stability. Today, responsibility in a public sector is more and more transferred to local self-governments, which indicates to the necessity of implementing an efficient financing system. Regulations grant new powers to local self-governments with respect to imposing, controlling and collecting tax revenues (Koman, P., et al, 2002, p.365-376). It implies defining new sources of funding LGs, that have complex competences over communal systems, disposing of construction sites and agricultural land and business space, maintaining local roads, local transport and various needs in the areas of education, health and social protection, culture and sports, environmental protection, tourism and catering industry. The Law on Local Self-Government Financing and the Law on Public Revenues and Public Expenditures stipulate precisely LGs expenditures. An efficient LG financing system embraces the principles of fiscal independence and solidarity, financing balance and entrepreneurial development. Naturally a financing system in different countries is affected by various specific features of the countries, mostly by economic and social characteristics. An imperative of the time is to reduce the share of transfer resources, i.e. to raise the share of own source revenues in total public LG revenues.

Local self-governments in the Republic of Serbia, in accordance with international practice, have a power to determine bases, rates and systems of collecting their own source public

revenues. The main sources of own source public revenues are property tax (with some exceptions), local, communal, administrative and residential fees, income from selling and renting, real estate, donations, concessions etc. It should be mentioned that in practice there used to be different models for defining local communal fees and fees for construction land development and disposal. In addition, a system of LG borrowing has been regulated.

In the reform process it is necessary to define and apply a modern LG financing system aimed at strengthening entrepreneurship and attracting foreign investments. In the new system important sources of local revenues are concessions, donations and income from renting. In that respect it is necessary to expand the area of concession rights within LG competences in Serbia. LG borrowings aimed at financing capital investments in the Republic of Serbia is regulated pursuant to the principles of European Charter of Local Self-Government. Public debt has become an important instrument of a fiscal policy at local level too. Local self-governments get into debt by taking out loans or issuing securities, which implies implementation of new mechanisms of transparent fiscal control in local self-governments.

Transfer resources (sharing a part of republic public revenues) have added to harmonization of LG financing methods. A tendency is towards even financing of assigned tasks and providing the same level and quality of public services in local environments. Thus local self-governments are assigned an income tax from agriculture and forestry and independent activities, real estate, leasing real estate, insuring persons, a part of employers' contribution on salaries, inheritance and gift taxes, as well as the transfer of absolute rights. In addition LGs have also been assigned fees for disposing of motor vehicles, mineral raw materials, forests, water, conversion fee for agricultural land and natural resources. The Law on local self-government financing embraces transfers.

6. CONCLUSION

In LG financing system reforms in Serbia in the process of the EU accession it is necessary to embrace international standards and principles of European Charter on Local Self-Government, specific social and economic conditions and the principles of democraticness and efficiency. In order to determine an optimal level of decentralization, pursuant to political decisions and changes in regulations, it is necessary to monitor all the time the effects of financing the existing and new competences of local self-governments, so as to achieve necessary political, economic, financial and fiscal balance. When determining priorities and meeting public needs of economy and citizens there should be a tendency towards providing legal and fiscal independence of entrepreneurial local self-government in the Republic of Serbia. A flexible, dynamic and efficient model of modern self-government implies implementing a new financing system, where vital importance is attached to own source public revenues, as the source of financing its complex activities. It is necessary to provide an optimal degree of autonomy of territorial units for defining and disposing of public revenues, in order to provide efficient instruments of financing LGs public expenditures, which are determined by various criteria (size and level of development, population, demographic structure, cultural inheritance and territorial specific features of local self-government). In addition, issues of LGs fiscal positions must be resolved through regional development strategies, and not only within the frameworks of LGs financing systems.

In the process of accession and transition to a modern democratic and economic society a very important role is given to LG financing in the Republic of Serbia. Complex issues of LG fiscal policies must be resolved within a financing system, regional and sustainable growth strategy. At this stage of the fiscal reforms an emphasis should be on constant monitoring of changes in own source, shared and transfer revenues, in order to eliminate problems in practice regarding financing numerous LG competences. In this respect an imperative is to provide stable fund

sources so that local self-government is able to fulfill an important role in the system of public consumption, private-public cooperation, resolving unemployment issues and living standard issues, creating favorable conditions for business, attracting foreign investments and reaching macroeconomic targets in the Republic of Serbia.

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IMPORTANCE OF MARKETING IN BANKING BUSINESS DURING ECONOMIC CRISIS

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ABSTRACT

In this paper, we explain the concept of marketing in the banking industry. Specifics of bank marketing over traditional marketing approach that we encounter in companies. What are all the specifics school marketing in the banking industry in the world today with us. In particular, we try to explain all the specifics of marketing communications that are increasingly gaining in importance in communicating with clients both between banks and companies, and between banks and individuals (clients). How much is a marketing communication today important for modern banking management and how her character is given at the present time. Bank marketing can be defined as the set of all the bank's activities directed towards the study of financial markets with the aim of meeting the needs of existing and potential customers and achieve business goals with the other hand. In addition to the commercial orientation of banks in meeting the needs of clients, marketing involves the use of many istrumenata in achieving business policy (marketing mix), and systematic treatment of the business policy (control marketing). Following all these factors that lead to that if the bank wants to maintain its market position, profitability, the clients can wait for the client to come to the bank, we come to their clients should go to meet. Banks that want to succeed must accept the marketing concept and the absolute orientation of the consumers. The main objective of each bank should be satisfied customer. One satisfied customer will always remain a consumer. One unhappy customer brings along at least five of them. Banks that have until recently had a distinctly authoritarian attitude towards their customers must reorient in kind bidders. All the more reason for this is the fact that in developed countries, there is a very large number of financial institutions that offer similar services, but often offer exceeds demand. Notwith standing this statement today, however there are a number of banks that hard to accept marketing concept. In countries in transition usually first develops the banking sector, and this is something that happened to us banking business. Thanks to the media, marketing and PR campaigns to inform citizens on a daily basis about the new banks and the various services offered by the banks. Of great importance is the adequate representation of the public banks, which must be done in the best possible way when it starts operating in foreign markets. Banks, of course, in the interest of the answers to all these questions and to present their financial institution in the best light possible because the first impression is certainly one of the most important factors of promotion. How would you occupied greater market share banks implement a series of promotional activities throughout the year.

Keywords: bank, marketing, communication, management, modern business, market

1. INTRODUCTION

Marketing in the banking industry is recent. Basically, marketing is the modern market concept of operations, business strategy, which is based on market orientation of the entire business enterprise. Therefore, marketing means of undertaking such activity in its business policy, that its measures significantly influence consumer behavior (the borrower and services) and the behavior of the supplier (depositor) and other investors.

Banking is essential to our lives, affecting the creation of jobs, living standards and saving for the future. However, banking, what we know today, rapidly turns into a completely different

activity compared with that as it was in the past. World wide, banks increasingly resemble insurance companies, institutions that trade securities, financial companies and other competitive financial authorities Set up a large holding company, increasing the number of services offered many new markets. Number of banks and their competitors are reduced by integrating the banks and the creation of a small number of large companies that are in your business much more efficient and less prone to banking. Although banking services basic element that makes the pillar of the financial system, the structure of companies that provide financial services is constantly changing.

2. TERM OF MARKETING IN BANKING

In today's conditions in the era of globalization in the contemporary market is no longer enough to have the highest quality, best product, best price, best distribution network and excellent promotion. The most important thing is how much and what about your product knows and thinks the average consumer who comes every day to the bank and perform certain banking transactions. The marketing strategy should be based on how you position in the eyes of consumers has your product compared to direct competition in the market. The success of a product or service does not depend on what you or your marketing team thinks of him. A long time ago is no longer to produce but to sell the product and charge it. Achieve this goal, each company or organization must take account of the preparation of marketing strategy and plan - establishing a brand, product or service for which companies will be recognized in the market, define the strategy. Bank marketing can be defined as the set of all the bank's activities directed towards the study of financial markets with the aim of meeting the needs of existing and potential customers and achieve business goals with the other hand. Definition and properties of generic services. According to the leading author of "service is any activity or benefit that one party provides the other and that is essentially intangible and not a consequence of ownership of something; its output may or may not be related to a physical object "[Philip Kotler: 2003].Aftre the above services vary by product. "The services that are specifically focused on the intangible assets of people, ie. their money or their wealth "[A. Palmer, 2001: 8]. Most authors considered that the services are five generic characteristics: intangibility, heterogeneity, inseparability, ephemerality and inability. Banking marketing involves researching all kinds of banking operations: active, passive and neutral. In addition to the commercial orientation of banks in meeting the needs of clients, marketing involves the use of many in achieving business policy (marketing mix), and systematic treatment of the business policy (control marketing). Following all these factors that lead to that if the bank wants to maintain its market position, profitability, the clients can not wait for the client to come to the bank, we come to their clients should go to meet. Banks that want to succeed must accept the marketing concept and the absolute orientation of the consumers. The main objective of each bank should be satisfied customer. One satisfied customer will always remain satisfied and loyal customer. Banks that have until recently had a distinctly authoritarian attitude towards their customers must be in kind bidders. All the more reason for this is the fact that in developed countries, there is a very large number of financial institutions that offer similar services, but often offer exceeds demand. Notwithstanding this statement today, however there are a number of banks that difficult to accept the concept of marketing. These banks to justify the statements "Banking is something else, financial services are different, consumers are different, the bank's staff is different - marketing just is not suitable for us," .Entering marketing business culture in some banks stems from traditional commercial banks, which is characterized by authoritarian style of leadership and communication as well as many conservative attitude towards adopting new techniques. As the five main environmental factors that affect the operations of the Bank are: the culture and

social change, legal and regulatory frameworks, technological changes, competition and ownership changes. Cultural and social changes. Changes are happening and banks as service providers and the clients. Banks are less conservative and authoritarian institutions and consumers are global consumers, a clear preference and exquisite taste. It's changing age structure of the users of banking usluga. Law and legal frameworks. Although the number of legal and regulatory constraints in the banking sector decreases, some limitations still exist. The Government through the compulsory reserves rate, the discount rate affects the performance of banks as this regulates the amount of cash and credit in changes. Technological changes have allowed the differentiation of banking services. This type of change is an opportunity and also the risk of banks. The bank must keep pace with the development of information technology, technology in general. Thanks to technology, banks have developed a whole range of new services (mail - info, sms - info, e-banking, credit card business, and many others). Without much controversy competition is the most important factor in business. It certainly determines the performance of banks. What is more difficult to reach and even harder to maintain is a good competitive position.

3. ECONOMIC CRISIS AND BANKING

The concept of crisis is an ancient concept (gr. Krisis - jam). Crises were approached about them hailed as a milestone that bring recovery or new trouble. Otherwise the term crisis is mostly used in medicine. In the science and profession it is marked a watershed in the development of disease and weakness. No matter how you set the problem, there is no doubt that the crisis of social systems and the inevitability that occur from time to time. Crisis include several stages: from delays in the expression of the previous trend, over the falls and depression, revival and enthusiasm. Given the fact that the mentioned stages are repeated periodically, similar in appearance and this is subsumed under the broader term cycles. The international division of labor forms the territorial structure of the world economy. The world economy is formed by the national economies of all countries due to trade and cultural exchange. By the mid-18th century were traded bulky goods (wood, wool, wine) at short distances. With the development of industrialization owed large amounts of raw materials (wool, cotton, mining, rubber, wood), and population growth increases food consumption. Development of transport equipment (steam engine, railroads, gasoline engine) has enabled the mass transport of cargo on longer distances. The development of industry and transport has encouraged the development of geographical division of labor - in economic exchange to include all major territories and more goods. In the last quarter of the 20th century witnessed the rapid growth of the world economy, globalization develops. Leading role in the world economy growing at major multinational companies. Coming to the territorial concentration of world power in the three main "economic half" in Western Europe (especially in the EU), North America and Asia tihookeanskoj. They account for about 85% of world production and exports of goods and services, 20th century begins the disintegration of the European colonial system (decolonization), and at the end of this century socialist countries transition to a market economy (transition). The growing mutual dependence between countries east, west and south. This process is known as globalization. New communication technologies shorten the time for the exchange of goods, information and services. The second half of the 20th century formed the single world market of goods, services, capital, labor. One of the most important elements in the global market, the economic ties - trade, currency and financial operations, tourism, communications services. Today's global market global system of balanced relationship between supply and demand of natural and economic resources. The functioning of the world market is complicated by the activities of various specialized firms, companies, national economies or their groups. Beginning of this chapter we'll do a little

historical section of the global economic crisis. The emergence of modern economic crisis linked to the beginning of the 20th century and the emergence of the Great Depression. This great economic crisis hit the world as a whole. The Great Depression (also known as the Great Depression) is a global economic meltdown that began in 1928 and lasted until 1939. It was the longest and sharpest downfall who has ever experienced the industrialized Western world. She began to decline in the United States stock market on October 29, 1929, a day known as "Black Tuesday", resulted in a drastic decline in output, the dramatic rise in unemployment and acute deflation. But neither cultural and sociological consequences were no less destructive, especially in the US, where the great depression after a devastating impact on society was in second place, immediately after the Civil War. Gold standard, which is closely linked all the countries of the world in a network of fixed exchange rates, played a key role in the transmission of the US economic downturn to other countries. The recovery from the Great Depression was largely fueled by the rejection of the gold standard and the policy of fiscal expansion (and monetary, although monetary policy at that time was not yet fully determined), which would not be possible in terms of the gold standard. The Great Depression led to fundamental changes in economic institutions. Some authors consider the most recent occurrence, "the financial crisis as the collapse of the financial markets in which amplified the problem of incorrect selection and moral hazard, so that the financial markets are not able to effectively direct resources to those who have the best investment projects" [Mishkin, F. 1992. No. . 2] ". The latest economic crisis has again emerged in the West - in the United States. From there it spread to the whole world, even in Serbia, which is already twenty years before that was in the general crisis.

4. MARKETING MIX IN BANKING TODAY

Marketing mix product contains the following four elements: product, price, place and promotion. The marketing mix of services, there are three additional elements, namely: people, processes and physical environment Stages of marketing in banking:

- 1) Marketing is the promotion
- 2) Marketing cozy environment
- 3) Innovation banking services
- 4) The positioning of the bank
- 5) Planning, analysis and control of business activities

According to the leading author of "service is any activity or benefit that one party provides the other and that is essentially intangible and not a consequence of ownership of something; its output may or may not be related to a physical object "[Kotler, Wong, Saunders and Armstrong 2007: 625].

Bank is marketing, marketing involves the use of a multitude of instruments in achieving business policies or marketing mix, as marketing involves researching all kinds of banking activities that banks are doing today: active, passive and neutral. In addition to business orientation on meeting the needs of customers, which forms part of philosophers well as the systematic treatment of the business policy, which is a marketing management. When it comes to banking marketing mix, it is necessary to note that, due to the fact that these are services, within it, in addition to traditional "4P" elements: product, price, place and promotion, it is necessary to apply a broader way of thinking, exactly in line with the great role of people in the quality of service and satisfaction, and due to the impact of the service process and service environment [Veljkovic, S., 2009: 52].

Respectively, these four elements can not meet the needs of managers for managing the bank, and therefore the need for service businesses need to use the "7P" approach. Thus, the marketing mix of banking products service is an extension of the box "4P" and the basic

elements of the marketing mix (service, price, distribution and promotion) and add three - people, process and service environment. In banking, each of these elements of the marketing mix has an important role in delivering a quality service, which takes customer satisfaction services. What is extremely important when it comes to marketing in banking, and bearing in mind the characteristics of services, alignment is expected and perceived service.

5. THE IMPORTANCE OF BANKING MARKETING IN TIMES OF CRISIS

Faster development of financial operations, services imposed by the need to adapt traditional promotion of banking institutions in the continuous process of communication, which apply advanced techniques and tools of marketing mix. Previously used techniques of advertising and public relations occasional complement interactive methods of communication. Marketing activity is focused on the individual, not the institution, so that the choice of instruments and techniques easier. Communication with the client is achieved across all marketing instruments. The promotion runs through all organizational levels. For this it is necessary to distinguish between two functionally different levels of communication:

-Communication (aimed at creating an image, developing internal communication, education. For this purpose use advertising, public relations and publicity) and

-Communication at the outlets (aimed at informing, stimulating sales using all means of communication). [Vujinovic, 2011: 15]

Promotional mix of banks includes activities undertaken by the Bank announced that the value of their products and services and so encourage customers to purchase its products ie. services.

6. MARKETING IN THE BANKING SECTOR IN SERBIA IN THE TIME OF ECONOMIC CRISIS

Changes and changing ways of doing business are frequent and constant, all of this is connected with the process of globalization. What exactly is globalization and how it is essential for the economy today, and banking.

The concept of globalization can be understood and defined in different ways. "Globalization can supranational level, at the global level is changing the established political, economic, social and cultural relations. defined as the process of economic, political, social and cultural impact on an important determinant of this process is a technological development that enables spatial and temporal reduction of the world. "[Gligorić, 2007: 98]. The banking system of the Republic of Serbia consists of the central bank (National Bank of Serbia) and commercial banks. Commercial banks operate independently, for profit on the principles of solvency, profitability and liquidity.

According to the Banking Law of the Republic of Serbia: "The Bank is a joint-stock company with headquarters in the Republic of Serbia, which is licensed by the National Bank of Serbia and performs deposit and credit transactions, and may perform other duties in accordance with the law" [Banking Act, Official Gazette of RS, no. 107/2005]. According to this law and other applicable laws, banks in Serbia are still divided according to the typical types of jobs, such as exclusive investment, commercial, and the like. They deal with all banking transactions in accordance with the regulations. Control operations based on the indicators in terms of capital conducted by the competent authority of the National Bank of Serbia.

Serbian citizens have lost confidence in the banking system of the 90s, was a big problem for domestic and foreign banks. Large foreign banks since 2000, moving to conquer the then unstable Serbian market, knowing that the same market to be one of the most dynamic developing markets in the region, especially for banking transactions. Just some local banks have managed to survive. In countries in transition usually first develops the banking sector,

and this is something that happened to us. The phenomenon of foreign banks in the need for informing the general public with various segments of the banking business. Thanks to the media, marketing and PR campaigns to inform citizens on a daily basis about the new banks and a variety of services that banks. Great importance is an adequate representation of the public banks, which must be done in the best possible way when it starts operating in foreign markets. Only the emergence of new banks in the streets of another country curiosity and demands answers to the questions that are asked. Banks, of course, in the interest of the answers to all these questions and to present their financial institution in the best light possible because the first impression is certainly one of the most important factors promotion, take up as much of the market the bank conducted a series of promotional activities throughout the year.

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RELATIONS OF BRAND AND POLITICS IN TURKEY: SUGGESTIONS FOR FUTURE STUDIES AND APPLICATIONS

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ABSTRACT

Turkey, including a municipal and a presidential election only in 2014, has went through 2 general elections, two municipal elections and two presidential elections in the last 10 years and counting down on another general elections in 2015. Tensions, fierce discussions and uncertainties in the political arena, prominent during vigorous and contentious election processes, divide the electorate between two main segments of Conservative Democrats and Secular Republicans with their own sub-groups. Those conditions obviously affect consumers like anyone else. Today, a consumer is not only an individual who benefits from the products and services provided. As a consequence of sharpened political fault lines and social polarization, rising economical welfare due to the growth of the middle class and rise of the social media due to the proliferation of the Internet, consumers of today are transformed into a constituency who perceive the corporations as political players and desire to grab the power and to peruse the brands as a means to express their own identities.

*In Turkey, under the circumstances described above, the brands have to determine their attitude and course of action very cautiously as soon as a new political *état des affaires* emerge. Since the consumers perceive the brands as a vehicle to reflect their identity and being, they tend to be driven into polarization, express radical reactions and their attitudes and criticisms could get rough easily towards the brand. Vast majority yearn for and award neutral and unbiased brands that could haul them to the new situation. These expectations have pressured most corporate and brand managers for their way of action under the existing political situation and forced them to find methods to remove that restraint.*

Literature review show there are three possible approaches of attitudes and conducts the managers could adopt on “corporation/brand-politics”: (1) “affirmation,” (2) “neutrality” and (3) “opposition.” Managerial responses and current attitudes of opposing corporate and brand managers in the face of the current events as a new political situation arise, were evaluated. Corporate and brand managers have to understand current and potential customers’ political behavior, attitudes and tendencies correctly, and have to analyze well the positive and negative possible outcomes of any of those three methods above and develop appropriate marketing and reputation management strategies. Otherwise, they will not be able to prevent the potential risk and negative consequences.

In this context, the above-mentioned three executive responses are studied conceptually and theoretically. This study is an explanatory approach including the conceptual discussion on Brand-Politics. It aims to establish the subject matter and action path to prepare for future research, applications and comprehensive analyses and to provide further suggestions and a conceptual and theoretical scope. In an effort to establish within the conceptual scope, a) the conceptual foundations for brand-politics relationship; b) the methods for brand managers to tackle the problem; and finally c) the most possible feasible path; suggestions were aimed to be clarified in this study (by utilizing the existing albeit limited research available in literature).

In the section where the findings are discussed, it has been suggested that corporate and brand managers, when they face the consumer, should not act on their own political standing or bias to benefit their long-term relation with the customers and the “sustainable brand

image” they would create. In the context of three general executive attitudes possible, neutrality would be the most appropriate. In the relation between corporation (brand) and politics (ideology), to remain neutral and impartial would be the most suitable approach. Instead of a risky discourse and action in brand communications, marketing management should be able to see that non-discriminatory, funny, merry, free and all-embracing language is the most favorable and should be able to establish a mutual, circular, uninterrupted and interactive communications strategy using open, honest, and assuring content. Accordingly, the main suggestion: “In a market where political polarization and tension is high and political bearings span a comparatively wide range, and where there is mass production and mass consumption like Turkey, corporate and brand managers should adopt a stance which would not allow the rise of current polarization” has been presented, supported by other sub-suggestions.

Keywords: *Consumer Voters, Corporation/Brand-Politics Relationship, Managerial Solutions and Attitudes, Political Consumer*

1. INTRODUCTION

Turkey, for more than two years, continues to live under the shadow and effects of local, general and presidential election. In the country that gives the impression of two separate worlds and a conflict between those exist, the attitudes of these who could not move up the social ladder to the middle class and those who had succeeded in that climb differ concerning the brand names. This situation that could be regarded as free market injustice and middle class gap, results in a period where the politics is at the center of daily life. We pour our disappointments into the political arena, ready to quarrel with each other and in a harsh and brutal way nonetheless, and our debates are more on an emotional base, rather than a logical one.

It is obvious that the tension, stern arguments and uncertainties in political arena affect the consumers today. Since the consumers perceive the brands as expressions of their beings and identities, they are forced to include themselves in an extremity and start to express radical reactions, criticisms and attitudes, which increasingly become harsher. Might and power transcends from the corporations to the consumers and “**Politicized Consumer**” and “**Voter Consumer**” cases define the agenda. These cases, apart from product related reasons, could include the consideration and collective action of the politically rejected brands (Sandıkcı & Ekici, 2009).

2. THE EXTENT OF POLITICAL POLARIZATION

Middle classes, as anywhere in the world, develop, rapidly rise and its level of welfare increase and hence, the consumption increases accordingly. In Turkey where half of the population is under 30, the consumption appetites of the young population is high as well. As the middle class develop and enlarge, not only in metropolitan culture, but also in every corner and region of the country, brands become more visible and more significant. Thus, popular culture and its products that could not find niche markets, and appeal to only metropolitan culture and city dwellers, would alienate the masses that are influenced by the popular culture but have different set of values and beliefs, would become insensitive, narrowing down their target group and would assume new risks.

Psychological needs, consciousness styles and personalities of masses created by the ideologies such as liberalism, conservatism and nationalism, defined by the previous century and the capitalist modernity differentiated product and service choices. This political polarization in Turkey could be reduced to two dominating, fundamental and opposing groups, namely religious and secular groups (Başkan, 2010). The country running between the

poles of “**Developmentalist Conservatism**” and “**Statist Modernization**” has the tendency of disintegration and violence during recent years.

Kemalist, supporting modernization and westernization and city-dweller middle class (20%) Modern Secularists hold the position of “**Statist Modernization**“, while the “**Developmentalist Conservatism**” axis was formed by conservationist, religious, localist middle classes (35%), and political parties became their representatives (Method Research Company, 2014). Other political identities with smaller membership could be mentioned between these two ranges. Economical structure changed the political and class structures. 60% of the population is low class and those who have moved up to the middle class and mobility from the bottom to upper classes could be observed in all classes. Conservative middle class with a priority in socio-economical services is in the rise and the existing and established middle class is becoming stationary, tend to descend and crossing over to the higher classes increasingly become difficult. According to a study by Roman Khan et al. (2013) in New York University, conservatives are not open to new experiences in products, services and brands; they have less tolerance for complexity. Maybe for that reason, they prefer known national brands and stay away from new brands. Conservatives, who are sensitive to concepts like order, structure, affiliation and conscience, differentiate with their preferences of tradition, status quo, and disliking risks. This case, true for low-involvement, frequently purchased, low priced products (toothpaste, soap, lighter) could be different for vanity and utilitarian products.

Studies in Turkey (Kahraman, 2013) demonstrated that AB group mostly adopts “**leftist**” and “**liberal**”, DE group predominantly adopts “**conservative**” ideologies. There are also consumers interested in the “**political stance**” of the brands. The curiosity and the will of consumers to inquire about the political stance of the brands that they can relate to should not be disregarded. Because according to a study (Konda Research and Consultancy 2014), the influence of social dynamics on the brands gradually increases and for that reason, in addition to economic developments, social risks should be managed as well. That study demonstrated that political polarization contaminated life styles and one in four consumers in Turkey would not buy a brand because it does not represent his or her identity. Some define brands he or she is against as “green capital”, some as “Ergenekonist,” some as “Gezi supporter,” and some others as “Zionist” brands and the important stance for a brand is to be excluded from all these lists. Once a brand is perceived as in one of these lists, it becomes very difficult to manage that crisis. However, the strict line between the groups defined as contemporary-secular-modern and traditional and conservative is no longer strict as before and transitivity and mid-spaces between them became evident and a new multiple middle classes commenced to form. Furthermore, it is not necessary for the people who vote for the same party or share the same political views to prefer the same brand. In short, although the strict structure of political polarization continue after the election periods of the recent past, it was observed that the social polarization is in decline.

3. TRENDS THAT BRANDS COULD SELECT

This fact caused many business and brand managers, who preferred to stay impartial or picked a side by choice or by necessity, to feel under pressure and forced them to find ways to reduce this pressure. It is possible to group the orientations of managers on “**corporate/brand-politics**” under three basic topics: “**affirmation**” by being a member of a side, “**opposition**” by being completely negative, “**neutrality**” depicting being neutral;

Table 1: Options of brand managers (Created by the author)

MANAGERIAL OPTIONS	FRAME OF MIND	ACTIONS
AFFIRMATION	Those who support, accept, and hope to benefit from political polarization.	<ul style="list-style-type: none"> ▪ Hope to benefit from differentiation and conflict ▪ Create their niche in accordance with their world-view and values and position their brands accordingly
NEUTRALITY	Those who stay neutral against politicization and choose inertia, those who try not to discriminate, but still acting according to the situation.	<ul style="list-style-type: none"> ▪ Having an attitude to avoid meddling, “<i>running with the hare and hunting with the hounds</i>,” watching, waiting for, or having an opportunity to become an inclusive brand. ▪ Having no corporate or brand ideologies or values or having no open clear-cut values
OPPOSITION	Those who oppose and reject political polarization strictly, and consider politicized brands as a threat, usually fast moving consumer brands	<ul style="list-style-type: none"> ▪ Desiring to be an inclusive brand actively, to be able to serve all segments without missing any. ▪ Trying to be an inclusive and umbrella brand

Those in the first group, independent of their views, believe in the sanctity of the politics they defend and be a member of so much so that they do not even bother to develop a logical argument, they are persistent and faithful to the political views they subscribe, aiming for the extremely partisan masses, and they assume this fact and develop their businesses accordingly. Here, one must bear in mind that all ideologies affect the consumer decision; for instance religious ideology mostly intermingled with the consumption, marketplace ideology and identity (Izberk-Bilgin, 2012). Religion-sensitive approach that propagates “these brands are infidel brands” and economic nationalists that chant “buy national products,” and those who paint their competition into a corner by rumoring, “they use pork and lard,” are usually brands with strict values and belong in this first group. Thus, this group is formed by brands that do not deny their social counterparts and would like to play along by creating niche markets to benefit from.

The second group of brands considers that they should stay impartial and if they do not stay impartial their brands will come to harm. However, it should be kept in mind that, the members of that group could evolve to the other two groups. The main philosophy of these brands consists of the reaction towards the policy of imposing any political identity and calls for the transparency of the society. They adopt an approach that promotes the opinion of being at equal distance to anyone, to be objective and aims to hold consumers with different views together. In other words, they are attentive to stay at the same distance from each and every

opinion. Even if there is a political view, they try to give the messages showing respect for other views.

Brands in the third group follow just the opposite path to the brands in the first group. In other words, it would be correct to state that they base their main arguments on precise attitudes. Because, by asserting that they do not approve any tendency towards politics within the framework of democratic values, and claiming that otherwise politics would be polarized, they avoid the arguments via dogmatization.

Among the three main attitudes and within the particular unique wording, jargon and argumentative logic of these approaches, to stay impartial is the most suitable one. In the relation between corporation (brand) and politics (ideology), the most appropriate positioning would be to be able to stay objective. In an environment where the society is polarized within clear limits, the attitudes that brand managers would display and responses they would give to this polarization are very significant. When businesses could not perceive or disregard that change, they face the risk of losing existing or potential consumers. Especially in markets dominated by the middle classes, with high level of competition and featuring mass production and mass consumption, since the consumers have plenty of alternatives, businesses should be extremely careful with their marketing efforts.

There is an immense need for brands that would help develop the lifestyle, express and target the spending power of the middle classes, which is individualized and becoming more liberal on specific products and services in selected areas of purchasing power in Turkey, which itself is becoming more rich and middle class. The democratic demands of the rising large middle class masses, participation in the decision making process, inclusion in the society, being visible, is not only reflected in the choice of brands but also in the election polls.

4. WHAT COULD BE THE SUGGESTIONS FOR BRAND MANAGERS?

Turkey will complete the period of elections formed by three stages after the June 2015 general elections. This long period of elections in Turkey became an era where political debate and polarization penetrated all spheres, thus affecting the brand management as well. Brand-politics relationship preoccupies the brand managers and forces them to make decisions on the sustainability of the brand. Especially, the turbulence created by this tense, critical and significant subject places the brand managers in an awkward situation and makes it difficult for them to take precautions.

While the approach of consideration of only consumer advocacy has already become a notion of the past and the importance of a new language and discourse promoting the criticisms and desires of the consumers have increased, new methods and approaches to relate, negotiate and if necessary moderation need to be developed. Polarization, induced by the mobility in Turkish politics had its effects on consumer trends as well. Today, the brands are faced with **“voter consumers.”** Today, the brands face the young consumers bidding the brands they prefer to declare sides and the brands try to deflect this problem by the **“umbrella brand”** formula (Özel, 2014). In this regard, the following main suggestion could be made: **“Corporate and brand managers in a market such as Turkey where there are high levels of political polarization and tensions and many different political stances and with mass production and consumption, should adopt a proactive position that would prevent an increase in polarization”** (Odabaşı, 2013). Other sub-suggestions that would support this comprehensive suggestion could be listed as follows:

Sub-suggestion # 1: Brands should have all inclusive and efficient communication skills.

In brand communications, managers should refrain from fanatical messages as a risky discourse, using or sharing a language, which could cause an increase in the level of tension,

or communicating based on values. Non-discriminative content should be created, which would include every kind of consumer, managers should be able to see that a language between the opposing sides that is unbiased, funny, merry, reflecting a new freedom and all inclusive is the proper one and should display communication skills that are open, assuring, honest, bi-directional, cyclical, continuous and interactive.

Sub-suggestion # 2: Brands should be aware that not acting based on political position or disposition helps build a sustainable brand.

It is obvious that brand managers, at points where they encounter the consumers face to face, if they do not have a deliberate choice of sides, should not act based on political positions or dispositions to create positive results in the long run related to the relationship they would have with the consumer and the image they would create, thus in addition to creating a brand, they would help build a “**sustainable brand**”.

Sub-suggestion # 3: It should be known that the correct and effective management of brand communications in social media has a strategic significance.

Quality in brand management, social responsibility, interests of stakeholder, and communications via new media should be maintained with crisis management synergies in a strategic dimension and in a multiple structure to manage long-term effects. It is a fact that the effect of social media evokes its presence with shared content and as a new situation, and increasingly becomes very effective. Especially since the effects of messages that are multi-directional and interactive with internal and external stakeholders could not be easily controlled as opposed to one-directional and “**destructive messages**”, new media approaches seem to have been altered. It should be remembered that today, the brands are under the pressures of “**digital reputation threat**” and even “**digital reputation execution**” and the times we live in are the days to protect the brands instead of creating them. The increasing media attention that the corporations receive will result in immediate awareness of the risk factors such as harm that could come to their reputations in addition to their political role acquisition in the society, will result in a better understanding and enable them to take precautions (Hunter, Menestrel & De Bettignies, 2008). When negative effects are evident, corporations reevaluating their behavior try to maintain a balance via corrective communication efforts. This approach is a good example for the significant role that social responsibility efforts play in the relations management between the corporation and the consumers (Grappi, Romani & Bagozzi, 2013).

Sub-suggestion # 4: Brand messages and their effects should be regularly controlled to protect the brand.

To protect the brand and to be proactive, the brand messages should be regularly inspected for their effects of discomfort. If necessary, the management should be able to determine the reactions, respond to criticisms rapidly and should take compensatory actions. If necessary, it should be able to protect the brand from reactions that are neither correct nor real. It should internalize that, not to find itself in the category of “**adversely affected**”, neutrality, empathy and dialogue are indispensable understandings and applications to manage this situation. Instead of responding to the attacks, oppositions and negative news and situations that force the managers to take sides with emotional reactive approaches, risk-minimizing and profit-maximizing calm approaches should be preferred. Even though it might look like corporations on the government’s side is winning in many aspects including profitability, **business-politics** relationship has social and economic costs that would harm the performance in the long term (Ozcan&Gunduz, 2014).

Sub-suggestion # 5: It should be known that brand image is not only formed under complete corporate control and one-sided, but shaped as a result of the interaction with stakeholders as well.

Today, traditional brand image practices that aim to control the information, thus trying to control the opinions, are bound to lose. This new situation, instead of the old habit of communicating the events of the corporation via one-sided communications, necessitates a decision making process based on the information obtained from the stakeholders. Among the steps that should be taken in corporations to implement these understandings and practices, the following should be mentioned: an observer team formed by experts should be formed, new scenarios to explain the developing situations should continuously be developed, an organizational culture among the stakeholders should be developed, and by including all these within the strategic planning process, training sessions and workshops should be organized.

Sub-suggestion # 6: Corporations should be able to support social change by developing social relations via their brands.

New technologies, with a potential to change the structure of politics and the individual, not only ensure the spreading of information, but also create a demand to participate in politics. Corporations should embrace the whole society and create values by developing their “social skills” and should be pioneers in “**social innovativeness and change**”. **Democracy**, focused on politics, which is mediating, as a social requirement, balancing, persuasive and participatory, is a respectful and tolerant new **way of life**. Corporations that believe in the capacity of the cooperation of the troika of “**business world-education-state**” that have the same understanding as above to change the current situation, should support an education of democracy starting from the primary school.

5. CONCLUSION (RESULT)

As a result, middle class consumers, who expand in numbers and are ready to consume, miss and reward brands that supply their requirements, give them happiness, do not discriminate, could understand and respect the differences, are neutral and impartial. Now it is time for a process of understanding, inclusiveness and calming down instead of politics built on polarization, disintegration, taking sides and hate among the identities. Brands should be able to manage the process of “**social positioning**” for a paradigm that does not deny any identity and position identities within an interactive whole. There is a social part and role for brands in the climate of reconciliation for the change and reformation and establishment of the culture of democracy, thus formation of a brand economy that creates added value. Like the corporations and brands that dominantly and determinatively support the approach of embracing all identities and love competition and racing, when politics and trade would approach the similar dimension, developments and growth would evolve into the democratic sphere desired. It seems inevitable for success that brand strategies and practices that would provide equilibrium and interaction between different segments of the society, should be oriented to a call of “**social conciliation**” in a way to create a social effect. This study aimed to arrive at the best practices to prevent the thought formations that would break the communications by stressing the significance of neutrality of brand managers and brands in a polarized national politics, and to investigate and determine alternative behavior patterns. This study that includes definitive explanations based on theories and observations, and aims to form a framework to propose suggestions, is pioneer in nature. It has a significant structure to provide a basis for future and more progressive applied studies.

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THE STRONG ROLE OF NATURAL RESOURCES IN SECESSIONIST CONFLICTS: A COMPARATIVE ANALYSIS OF MAIN FEATURES

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ABSTRACT

The paper studies the secessionist conflicts that comprise the significant role of natural resources, which causes, prolongs or in rare cases even shortens the length of the secessionist conflict. Since oil is the most important natural resource of the present day, we have focused on studying the role of oil in secessionist conflicts. For a conflict to be designated as “secessionist”, certain prerequisites have to be fulfilled: a region that has certain uniqueness and an identity felt by the majority of its population, different in some way from the rest of the territory that makes up the state. The identity that is different from the identity of the space surrounding the region can be a product of a different nationality, religion, culture and/or history. If this particular region is abundant with resources, chances for a secessionist conflict with resources playing a strong role i.e. a resource conflict that involves an attempt or attempts for secession (or at least a politico-territorial and economic autonomy) from the state rise significantly. Theoretical perspectives consulted for the purpose of this paper are mostly socioeconomic by their character. They are focused on the socio-economic aspects of the resource conflicts, and mostly quantitative. Secessionist conflicts represent a constant reality of the contemporary world. Interests of developed states and emerging economies, which lie in insuring the continuous, undisturbed flow of natural resources (oil and strategic minerals particularly) from the resource rich, albeit mostly poor and unstable countries represent an important factor of the prolongation of resource conflicts.

Keywords: *natural resources, secession, conflicts, oil, rents, Sub-Saharan Africa, South-East Asia and Oceania.*

1. INTRODUCTION

Access to natural resources is a dominant feature of international security. The U.S. State Department has identified 15 resource-rich regions that are vulnerable to immediate outbreaks of violence, primarily in the Middle East and Africa. As resource scarcity worsens and energy demands increase, international powers will intervene in resource disputes to protect their vital interests (Kehl, 2010: 410). As Klare has put it in “Blood and Oil” (Klare, 2004) there are about 1047.7 billion barrels of proven oil reserves left in the world; once this supply is expended, humans have no way of creating more oil and will have to either switch to

alternative fuel sources or invent synthetic replacements. However, a point resource⁸ may be more easily monopolised than a diffuse resource, but that its desirability usually makes it vulnerable to contestation and often depends on international recognition for mobilising investors, hence the likelihood of coup d'état or secession as a function of relative proximity. Rewards from resource control are maximised by insurgents when resources are easily accessible and marketable and sufficiently valuable, such as distant diffuse resources, hence the association with warlordism. Finally, proximate diffuse resources involving large number of producers would be more likely to lead to rebellion or rioting in nearby provincial or national centres of power (Le Billon, 2001: 572).

The exploitation of natural resources in weak and unstable states sometimes causes resistance since it is usually done without the consent of the local population, which often receives nothing or almost nothing from the resource exports rents. The consequences of resource exploitation are often land expropriation, and environment destruction (deforestation, population etc.)⁹. One of the causes of resource wars¹⁰ are mining and hardwood exploitation companies, which are destroying the environment and often violently displacing the local population (very often the minority and indigenous) from their habitats. Many of these companies employ private armies (Klare, 2001: 208).

It is impossible to understand the recent violence in South Africa, Mexico, Pakistan, the Philippines, and Haiti without acknowledging the impact resource extraction can have on food availability and environmental health (Dinar, 2002).

Conflicts tied with the secession of certain areas abundant with natural resources from the countries that they belong to are causing a specific type of natural resource conflicts, secessionist conflicts. When the abundance of natural resources in some area overlaps with a certain degree of uniqueness (ethnic, religious, historical) that has created a separate identity of the inhabitants of this area, demands for secession or at least autonomy are usually the rule, not an exception.

The relationship between relative socio-economic performance and conflict incidence is non-linear: regions that suffer from high horizontal inequalities (Stewart, 2008)—whether relatively poor or relatively rich—in relation to the rest of the country are more prone to secessionism. The presence of hydrocarbon deposits also dramatically increases the likelihood of secessionism (Brown, 2010).

In northeast Africa, the cases of Eritrea and Somaliland are examples of nationalist rather than ethnic or religious narratives that led to separation. In both cases, early post-independence disputes over state allocated resources, including currency and taxation of trade, contributed to violent conflicts, partly with the former (successor) state and internal. Elsewhere in Africa, politically credible secessionist movements in Angola (Cabinda), Democratic Republic of Congo (Katanga), Nigeria (Biafra), and Senegal (Casamance), have all occurred at the intersection of economic incentive (mineral wealth or agricultural resources) and ethnic or regional identity. It is rare indeed to find a resource poor province seeking to secede from a richer mother country (De Waal, 2014: 42).

The capture of the prize (resources) when resources motivate secession does not require the control of the country but only the de facto sovereignty of the areas necessary for resource

⁸Oil can be a point and a diffuse resource. Nevertheless, its exploitation requires a complicated and technologically advanced infrastructure, contrary to diamonds, minerals or hardwood, which can be easily exploited (or looted and smuggled, if illegal exploitation is going on).

See: Le Billon, 2001: 572

⁹ See: Watts, M. 2004. Resource curse? Governmentality, oil and power in the Niger delta. *Geopolitics*, 9 (1) 50-80.

¹⁰ As a distinction between a conflict and a civil war, the number of thousand combat deaths is usually taken as a limit.

control and trade. Resources can thus greatly influence the control, transformation and *production of territories*. Similar to conflicts over state control, popular political agendas or more personal greed-driven initiatives can motivate secessions. The likelihood of political secession increases when ‘outsiders’ are perceived to extract ‘local’ resources without sharing the wealth, and when local populations are displaced by the extractive industry or suffer from its environmental costs (Le Billon, 2001: 574).

Not only the material price of resource wars (in general, not just the ones for oil) is high, the price in human lives can also be very high. Studies have shown that in 2001 about 50 wars and conflicts had a strong resource dimension. The human toll of these resource-related conflicts is simply horrendous. Rough estimates suggest that more than 5 million people were killed during the 1990s. Close to 6 million fled to neighbouring countries, and anywhere from 11 to 15 million people were displaced inside the borders of their home countries. But some people—warlords, corrupt governments, and unscrupulous corporate leaders—benefited from the pillage, taking in billions of dollars (Renner, 2002: 6).

2. THEORETICAL PERSPECTIVES CONSULTED: SECESSIONIST CONFLICTS AND RESOURCES

In the studies of secessionist conflicts where resources play a strong role, two main groups of theories have crystallized: the socio-economic and political.

Political theories are mostly focused on the political constitution of the country, the ethnic composition and the identities that define the political orientations and/or affinities of particular groups in the society. Socio-economic theories are mostly oriented on the socio-economic standing of the group and/or region.

Researchers have divided the proponents of socio-economic theories of resource conflicts into two groups with regard to the resource abundance or resource scarcity as the cause of conflict, and therefore the object of study. Le Billon (2001: 564) states: “According to advocates of the *scarce resource wars* hypothesis, people or nations will fight each other to secure access to the resources necessary for their survival: the more scarce the resource, the more bitter the fight“. (...) According to the *abundant resource wars* argument, primary commodities are easily and heavily taxable, and are therefore attractive to both the ruling elites and their competitors. In the first group are, among others Collier and Le Billon, and in the second Homer-Dixon and Renner. Among the studies of resource conflict proneness, interdependence between resource abundance, countries’ dependence on resource exports that are part of the socio-economic theories, which were consulted for the purpose of this paper, quantitatively based studies of Collier (2004, 2007) as well as Collier and Hoeffler (1998, 2005) stand out. Collier and Hoeffler (2004) have analyzed 54 large-scale civil wars that occurred between 1965 and 1999 and have found that a higher share of primary commodity exports in GDP significantly and substantially increases the risk of conflict. They have compared countries with 10% and 25% of their GDP coming from resources, holding other characteristics constant at the mean for low-income developing countries. The risk of a civil war for these countries in the subsequent five years rises from 11% to 29%. They have investigated whether there were significant differences between groups of commodities and found that oil is the only one, which is distinctive. High levels of oil dependence are even more likely to be associated with conflict than similarly high levels of dependence upon other commodity exports (Collier, 2004: 2). Many commentators argue that oil scarcity increases the likelihood of armed conflicts, with oil price considered an index of scarcity (Klare 2004).

Ross (2003) also found that resource abundance plays an important role as a cause of the conflict. He has supported this and other theses by studying 13 different resource conflicts, mostly from Sub-Saharan Africa. Nevertheless, while oil, non-fuel minerals and illicit drugs

appear to influence conflict, other types of primary commodities – notably legal agricultural commodities – seem to be unrelated to civil war, at least in 13 cases studied. Resource abundance, however, does not have such a clear effect on the longevity of resource conflicts, according to (Ross, 2004: 35-36).

When it comes to oil, besides increasing the possibility of secession, price increases would exacerbate a mix of “greed” and “grievances,” increasing the likelihood of civil war, coup or even foreign intervention through growing nationalism, allegations of corruption, or desire to capture a (greater) share of larger revenues (Le Billon, 2009: 839).

In a study confined to African civil wars, Buhaug and Rød (2006) differentiate between (1) territorial conflict that is more likely in sparsely populated regions near the state border, at a distance from the capital, and without significant rough terrain and (2) conflict over state governance that is more likely to occur in densely populated regions near diamond fields and close to the capital. The secessionist conflicts are clearly type 1 conflicts, since they are usually fought in the regions near the state borders, which make up the state's periphery and have certain uniqueness (geographical, historical, ethnic cultural etc.). Buhaug and Gates (2002) conclude that the type of rebellion and of the rebel group influence where the conflict will be located and suggest that secessionist and identity-based wars tend to be located further away from the capital than other types of conflict.

In the context of “peak oil” debates, rising energy consumption, and the Iraq war, oil scarcity has recently been a focal point for geopolitical accounts of “resource wars” (Klare 2004; Heinberg, 2005). Whereas the number of conflicts declined after the Cold War, it doubled among oil producers between 1989 and 2005 (Ross 2008), and the proportion of conflict zones overlapping oil-producing areas increased from about 20 percent to 40 percent (in Le Billon, 2009: 837). Failure by governments and consumers to reduce oil demand reinforces scarcity, and an associated politics of tension around “strategic” oil areas leads to the banalization of geopolitics of fear and force, such as in the Middle East. This “banal” violence is also expressed at the individual oil project level. Faced with the spatialities of oil concessions and operations, and constitutive of petro-states’ political geography, “communities” and political entrepreneurs shape geographies of contestation and insecurity to improve access to revenues from and conditions of oil exploitation (Watts 2004, in Le Billon, 2009). However, the location of oil and type of conflict also matter; overlapping conflict and oil areas are associated with longer governmental conflicts (over central government) but not with territorial (secessionist) ones (Lujala, Rød, Thieme 2007).

3. RESOURCE CONFLICTS: SECESSIONIST AND NON-SECESSIONIST

Resources appear to play a different role in separatist conflicts than in non-separatist conflicts. Grievances over the distribution of resource wealth helped initiate two of the three separatist wars in the sample (Sudan, Indonesia), but played no role in the ten non-separatist wars, except for the ambiguous case of Sierra Leone. These two separatist conflicts were also the only ones to face pre-emptive repression, which is a government’s use of terror to suppress rebel movements that may interfere with resource exploitation. This implies that the geographical distribution of natural resources across a nation’s territory may be important: if resource wealth is located in a region with separatist aspirations, it may help precipitate a war, and increase the war’s casualty rate (Ross, 2003: 38-39).

Unlike in the case of oil, secessionist wars involving diamonds have been extremely rare since 1946. Whereas diamond wealth should entice secession in producing regions “dispossessed” by central authorities. Easier access to diamonds by local populations in the case of secondary deposits, according to Ross (2003), would reduce incentives to pursue diamond control through secession. Cases of secessionist wars include South Kasai (1960–1962), and when

considering independence struggles, Angola (1961–1974) and Namibia (1966–1988). In each case, diamond reserves included alluvial deposits, but colonial authorities and licensed corporations strictly prohibited access to them by the population (Le Billon, 2008: 358).

The people living near the natural resource endowment have an obvious economic interest in claiming the resources for themselves to the exclusion of their fellow nationals. Since natural resources are almost everywhere treated as public rather than private property, such a claim for local public ownership is tantamount to a claim for independence (Collier, 2006: 3). On the other hand, in most cases, the central government does not return more than a couple percent of profits earned from natural resources exploitation to the areas from which these resources are exploited.

Nation states are usually recent agglomerations of previously distinct political entities, and this process of assimilation has often been contested. Hence, in many situations, natural resources will be located in regions where some political groups – albeit often on the fringe – are already claiming autonomy (Collier, 2006: 3)¹¹. Most of the states outside of Europe did not have a process of nation-building characteristic for Europe. Nations and national identities were not formed in a way and up to a degree that is familiar in most of Europe¹². Economic motives and interests in claiming autonomy, uniqueness or even secession are tied with the political and social interest of protecting the identities of certain groups of the population living in a certain area rich in natural resources.

Central governments very often inflict violence on the population that inhabits the areas rich in natural resources through a repressive apparatus that is financed mostly from rents that are earned from exactly the same resources found in the areas where the violence is conducted. Local populations normally get less than 10 percent of what is left from resource rents, after the corruption takes its share. After all, a majority of resource dependent countries rank very high on the scale of corruption perception index, especially in Sub-Saharan Africa and Post-Soviet Space (see Kurečić, Hunjet, Perec, 2014).

Violence and complete non-participation or negligible participation of the local population in resource rent spending have been the main causes of low-intensity conflicts, which have in some cases turned into civil wars. A common feature in all these conflicts is the fact that minority populations at the state level represent a majority in the area where resources are exploited. These populations are usually on the margin of society, despite the fact that they live in resource abundant areas. Examples of conflicts that have arisen because of these situations are the conflict in the Niger Delta, the conflict on Bougainville Island, and the conflict in the Indonesian provinces of Irian Jaya (West Papua) and Aceh (on Sumatra Island). Rather than full-fledged war, these conflicts usually involve smaller-scale skirmishes, roadblocks, acts of sabotage, and major human rights violations by state security forces and rebel groups. A number of these conflicts, however, have evolved into secessionist struggles (Renner, 2002: 8).

What were initially resource conflicts have turned into secessionist conflicts, in which one population wanted to secede or at least receive full autonomy from the central government, and consequently get what they consider a fair share of resource rents. Secessionist conflicts often pose a very difficult issue when it comes to determining their character. What starts out

¹¹Geographic variables are also significant – civil wars are more likely to be secessionist the larger and more dispersed the population. This is consistent with the natural resource thesis: if there is a large and highly dispersed national population then inequality of resource endowment is likely to be more pronounced – a minority of the population is likely to be located on top of the natural resources.

See: Collier, Hoeffler, 2002: 14-15.

¹² The best example is Sub-Saharan Africa, with mixed and multiple identities, colonial, super-imposed borders, instability of central governments, and secessionist movements.

as an internal (intra state) conflict, can become a civil war, and it can turn into an international (interstate) conflict. Due to the uncontrolled and therefore porous borders, rebels often use other states' territories to conduct military and looting operations in order to fight against the government forces of the state from which they want to secede, or simply bring down its regime. Foreign companies and smugglers, as well as neighbouring states are also often involved in these conflicts. Smuggling of conflict or "blood" diamonds is probably the best example of this practice, which occurred in Angola and Sierra Leone. The Central African War, as well as the conflict in Sierra Leone, both of which occurred in the 1990s are probably the best examples of such conflicts, which had a strong resource component. Most internal conflicts, or civil wars, that did not breakout as resource conflicts, in the areas rich in natural resources very soon become resource conflicts. Resources also became means of prolonging conflicts, which can be positive for one side, usually the rebels. However, government forces are also overseeing and securing resource exploitation, which is usually needed to finance warfare that is expensive. At the same time, these extraordinary conditions represent a very good opportunity for corruption. Regimes, which are dependent on resources for its financing, can become more prepared to negotiate peace if rebels are successful in blocking resource exploitation¹³. The worst scenario for any government is accepting (de facto if not de iure) the broad autonomy or even secession of some piece of a state's territory abundant in natural resources, which also has certain uniqueness (whether it is geographical, ethnic, linguistic, cultural, historical etc.) and whose demands for broad autonomy or even secession can be fulfilled by the international community or at least some of its most important factors (the most powerful states). The examples of such areas and their successful and unsuccessful attempts to secede can be found in Tab. 1.

Tab. 1: Examples of resource abundant areas that wanted or want to secede

	<i>Area that seceded, tried secession or is trying to secede</i>	<i>State from which the area has seceded or has tried to secede</i>	<i>Natural resources found in the area that has seceded, tried or is trying to secede</i>
<i>Successful attempts of secession</i>	Eritrea Timor-Leste South Sudan	Ethiopia Indonesia Sudan	Rare minerals, oil, natural gas Oil, natural gas Oil
<i>Unsuccessful attempts of secession</i>	Biafra Cabinda Bougainville* Aceh* Irian Jaya (West Papua)* Katanga/Shaba Western Sahara	Nigeria Angola Papua-New Guinea Indonesia Indonesia Dem. Rep. Congo (Zaire) Morocco	Oil Oil Copper Natural gas, oil Gold, tropical hardwood Copper, diamonds, rare strategically important minerals Phosphates

¹³Rebels from the Niger Delta region in Nigeria represent a very good example of this practice. The political goals and ideology of the rebels from the Niger Delta quite rapidly gave way to interests that wanted only one thing: more money from the oil that would be distributed among local authorities and clans, which started to fight among themselves about the participation in the "protection" of oil fields. Until 2004, the rebels managed to decrease the production of oil in Nigeria by 40 percent. They forced the central government of Nigeria to recognize them as a party in negotiations (Collier, 2006: 3).

* These provinces have managed to gain autonomy inside the states from which they wanted to secede. However, real economic autonomy has not been fulfilled. The key issue remains the natural resource exploitation i.e. the distribution of natural resource rents and environmental degradation.

Leveraging financial aid is not highly effective in resolving natural resource disputes because the benefits of fighting to control the resource outright might outweigh the benefits of cooperation, which is often the case in disputes over oil and diamonds. The strategies that are effective in natural resource disputes include leveraging market access, building domestic capacity, institutionalizing accountability, external monitoring and enforcement of coherent resource policies, and military mobilization in the short term to stabilize volatile resource-rich regions (Kehl, 2010: 410).

4. EXAMPLES OF SECESSIONIST RESOURCE CONFLICTS: SUB-SAHARAN AFRICA, SOUTH-EAST ASIA AND OCEANIA

A good example of a secessionist conflict tied with oil is the Sudan secessionist conflict, which finally resulted in the secession of South Sudan in 2011. Supported by a U.S. government opposing neighbouring “communist” Ethiopia, Chevron obtained an oil and gas exploration license for Sudan’s interior in 1974. Chevron’s venture also followed the 1972 Addis Ababa Peace Agreement ending nearly two decades of secessionist struggle in southern Sudan. Chevron’s oil discoveries in the south led the central Sudanese authorities to renege on the Peace Agreement, redrawing provincial borders and creating a new “Unity” province around the main oil fields (Rone, 2003). The “peace” required by oil companies in production area was in part secured through the 1997 Khartoum Peace Agreement (which included oil revenue sharing) between the central authorities and southern secessionist military factions (Young, 2003). A more recent conflict, which ended briefly in the partition of the country, and the new internal conflicts that emerged in South Sudan, cannot be explained only by the traditional North-South, Arab (Muslim)-Christian division. Identities can be constructed in diverse ways, and Sudan’s identity politics emerged from interlocking dynamics, including the legacy of militarized tribalism inherited from imperial conquests and colonial administration of frontier regions, Mahdist millenarianism and Sudanese nationalism, and the stratagems used by rulers and contenders in north and south, centre and peripheries, to mobilise political constituencies and armed groups¹⁴. (De Waal, 2014: 37). It is a more complex issue than the simple North-South division would suggest. Therefore, the political division of the country, which occurred in 2011, cannot permanently solve it. The South Sudanese case for secession is unusual as the identity arguments have been so obvious and so prominent. The analysis that links identity narratives to political economy and especially the material benefits that elites can obtain through possessing control over a recognized state brings the South Sudanese case more closely into line with other accounts of secessionism and post-secession conflicts (De Waal, 2014: 42).

The Katanga secession is similarly intimately related to the fact that this was the mineral heartland of the Congo. There was overt involvement in the secession by South African

¹⁴The unresolved dispute over whether Abyei Area, inhabited predominantly by ethnic Dinka, should remain in the north or be transferred south, is the most striking but not the only example of this. The (northern) Sudanese state is defined by default as an “Arab” and/or “Muslim” identity state, but the partition of the country left substantial “African” populations, many of whose members fought as part of the SPLM/A or its sympathizers on the “wrong” side, leading to the continuation of existing wars in Darfur and re-igniting of others in Southern Kordofan and Blue Nile. Identity conflicts within South Sudan, such as between the Dinka majority and others, notably the Nuer, were not addressed.

See: De Waal, 2014: 37.

mining interests, so that it could more plausibly be interpreted as an external and commercial movement than as a bottom-up cry to protect a historic identity. As in Nigeria, thirty years after the initial secession was defeated, there is renewed secessionist pressure, far more intense than in Nigeria, and quite evidently related to natural resources (Collier, Hoeffler, 2002: 19).

A relatively successful example of potential conflict prevention tied to resources was the construction of the Chad-Cameroon Pipeline. In February 2003, the governments of Chad and Cameroon agreed to cooperate with Exxon Mobil, Petronas, and Chevron to settle disputes under the oversight of the World Bank. There were a few remaining legal disputes but comparatively little military mobilization and violence. Even non-state actors have been able to appeal to the World Bank to resolve disputes with the oil corporations, and there have been very few terrorist or rebel attacks on the pipeline since the 2003 agreement (Kehl, 2010: 408). Conflicts in Nigeria are also indivisible from the role that oil has in the Nigerian economy and politics. These conflicts are also secessionist (unsuccessful secession of Biafra and secession attempts in the Niger Delta during the 1990s and 2000s). The discovery of oil in Nigeria changed the patterns of alliances between the dominant tribes. Northern and South-western tribes quickly formed an alliance against the oil-rich Southeast, where the Niger Delta is located. Therefore, the Biafra conflict started. This was decidedly not a war of ethnic identity – the oil resources being fought over were actually off the coast of Port Harcourt, whereas the Ibo heartland was inland, around Enugu. When Biafra was defeated, many small ethnic groups redefined themselves as non-Ibo: identity fluctuated according to convenience. It is unmistakable: Biafra was a natural resource grab (Collier, Hoeffler, 2002: 17-18). Unfortunately, Biafra illustrates what happens when law fails: societies revert to trial by combat. In a world where authority is derived from physical power rather than democratic processes, Biafra deserves to be free, but does not have the military strength to secede. Biafra exemplifies the ugly alternative to referenda and diplomacy—where justice falls victim to power (Lyle, 2005: 715).

However, the conflict in the Niger Delta is even more tied to the geographical scope of natural resources i.e. oil. Interventions of the Nigerian central government have done nothing but boosted secessionist attempts further. Watts traces ‘the variety of violences engendered by oil (2004: 53), the entanglements of oil wealth and the complex history of social (dis)order in Nigeria with its spaces for violence, claims making and community building¹⁵. The three states that produce most of the Nigerian oil, Rivers (until the split of this state into two states, Rivers and Bayelsa, it produced about 40 percent of all oil from Nigeria), Bayelsa and Delta (it produces about 35 percent of all Nigerian oil)¹⁶ receive an especially small proportion of oil rent money from the central government.

In the last National Political Reform Conference, the people of the Niger Delta, in fact, delegates from the South-South initially demanded 100% control of their naturally endowed mineral resources while they would pay tax to the Federal Government. This position was vehemently opposed until the demand rested on 25%. At the end of the debate, the Conference recommended a paltry 17%. Here lies the dilemma of the resource control question. While the demand for a total of 100% resource control based on derivation may be termed outrageous, the fact remains that 17% as recommended by the Conference will not make for sustainable

¹⁵Oil is as much a biophysical entity, a commodity, as it is a source of imagination and meaning. Watts’ analysis emphasizes the simultaneous production (and reworking) of different forms of pre-existing rule and governable space(s) that evolve as a result of the insertion of oil revenue into the Nigerian political economy (Watts, 2004: 54) and result in civil vigilantism.

See: Korf, B. 2011: 747.

¹⁶http://www.nigeriagallery.com/Nigeria/States_Nigeria/Delta_State.html.

development in the Niger Delta region (Orji, 2005: 3), Sagay (2005: 8), sum up the *raison d'être* for resource as follows: (i) environmental degradation and neglect (ii) the scourge of wasted gas (iii) absentee landlordism and environmental devastation. While working on globalization and the environmental degradation in the Niger Delta of Nigeria, Jike (2003: 56), observes that multi-national oil companies in the Niger Delta have a chequered history as a result of boisterous reaction of host communities intermittent oil spillages and indiscriminate gas flaring which have diametrically undermined the ability of local environment to sustain life (In: Orji, Jaja, 2007: 5-6).

The uprising of Cabindan separatists throws into relief a much larger and more basic conflict. The right to self-determination is among the most fundamental concepts of international law, and is central to the U.N. Charter. Angola argues that it simply wants to maintain its territorial integrity. The presence of oil casts doubt on Angola's pure intentions, because Angola has little economic incentive to allow Cabinda's secession. Cabinda's wells supply over sixty percent of the oil revenues that account for forty-two percent of Angola's gross national product and ninety percent of the state budget. For many years, Cabinda received none of these profits, and its citizens found themselves struggling to feed their families while living in sight of monstrous oilrigs. The situation is seeing moderate improvement. Ten percent of Cabindan oil revenues now go into the province's coffers rather than Angola's national fund (Lyle, 2005: 703, 705).

Secession of East Timor has been successful, and that of Aceh, at the other end of the archipelago, has been contained. Both of these provinces are rich in natural gas with small populations, whereas the island on which most of the Indonesian population lives, Java has neither oil nor gas. Aceh has a per capita GDP triple the Indonesian average, although this is not reflected in living standards, since the oil income accrues nationally rather than locally¹⁷ (Collier, Hoeffler, 2002: 19). East Timor is an excellent example of a U.N.-led referendum leading to an expression of the self-determination of the people (Lyle, 2005: 710).

In Bougainville (an island that is part of Papua New Guinea), similar issues led to a decade-long war. The world's largest open-pit copper mine, owned jointly by mining giant RTZ (80 percent) and the central government (20 percent), started operating at Panguna in 1972. But the severe social and environmental impacts of the mine reinforced demands for secession (Renner, 2002: 44).

5. CONCLUSION

Seven of the world's eight bloodiest conflicts are in Africa. The African Union has so far failed to protect populations, but the continent's first emergency force could be established this year (Leymarie, 2015). Some of these conflicts are also secessionist by their character, and in almost all of them, resources play an important role. By their role in financing conflicts, resources generally prolong conflicts. The history of secessionist conflicts in Africa is highly connected with the role of natural resources. Conflicts in Nigeria (Biafra, Niger Delta), DR Congo (Katanga), and Angola (Cabinda) as well as the conflict in Sudan (now Sudan and South Sudan) are the best examples of these kinds of conflicts. Nevertheless, secessionist conflicts are also occurring in the other parts of the world (Southeast Asia for instance). Bolivia almost experienced an internal conflict when its eastern natural gas rich regions demanded a broad political autonomy. The increasing demand for natural resources,

¹⁷Both East Timor and Aceh indisputably have distinct historic identities that can be tapped. However, this is true all over Indonesia. The ability of these particular secessionist movements to function effectively over long periods may, however, be related to the perception on the part of the populations of these areas that secession would confer ownership of important resources.
See: Collier, Hoeffler, 2002: 20.

especially in the emerging “resource-hungry” economies (particularly China and India) are making the resources ever more important. At the same time, developed economies of the dominant states of the world, despite their technological advancement and development, are still highly dependent on natural resources that are mostly found in the poor, developing states of the world, usually multinational and very often torn by internal differences, greed, and grievance, that altogether cause permanent instability. These factors contribute to the possibility of resource conflicts, and some of these conflicts are secessionist by their character. A significant number of states in Sub-Saharan Africa, Middle East and Southeast Asia are under the risk of becoming stages for secessionist conflicts, which can quickly turn into full-scale secessionist resource wars. The interests of “resource-hungry” economies are making these conflicts even more probable in the future. Support of the world powers to either the central governments or the rebels from some region of a particular state in pursuit of independence have so far mainly represented the rule.

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PUBLIC FINANCIAL MANAGEMENT FOR THE SUSTAINABLE DEVELOPMENT

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ABSTRACT

The key message of this paper is that without proper management of public finances there is no real sustainable development and that modern public financial management (PFM) requires much more than the classical approach limited to state budgeting. In this paper the main aspects of good and effective public financial management (PFM) are presented.

Keywords: *public finance, public financial management, sustainable development*

1. INTRODUCTION

Sustainable development has been defined in many ways, but the most frequently quoted definition is from "Our Common Future", also known as the "Brundtland Report" (Brundtland, G. H., 1987): "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (International Institute for Sustainable Development), (Saks, 2014, p. 5). Observed from that aspect, good public finance should meet the needs of the present generation without compromising the ability of future generations to meet their own needs. If the present generation in order to meet their needs borrow or spend too much, at the same time limits the ability of future generations to meet their own needs.

It is widely recognized that effective institutions and systems of public financial management (PFM) have a critical role to play in supporting implementation of policies of national development and poverty reduction. PFM is a vital component of self-determined and sustainable development. Sound PFM ensures accountability and efficiency in the management of public resources, which are vital to the achievement of public policy objectives.

Many countries are now trying to restore sound and sustainable public finances, because the way governments manage their budgets today will have economic effects in the years ahead. The global financial and economic crisis highlighted the importance of sound PMF in ensuring that well-designed fiscal policies are implemented effectively. Sound management of public finances means maintaining a sustainable fiscal position, allocating resources efficiently, and delivering public goods and services effectively.

In all countries the state (government), as a complex individual entity, has a largest part of the national gross domestic product (GDP) - between 40% and 55% in advanced (developed) economies and 25% and 40% in emerging market (developing) economies (Table 1). Therefore, good management of public finance has a great importance for the welfare of the country and its development.

*Table 1: General Government Expenditure (percent of GDP, 2013)
('Fiscal Monitor', October 2014, Washington: IMF, pp. 70, 78)*

<u>Advanced Economies</u>		<u>Emerging Market Economies</u>	
Austria	51.2	Argentina	36.8
Belgium	54.5	Brazil	41.1
Denemark	56.9	China	29.1
Finland	56.1	India	27.0
France	57.2	Indonesia	20.1
Germany	44.5	Malaysia	28.9
Italy	54.5	Mexico	27.1
Japan	40.0	Russia	37.9
U.Kingdom	43.8	Turkey	38.1
United States	36.6	South Africa	33.2

2. PUBLIC FINANCIAL MANAGEMENT

PFM in the traditional sense is concerned with how governments manage the budget in its established phases—formulation, approval, and execution (Congiano, et al., 2013). It deals with the set of processes and procedures that cover all aspects of expenditure management in government. But PFM has evolved over time, so has its definition. PFM has broadened its focus from the narrowly defined budget to all aspects of managing public resources, including resource mobilization, public investment management, public debt management, and fiscal risk management. The coverage of PFM has expanded from the narrowly defined central government budget to all levels of government and the broader public sector, including state enterprises and public-private partnerships.

PFM is now seen as an “umbrella” definition, covering a set of systems aimed at producing information, processes, and rules that can help support fiscal policymaking as well as provide instruments for its implementation (Congiano et al., 2013). According to the World Bank PFM entails the development of laws, organizations and systems that enable sustainable, efficient, effective and transparent management of public finances (World Bank, 2015).

The key objectives of PMF are still maintaining a sustainable fiscal position, the effective allocation of resources, and the efficient delivery of public goods and services, but PFM has certainly evolved from its traditional focus on financial compliance and control to become a key foundation for macrofiscal analysis and policymaking.

In most countries public finances have been affected by the global economic crises. Full awareness of the current state and future evolution of the public finances is critical to the initiation and delivery of a fiscal consolidation program (Olden et al., 2012). As many countries face a complex and uncertain macroeconomic and fiscal outlook, there is a risk of underestimating the full fiscal challenge, and hence the necessary adjustment.

Strengthening PFM is a very complex process and PFM reforms have three broad objectives: 1) to improve aggregate fiscal discipline - budgets should be consistent with a realistic macroeconomic framework and a sustainable fiscal program, and brought in on target, 2) to improve allocative efficiency (or strategic prioritization)- that is, an allocation of funds that is aligned with country priorities and helps maximize social welfare, and 3) to improve operational efficiency- requiring that resources are utilized efficiently and efectively towards to the purpose for which they have been allocated without waste and loss (Fritz et al., 2014).

According to estimates of the World Economic Forum (WEF) it seems that the countries of Southeast Europe, and developed countries of Europe that surround them, do not manage the best public finances in terms of wastefulness in public expenditures (Table 2.)

Table 2: Wastefulness of government spending (2013-2014 weighted average)*
(WEF (2014) 'The Global Competitiveness Report 2014-2015', Geneva: WEF, p. 413)*

Country	Value**	Rank***
Albania	3.3	63
Austria	3.4	53
Bulgaria	2.6	98
Croatia	2.2	129
Greece	2.2	131
Hungary	2.6	96
Italia	1.9	139
Macedonia	3.8	30
Montenegro	3.4	55
Romania	2.5	116
Serbia	2.2	132
Slovenia	2.2	133

Notes: *In your country, how efficient does the government spend public revenues? ** Value: 1 = extremely inefficient; 7 = extremely efficient in providing goods and services, *** 144 countries/economies

Because of the lack of incentives, governments are often wasteful in their use of publicly held assets (Tanzi and Prakash, 2000). Governments in many countries own large public assets (natural resources, forests, land, buildings...) that represent a larger share of country's total wealth. Most countries do not even have a complete record of all assets that the government owns, thus making it difficult to monitor and control their assets. It is essential to identify every publicly owned real assets, to estimate the values of these assets and ascertain what income they generate, to examine the most productive potential use of these assets, and to assess the possibility of selling them to private sector or public entities. A well-functioning PFM includes an effective accounting and financial reporting system to support fiscal policy analysis and budget management.

The World Bank identifies the six critical dimensions of performance of an open and orderly PFM system as follows: 1) Credibility of the budget (budget realism) - the budget is realistic and implemented as intended in a predictable manner; 2) Comprehensiveness and transparency - the budget and fiscal risk oversight are comprehensive and fiscal and budget information is accessible to the public; 3) Policy-based budgeting - the budget is prepared with due regard to government policy; 4) Predictability and control in budget execution - the budget is implemented in an orderly and predictable manner and there is a control of the use of public funds (including on procurement); 5) Accounting, recording and reporting - adequate records and information are produced, maintained and disseminated to meet decision-making control, management and reporting purposes; 6) External scrutiny and audit - arrangements for scrutiny of public finances and follow up by executive are operating (Olden et al., 2012).

3. PUBLIC INVESTMENT MANAGEMENT

The results show that public capital is a significant contributor to economic growth and developing countries are under pressure to invest more on infrastructure in order to accelerate and/or sustain growth (Gupta et al., 2011). But many developing countries have also a long legacy of failed public projects. The effectiveness of public investments also depends on institutional factors, such as the quality of project selection, management and evaluation, and regulatory and operational framework. Project implementation is considered the most important component of investment process.

Public Investment Management (PIM) has significantly benefited from PFM innovations. However, despite these benefits, procyclicality and the stop-and-go nature of public investment persist. There are evidences of low efficiency of public investment including: 1) Poor project selection including wasteful ‘white elephant’ projects, 2) Delays in design and completion of projects, 3) Corrupt procurement practices, 4) Cost over-runs (over-optimistic forecasts and analysis are still widespread), 5) Incomplete projects, 6) Failure to operate and maintain assets effectively so that the benefits are less than they should be (Rajaram et al., 2010).

Therefore, efficient Public Investment Management system ‘must have’: 1) Credible strategic guidance to public investment (public investment strategies), 2) Project development, 3) Preliminary screening (formal project appraisal, project selection and budgeting) (Rajaram et al., 2010). The project selection process needs to ensure that proposed projects have been evaluated for their social and economic value. Cost-benefit assessments of competing projects should be the key for selecting individual projects to ensure value for money.

Cost benefit analysis (CBA or COBA) gained popularity as a practical tool of public sector financial management in the 1960s and early 1970s. The principle of CBA is: all benefits and costs associate with a project are expressed in monetary terms (and in terms of present values). CBA is, therefore, a technique for assessing the monetary value of the social benefits and costs of a public sector capital projects over a specific time. Because the resources available to the public sector are limited, choices have to be made.

Another practical tool of PFM and PIM is Cost-effectiveness analysis (CFA) which attempts to identify the least cost method of achieving a particular objective or the maximum output that can be attained for a given cost. CBA and CFA are only part of the set of management techniques which are used to give more rational to public sector resource allocation decisions. Others include programme planning and budgeting systems (PPBSs) and zero-based budgeting (ZBB).

Private financial initiatives (PFI) and public private partnerships (PPP) have been introduced as a part of the general trend towards greater private sector involvement in the management, delivery and financing of public services. The purpose and rationale of the PFI and PPP is to improve value for money (VFM) in provision of public services

There is a broad consensus that a scaling-up of investment in low-income countries, particularly in infrastructure, is critical to achieve sustained growth (Dabla-Norris et al. 2011). But, results of some studies argue that there isn’t an evidence base on which to support the idea that a large public investment drive will unconditionally accelerate economic growth (Warner, 2014). On average the evidence shows only a weak positive association between investment spending and growth and only in the same year. On the other hand, one empirical study finds that a 1 percent increase in physical infrastructure stocks, given other variables, temporarily raises GDP growth by as much as 1-2 percentage points (Calderon and Servén, 2004)

Table 3: *Quality of overall infrastructure* (2013-2014 wieghted average)*
(*WEF (2014), 'The Global Competitiveness Report 2014-2015', Geneva: WEF, p. 428*)

Country	Value**	Rank***
Albania	3.8	87
Austria	6.2	7
Bulgaria	3.6	100
Croatia	4.9	44
Greece	4.6	57
Hungary	5.0	41
Italia	4.6	56
Macedonia	3.9	84
Montenegro	3.7	91
Romania	3.8	88
Serbia	3.3	111
Slovenia	5.1	34

Notes: *How would you assess general infrastructure (e.g. transport, telephony, and energy) in your country?

** Value: 1 = extremely underdeveloped, among the worst in the world; 7 = extensive and efficient, among the best in the world

*** 144 countries/economies

Quality of overall infrastructure, which primarily depends on the state and public investment in many countries of Southeast Europe is not satisfactory, which speaks in favour of the assessment of the public investment management in those countries is not good (Table 3.).

4. PUBLIC DEBT MANAGEMENT

Public (sovereign) debt management is the process of establishing and executing a strategy for managing the government's debt in order to raise the required amount of funding, achieve its risk and cost objectives, and to meet any other public debt management goals the government may have set (IMF and the WB 2001, p. 2). In a broader macroeconomic context for public policy, governments should seek to ensure that both the level and rate of growth in their public debt is fundamentally sustainable, and can be serviced while meeting cost and risk objectives.

The main objective of public debt management is to ensure that the government's financing needs and its payment obligations are met at the lowest possible cost over the medium to long run, consistent with a prudent degree of risk (IMF and the WB 2001, p. 10). Higher public debt raises solvency risks, constrains the capacity to use fiscal policy as a countercyclical tool, and can increase borrowing costs for sovereigns. Bad public debt management was and still is present in many countries. Evidence of that are sovereign debt restructurings. There are more than 600 sovereign debt restructuring cases in 95 countries from 1950 to 2010. (Das et al., 2012) . Of these, 186 were with private creditors (foreign banks and bondholders), while 447 agreements restructured bilateral debt with the Paris Club.

Table 4: Selected Advanced Economies: Government Gross Debt (Percent of GDP)
(‘Fiscal Monitor’, October 2014, Washington: IMF, p. 71)

	2006	2013
Austria	62.3	74.5
France	63.2	91.8
Germany	68.0	78.4
Greece	107.5	175.1
Italy	106.3	132.5
Ireland	23.8	116.1
Japan	186.0	243.2
Netherlands	44.3	68.6
Portugal	63.7	124.1
Slovenia	26.0	70.0
Spain	39.7	93.9
United Kingdom	42.7	90.6
United States	63.6	104.2

Many countries around the world have accumulated large public debt in the aftermath of the global financial crisis (Baldacci et al., 2010). This is particularly the case in advanced economies (Table 4.). Moreover, the debt surge is occurring at a time when pressure from age-related spending (e.g., pensions and health care) is building up in many countries. Public debt has also increased in some emerging economies during the recession and they tend to have a lower debt tolerance, owing to narrower and more volatile revenue bases.

Higher public debt raises solvency risks, constrains the capacity to use fiscal policy as a countercyclical tool, and can increase borrowing costs. Ultimately, the increase in public debt may reduce output growth and productivity. As economies recover from the recession, therefore, the challenge for governments is to regain fiscal health through budget consolidation and pro-growth structural reforms to reduce public debt (Baldacci et al., 2010). However, reducing high levels of public debt after the recent crisis can be challenging.

What is the impact of high public debt on long-run economic growth? The empirical results suggest an inverse relationship between initial debt and subsequent growth: on average, a 10 percentage point increase in the initial debt-to-GDP ratio is associated with a slowdown in annual real per capita GDP growth of around 0.2 percentage points per year, with the impact being somewhat smaller in advanced economies (Kumar and Woo, 2010).

5. FISCAL RISK MANAGEMENT

The global financial crisis dramatically illustrated the importance of managing the fiscal risks to which public finances can be exposed. Risk arises because of uncertainty about the future or risk is exposure to the consequences of uncertainty. Sources of risk include various shocks to macroeconomic variables (economic growth, commodity prices, interest rates, or exchange rates) as well as calls of contingent liabilities (obligations triggered by an uncertain event). Failure to disclose and prepare for such risks has caused additional government obligations, larger public debts and, occasionally the financial crises. Fiscal outcomes often differ substantially from budget or other fiscal projections. Fiscal risk is defined as the possibility of deviations of fiscal outcomes from what was expected at the time of the budget or other forecasts (IMF, 2008).

Effective Fiscal Risk Management (FRM) requires: 1) Identification of fiscal risks and a clear allocation of responsibilities for the various parts of the public sector in assessing and reporting fiscal risks, 2) Comprehensive disclosure of fiscal risks which is desirable to facilitate identification and management of risks, and 3) Cost-effective risk mitigation that begins with sound macroeconomic policies and public financial management practices, but it may also involve using insurance instruments (IMF, 2008). Fiscal risk management is facilitated by a legal and administrative framework clarifying relationships between different levels of government and vis-à-vis the private sector. Numerical fiscal rules and targets, as a FRM tool, have proliferated in the past 20 years, and have often been seen as a means for addressing fiscal problems, chiefly rising deficits and debt levels. A fiscal rule imposes a long-lasting constraint on fiscal policy through numerical limits on budgetary aggregates (Schalechfer et al., 2012). The number of countries with fiscal rules rose from 5 in 1990 to 76 in 2012. Fiscal transparency is a part of a broader notion of transparency or access to information in the public sector. Transparency has two dimensions: 1) Access to information about the processes and procedures by which public sector takes and implements decisions, and 2) Access to information generated, held and used by public sector. Fiscal transparency defined as the clarity, reliability, frequency, timeliness, and relevance of public fiscal reporting and the openness to the public of the government's fiscal policymaking process—is considered a critical element of effective fiscal management (IMF, 2012).

The reference fiscal transparency standard is the IMF Code of Good Practice on Fiscal Transparency (1998, updated in 2007) (IMF, 2007). The Code is based on four principles: clarity of roles and responsibilities, open budget process, public availability of information, and assurance of integrity. A Manual on Fiscal Transparency provides guidance on implementation. As in most countries, the public finances of Southeastern Europe (SEE) countries have been affected by the global economic crises. Full awareness of the current state and future evolution of the public finances is critical to the initiation and delivery of a fiscal consolidation program (Olden et al., 2012). As many countries face a complex and uncertain macroeconomic and fiscal outlook, there is a risk of underestimating the full fiscal challenge, and hence the necessary adjustment.

6. CONCLUSION

Today's decisions made by government have far-reaching consequences for future generations and their development prospects, so decision makers in the public finance must be aware of these effects. Modern PFM comprises a set of increasingly complex processes, rules, systems, and norms that are linked to one another. PFM has three key objectives: maintaining a sustainable fiscal position, effective allocation of resources, and efficient delivery of public goods and services. PFM is an open system exposed to many economic and political factors that affect incentives and behavior of politicians and public servants. A key problem in PFM is the frequent inability of government to look beyond a one-year time horizon when making decisions on current or proposed policies and expenditures that have fiscal implications for many years ahead. Particular context (historical, political, and geographical, etc.) in which a country decides to manage its public finances is important, because there is no "magic approach" to PFM, and any attempt to "import" PFM innovations that may have worked elsewhere should be carefully assessed.

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VALUATION OF SHARES AND THEIR FAIR VALUE OF THE COMPANIES LISTED ON THE WIG-UKRAINE QUOTED ON THE WARSAW STOCK EXCHANGE IN POLAND WITHIN 2011-2015

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ABSTRACT

This paper examines share price of the companies listed on the WIG-Ukraine and their fair value between 2011-2015. Data from Q4 2013 to Q2 2014 was collected from the Stooq.pl (Polish portal of shares). Two hypotheses are tested: (1) value of the shares based on the market price; (2) value of the shares as the fair value of shares.

In this paper, the WIG-UKRAINE stock exchange sector companies, which oppose a bad economic situation in Ukraine caused by military actions on its territory, were analysed. These companies were subject to detailed research in order to demonstrate that they have the potential to act on the free market and that they do not lose their financial liquidity. In addition, their fair value was shown, because the current economic and market situation in Ukraine completely deprived it of this value.

Keywords: *stock exchange, share valuation, fair value, companies*

1. INTRODUCTION

Share valuation is one of the most complex processes on financial markets since the value of shares does not depend only on demand and supply on the market, but also on many factors that determine its price, starting from business valuation by using different methods in the given time to the presentation of mechanisms changing the value of shares in a manner either increasing or decreasing its value. For this reason, it is so important to value shares and determine its fair value in a manner that is objective and independent of speculative values that distort share prices and hence of the value of a WSE-listed company, which research conducted on the WIG-Ukraine index applies to. The value of companies listed on this index should be analyzed in terms of estimating their fair value, since presently their value should arouse significant controversies, especially at good operation of companies.

2. UKRAINIAN ECONOMY

A fall in GDP of 6% in Ukraine would be a good result, because the economic situation has dramatically deteriorated due to the war in Eastern Ukraine. Such an index is consistent with the forecast of the International Monetary Fund, which estimates this year's expected reduction of GDP to 6.5%. However, according to the Ukraine's central bank, it will rise to 10%. As Szlapak emphasised, in 2015, Ukraine can gain the economic growth of 2%, if the parliament approves the planned tax reform. Fiscal changes will be also introduced, and the reform will include the income tax and tax on corporate profits, as well as social security contributions.

Within the framework of the reform, six income groups of both natural and legal persons, singled out for the fiscal purposes, is to be replaced with only three, and the tax rate for the lowest group will be reduced by half.

However, it should be taken into account that the Ukrainian hryvnia loses value so much that in terms of the minimum wage converted into dollars, Ukraine fell below the level of poor

countries of Africa and Asia, which was calculated by the Ukraine television. The Ukrainian minimum wage is UAH 1218, and currently it is the value of 42.9 dollars, while, e.g. in Ghana, Bangladesh, or Zambia, it is 46.6 dollars.

Since the downfall of the President Viktor Yanukovich, hryvnia has lost more than 70% in value. Ukraine is currently being devastated by the conflict with pro-Russian separatists in the east of the country. A big problem is also the widespread corruption and sluggish pace of introducing necessary reforms.

Poland, which has 25-year experience in the economic transformation, offers Ukraine assistance in management, and can pass on this know-how to Ukraine, which is at the beginning of this road. Poland may also economically advise it in terms of reforms. However, the Ukrainians will have to give only the will and desire to take advantage of our experience, which was struggled with success and sometimes mistakes.

3. FAIR VALUE OF LISTED COMPANIES

Share price of the companies listed on the Stock Exchange should reflect also their fair value (Pierce, 2004, pp. 124-145). The fair value can be defined in several ways. In view of the foregoing, the fair value is a value used repeatedly in accounting, and thus in Article 28 (6) of the Accounting Act of 29.09.1994 as "the amount for which a given asset component could be exchanged, and the liability could be paid on market transaction terms between interested and well-informed, unrelated parties.

In view of whether the price of shares that are quoted on the stock exchange corresponds to their fair value, should be found in the value alone, since, after all, the values may be diverse, like the value of a similar company, producing similar goods and operating in the same industry, will also be diverse for various reasons.

The subject of trade covers minority shares, and the main market participants are retail investors or minority institutional investors, thus the price of shares should reflect the fair value characterizing the liquid minority interest (Borowski, 2013, bossa.pl).

The value presented in this way seems righteous, which is confirmed by the premium paid by the investors who announce calls for subscription for shares and plan in this way the purchase of the controlling interest. Then the premium reflects the difference between the level of liquid minority interest and the level of controlling interest. Sometimes the level takes into account benefits resulting from synergy. An investor purchasing the controlling interest in this way receives premiums that appear after taking over control of a company, in the form of funds, business management and making a number of strategic decisions.

The fair value of the share price should be determined in accordance with the idea of capital market, namely the market participants should have equal access to data, information and all messages concerning a given company. However, the investors are divided into three groups:

- a) People with access to the most closely guarded information that affects the price and the business value, namely those can the company's management board or shareholders,
- b) Institutional investors with blocks of shares with simultaneous access to the company's management board,
- c) Individual investors who have access to public information.

At this point, there should be no differences in particular groups, at least officially, however, it happens that a group that is closest to the company has information which can obviously change its value overnight or distort its value artificially, e.g. other data or informal data, and even fictitious data. Worldwide we can also appreciate companies that treat individual investors seriously, namely provide them data concerning a company and treat them as equal

and as strategic investors, with a large impact on a company in the present and in the future. Transactions that are concluded on the Warsaw Stock Exchange relate to transactions between interested parties, namely a purchase or sale order should be submitted. Sometimes there are cases of wrongly submitted orders, but these are marginal orders that do not have a large impact on the transactions conducted on the Warsaw Stock Exchange. Share liquidity is understood as a percentage quantity of shares in a company that are in the possession of minority shareholders. This is, at the same time, free float and the face value of such shares and the value of average daily trade in shares in a given company (Kufel, 1992, pp. 78-89).

Thus, we may presume that if during a day a large trade in shares takes place and a greater part of shares remains in the hands of minor shareholders, the share price reflects their fair value. We cannot agree with the fact that at small or minimum trade the value of shares is reduced to its daily minimum and it would be its fair value. Then it is only a change in the share price to a lower one and it does not indicate its fair value, as the trade alone suggests that this is only a pure coincidence. Such an impact can be exerted by large shareholders, as they can, by using one block, decrease the share value, preventing smaller players from raising the price for one reason: the capital of smaller shareholders does not enable them to raise the share price (Veale, 2001, pp. 88-125; Frąckowiak, 1998, pp. 34-42).

There is one premise more to determine the fair value of share price. The investors are fond of investing in shares, namely they buy them as in the past they managed to earn on them and they feel that presently the share price is ideal and reflects their fair value and will enable them to obtain fair dividend in the future. Such a purchase or sale of shares can largely overestimate or underestimate the share value of a quoted company. Here the IT industry may serve as an example, namely shares in technological companies at the beginning of the new millennium, when shares in these companies were being purchased without any analysis in technical terms, but looking at their name and value, which was increasing overnight. In view of the foregoing, this led to excessively high business value above its fair value (Thompson, 2008, pp. 45-67). The share price should thus reflect the fair value of a company listed on the Warsaw Stock Exchange. For the value of these companies be fair, the market must make available to all investors information regarding companies listed on the Warsaw Stock Exchange. The shareholders should be treated equally; therefore we cannot distinguish majority shareholders as those who should have information unavailable for minority shareholders. First of all, shares should be liquid securities, therefore they should be in free float and have real-time transferability, namely at any moment and at any time during the office hours of the Warsaw Stock Exchange on a business day (The analysis of 233 recommendations or analytical reports issued by broker's offices in the period from January 2014 to January 2015, concerning 41 companies comprising the WIG20 and mWIG40 indexes of the Warsaw Stock Exchange).

4. WIG-UKRAINE AND SHARES IN THE COMPANIES LISTED ON IT

The WIG-Ukraine index groups only shares in Ukrainian companies listed on the Main Market of the Warsaw Stock Exchange. This index enables investors to estimate investment demand in a given sector but only for the Ukrainian companies listed on the Warsaw Stock Exchange, and is the basis for assessment of investment results. This is a total return index, which takes into account dividend and preemptive rights and free float. The index has been calculated since 31.12.2010 and its initial value was 1000 points. However, the index value as of 04.03.2015 is 278.79 points, namely it is overvalued over 70% in relation to the initial value, which shows its downward trend.

Value of the WIG-Ukraine index:

$$\text{WIG-Ukraine}(t) = \frac{M(t)}{M(0) * K(t)} * 1000.00$$

M (t) – index portfolio capitalization at session t
 M (0) – index portfolio capitalization on a base day
 K (t) – index adjustment factor at session t



Figure 1: WIG-Ukraine index in the years 2011 – 2015 (source: stooq.pl)

The WIG-Ukraine, as the second national index calculated by the stock exchange, is an index showing very expressively operations of the Ukrainian companies. It consists of the companies listed on the Warsaw Stock Exchange seated in Ukraine or whose operations are conducted predominantly in this country. However, the WIG-Ukraine as an a total return index includes both prices of shares contained in it and earnings from dividends and preemptive rights, which should be expressed as the fair value, however, it is not the case (Jajuga K, Jajuga T., 1996, pp. 34-57).

The chart WIG-Ukraine P/E presents the present value as of 04.03.2015 of 3.30, which proves that the total price to earnings ratio shows upward trend and it should come back to 12, as those companies have high financial potential, are investing their funds well and have been significantly undervalued and their fair value has been underestimated.

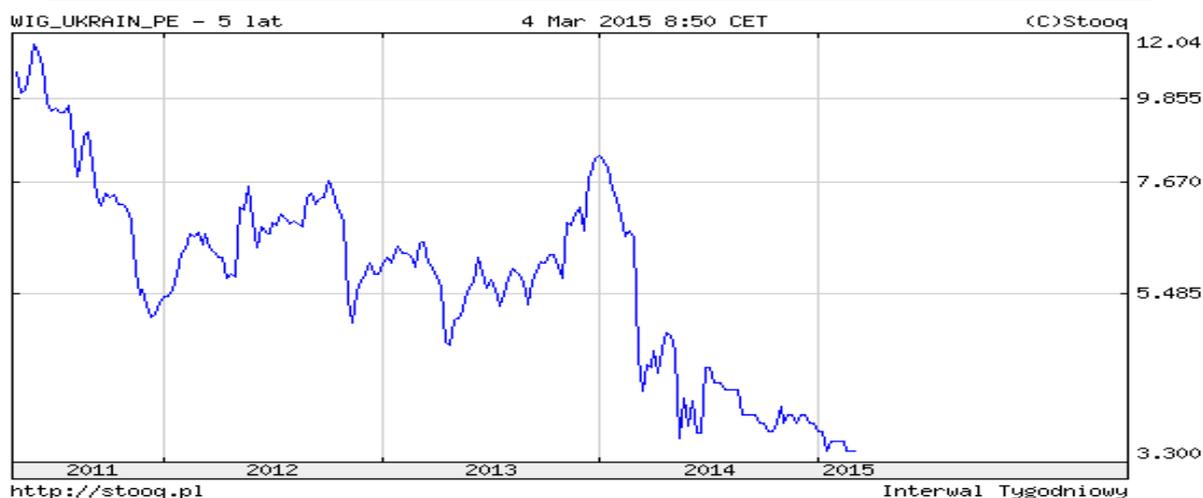


Figure 2: WIG-Ukraine P/E in the years 2011 – 2015 (source: stooq.pl)

The companies listed on the WIG-Ukraine index have good financial standing:

- a) COALENERG - the main object of operations of the Group is extraction, enrichment and sale of steam coal and coke. CoalEnergy is the third, in respect of the volume of owned reserves, according to the situation at the end of 2010, private coal producer in Ukraine and the seventh, in respect of extraction, private coal producer in this country, taking into account the results of companies for 2010.
- b) ASTARTA HOLDING NV - agricultural and industrial holding, one of leaders of the Ukrainian sugar sector. The company has been focusing its operations on the production and sale of sugar produced from beetroot and on the production and sale of cereals, which results from the need to use crop rotation in the beetroot cultivation.
- c) KERNEL HOLDING SA - conducts integrated operations in the sector of bottled edible oils and in agribusiness, with the scope including all production stages, from cultivation of agricultural products to delivery of the final product to consumer. KERNEL HOLDING is a holding company registered in Luxembourg, whose main property are shares in production companies.
- d) IMCOMPANY - company from the agricultural sector in central-north Ukraine. The operations of IMC are focused on the cultivation of cereals, oil plants and potatoes, and the Company is also one of the largest milk producers in Ukraine.
- e) KSGAGRO - agricultural holding controlling the acreage with total area of about 33,700 hectares. The main tasks of the Group include the production of cereals such as corn, wheat, barley, rapeseed and soya bean, and the production of vegetables and the supply of food products to commercial chains.
- f) KDM SHIPPING PUBLIC LTD - Ukrainian company operating in the transport navigation industry, focusing on a niche segment of the river and sea transport of dry bulk goods in the area of the Black Sea, the Sea of Azov and the Mediterranean Sea. The company provides also ship repair services, ship-building services, and operates river passenger carriages. The KDM Shipping Group has a fleet of eight bulk cargo ships to the river and sea transport of bulk cargo, with deadweight capacity of 25 206 tons.
- g) MILKILAND - leading manufacturer of dairy products, such as cheeses, yoghurts or butter, operating on one of the largest and most dynamically developing markets, in the Community of Independent States (CIS), mainly in Ukraine and Russia.

- h) OVOSTAR UNION NV - the Group is one of leaders on the eggs and egg products market in Ukraine, specializing in the production of brand high-quality products. In 2010 the share of the Group on the egg market was 5.4% of the total quantity of produced eggs, and the share in the market of egg products was 38% of the total quantity of egg products.

The current price of shares of the companies listed on the WIG-Ukraine should reflect their business value and their fair value, however, bearing in mind their maximum value, we should note that for well prospering companies their current value differs strikingly from the average or maximum value that was determined during quotations over the last few years, as shown in Table 1 (1).

TABLE 1: Companies listed on the WIG-UKRAINE in Poland as of 04.03.2015 (prepared by the author on the basis of the financial data of the WIG-Ukraine companies)

Name	Average assessment	rating	Current price PLN	Max price PLN
COALENERG	4.5/5.0	CCC-	0.64	28.68
ASTARTA Holding NV	4.0/5.0	AAA	25.50	102.62
KERNEL Holding SA	3.5/5.0	AA+	31.99	86.58
IMCOMPANY	4.5/5.0	AA-	5.90	17.36
KSGAGRO	3.5/5.0	BBB	1.08	28.08
KDMSHIPPING PUBLIC LTD	4.0/5.0	AAA	5.63	37.08
MILKILAND	5.0/5.0	B+	3.61	49.26
OVOSTAR UNION NV	4.0/5.0	AAA	69.90	130.57

The share price of some of them has been reduced by 98% (COALENERG) and of some by less than 60% (KERNEL HOLDING SA), which proves their diverse structure and diverse financial possibilities. With good financial data and generating earnings per share, the companies should resist crisis and stagnation prevailing currently on the world markets. However, it is unjust to quote rating for some companies in a manner showing their weakness, since those companies generate profit and are capable of surviving on the market and maintaining financial liquidity, which is proved by the financial results in tables 2 and 3. COALENERG may serve as an example.

Table 2 contains the most important ratios that show financial standing of the WIG-Ukraine companies. EBITDA per share is interesting, as it presents operating profit plus depreciation, which shows more effectively the companies with large fixed assets which require a very high capital expenditures characterized by a long period of return. In view of the above, EBITDA is a better ratio than EBIT, as it shows a better image of financial standing of an analyzed company (Parvi R., 2014, 33-36; Parvi R., 2014, pp. 52-60; Copeland, 1997, pp. 65-69).

In view of the so conducted analysis, we can clearly see that only five companies had problem with generating operating profit per share in the 2nd quarter of 2014: COALENERG, ASTARTA, KSGAGRO, KDMSHIPNG and MILKILAND. The other 3 companies generated operating profit per share as presented in Table 2. Almost all companies (8 companies)

reduced assets to equity ratio, which resulted in release of equity and larger investment possibilities. The exception is KSGAGRO, which has increased assets to equity ratio by about 5%. All the companies have a positive value of book value per share.

*TABLE 2: Technical assessment of companies listed on the WIG-UKRAINE as of 31.12.2015
(prepared by the author on the basis of the financial data of the WIG-Ukraine companies)*

Name	Net profit (net loss) in thousands	Sales per share	Book value per share	EBITDA per share
COALENERG				
IV quarter 2013	(EURO) -2660	No data	No data	(EURO) 1274
II quarter 2014	(EURO) -4103	No data	No data	(EURO) -2237
ASTARTA				
IV quarter 2013	(EURO) -44762	(EURO) -1.790	(EURO) 10.562	(EURO) 37033
II quarter 2014	(EURO) -24940	(EURO) -0.998	(EURO) 10.182	(EURO) -9992
KERNEL				
IV quarter 2013	(EURO) -9097	(EURO) -0.114	(EURO) 16.212	(EURO) 31190
II quarter 2014	(EURO) 23422	(EURO) 0.294	(EURO) 12.832	(EURO) 80460
IMCOMPANY				
IV quarter 2013	(EURO) -8847	(EURO) -0.283	(EURO) 4.864	(EURO) -2307
II quarter 2014	(EURO) 31768	(EURO) 1.014	(EURO) 2.939	(EURO) 48697
KSGAGRO				
IV quarter 2013	(EURO) -39795	(EURO) -2.666	(EURO) 3.359	(EURO) -31039
II quarter 2014	(EURO) -9449	(EURO) -0.633	(EURO) 1.675	(EURO) 391
KDMSHIPNG				
IV quarter 2013	(USD) -1874	(USD) -0.257	(USD) 0.190	(USD) -1713
II quarter 2014	(USD) -769	(USD) -0.105	(USD) 7.708	(USD) -513
MILKILAND				
IV quarter 2013	(EURO) 525	(EURO) 0.017	(EURO) 5.451	(EURO) 10222
II quarter 2014	(EURO) -2287	(EURO) -0.073	(EURO) 3.881	(EURO) 8235
OVOSTAR				
IV quarter 2013	(EURO) 15978	(EURO) 2.663	(EURO) 19.917	(EURO) 18451
II quarter 2014	(EURO) 3322	(EURO) 0.553	(EURO) 16.667	(EURO) 4253

Price to earnings and price to shares express the value in PLN and it is a value characterized by the results of the companies which affect these values (Parvi R., 2014, pp. 262-267; Parvi R., 2014, pp. 169-177). Similarly, price to book value of a company ranges from PLN 0.13 (KSGAGRO) to PLN 1.16 (OVOSTAR). Comparing these values to the maximum values reached by the companies, we should note that the value of PLN 0.80 PLN as maximum (IMCOMPANY) and of PLN 1.16 (OVOSTAR) were values reached by the companies during their quotations on the market over the last few years (2011-2015).

TABLE 3: Financial ratios of the companies listed on the WIG-UKRAINE as of 04.03.2015 (prepared by the author on the basis of the financial data of the WIG-Ukraine companies)

Name	C/P	P/OE (price/ operating earnings)	P/BV PLN
COALENERG	0.19	-0.92	-1.50
ASTARTA	0.39	4.10	0.59
KERNEL	0.31	2.51	0.73
IMCOMPANY	0.43	1.47	0.80
KSGAGRO	0.28	3.30	0.13
KDMSHIPNG	0.55	-4.61	0.31
MILKILAND	0.08	1.99	0.22
OVOSTAR	1.68	3.85	1.16

In view of the foregoing, we should note that from the above financial data we can calculate fair values of particular companies listed on the WIG-Ukraine.

TABLE 4: Values of the companies listed on the WIG-UKRAINE as of 04.03.2015 (prepared by the author on the basis of the financial data of the WIG-Ukraine companies)

Name	Present value	Maximum value	Fair value
COALENERG	0.64	28,68	22.05
ASTARTA	25.50	102,62	93.24
KERNEL	31.99	86,58	69.06
IMCOMPANY	5.90	17,36	16.22
KSGAGRO	1.08	28,08	23.45
KDMSHIPNG	5.63	37,08	35.11
MILKILAND	3.61	49,26	27.09
OVOSTAR	69.90	130,57	121.98

From table 4 (2), it can be concluded that the fair value is significantly higher than the current share price of the companies listed on the WIG-Ukraine. A particular "pearl" in the index may be a well prospering OVOSTAR that is largely undervalued.

TABLE 5: Values of the companies listed on the WIG-UKRAINE as of 04.03.2015 (prepared by the author on the basis of the financial data of the WIG-Ukraine companies)

Name	Deviation from the fair value in PLN	Fair value
COALENERG	21.41	22.05
ASTARTA	67.74	93.24
KERNEL	37.07	69.06
IMCOMPANY	10.32	16.22
KSGAGRO	22.37	23.45
KDMSHIPNG	29.48	35.11
MILKILAND	23.48	27.09
OVOSTAR	52.08	121.98

5. CONCLUSION

The share price of the companies listed on the WIG-Ukraine is largely undervalued by the present financial situation worldwide and even by speculative actions of particular capital groups that "wander around" the world and subsist thanks to speculative actions using only surplus on share purchase and sale and then relocate capital to another place. Such investors are not interested in the business value and in the company's situation, its share price, but only in profit.

We can see clearly that the share price of the companies listed on the WIG-Ukraine differs significantly from the fair value that has been calculated and presented in the paper. In view of the foregoing, we should particularly emphasize that this value should be achieved in the future periods, the proof of which is even growing total value of price to earnings (P/E) on the WIG-Ukraine index, where its minimal level has been already achieved. The fair value of the WIG-Ukraine companies should be achieved in the period of a few years, namely until 2020, given improved situation on world financial markets. It should be noted that there is no measured at fair value of shares and it is not easy to measure the stock shares showing their fair value.

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POSITION OF FEMALE MANAGERS IN CROATIAN TOURISM

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ABSTRACT

Theories on leadership heretofore have excluded women and this exacerbated the problem of women not being seen as an appropriate fit in a management or leadership role. Therefore, a more positive outcome for women advancing to senior roles of management or leadership may be observed in the future. The first female executives, because they were breaking new ground, adhered to many of the „rules of conduct“ that spelled success for men. Modern tourism organizations understand that faster and enhanced inclusion of women in management structures helps them gain the necessary diversity of leadership styles and approaches to management. This is of high significance to modern tourism organizations if they wish to survive, grow and develop. The aim of this paper was to present some overall structural indicators of the gender inequality evidenced in the field of Croatian tourism. The objective is to determine specific personal and professional characteristics of women in managerial positions in Croatian tourism organisations and the differences relating to the same characteristics in men. The working hypothesis was that a female manager is increasingly aware of her position in society, her chances and qualities, and therefore asks for the relevant acknowledgements as well. The sample of fifty (N=50) leading female managers in Croatian tourism organizations took part in online survey. The findings indicated that women tend to use the supporting management style. Over one fifth of the leading female managers in Croatian tourism point out that insufficient authority and ambition are the main obstacles to advancement of women to leadership positions. The biggest difference between male and female management styles is reflected in the following spheres: intimate-detached, indulgent-inflexible, solo player-team player, modest-always wants more, avoids the risk-accepts the risk.

Keywords: *leadership style, management, position, tourism organizations, women*

1. INTRODUCTION

Current transitional challenges (economic and social) shed a completely new light on the aspect of leading an enterprise and managing change. In such circumstances, managers need to know how to implement changes quickly, effectively and economically. The key corporate focus is not on *what* to change, but *how* and *how fast* (Horvat, Perkov, 2013, p.20). The men's and women's role and sphere of influence in implementing the change process are the most important to overcome individual barriers (Perkov et al., 2014, p. 466).

For years women did not have the chance to achieve an advancement possibility above the level of their inferiors in organizations. They did not get the opportunity to be educated to become team players, solve complicated cases and to render leader's decisions. The age-long

struggle of women for equality (equal employment rights, voting rights, 8-hour working hours as well as equal wages) resulted in amendments to legal acts and positive changes. Despite the achieved progress, women continue to be poorly respected and insufficiently developed human resource; even though the generally accepted view is they are valuable as much as men. They are mostly excluded from jobs relating to top management and leadership. They haven't achieved an equal status yet, partly due to prejudice and partly due to objective barriers. This especially refers to the „glass ceiling“ (impossibility of advancement to upper management positions) and „glass wall“ (staying in the so-called female areas and activities) phenomena.

The aim of this paper was to present some overall structural indicators of gender inequality evidenced in female employment in general and more specifically in the field of Croatian tourism. The objective was to identify specific personal and professional characteristics of women in managerial positions in Croatian tourism organisations and the differences relating to the same characteristics in men. We concluded that over one fifth of the leading female managers in Croatian tourism point out that insufficient authority and ambition are the main obstacles to advancement of women to leadership positions.

This paper was structured in five major chapters. The first chapter briefly introduces the topic of research and presents the paper structure. The second chapter elaborates the literature review of the relevant leadership concepts and is broken into three subheadings. The third chapter analyses the number of persons in Croatian paid employment by tourism activities and gender. The fourth chapter reflects the research methods to test the hypothesis. The fifth chapter presents the research findings. The sixth chapter summarizes key points of the paper.

2. LITERATURE REVIEW

All previous theories on leadership excluded women and this exacerbated the problem of women not being seen as an appropriate fit in a management or leadership role. The first female executives, because they were breaking new ground, adhered to many of the „rules of conduct“ that spelled success for men. In 1990, research began to report gender differences in leadership styles with female managers being seen in positive terms as participative, democratic leaders. More recent work reports that women are believed to exhibit more transformational leadership style than their male colleagues, and this is equated with effective leadership (Jogulu, Wood, 2006, p. 2). Now a second wave of women is making its way into top management, not by adopting the style that has been proven successful for men but by drawing on the skills and attitudes they have developed from their shared experience as women. These second-generation women managers are seeking and finding opportunities in fast-changing and growing organizations to show that they can achieve results in a different way.

They are succeeding because of and not in spite of specific characteristics generally considered to be "feminine and inappropriate in leaders“ (Rosener, 1990, p.1). Today's organizations require more talented employees and these are increasingly found to be women (Burke, Cooper, 2004, p. 50). This new perspective has been termed the “feminisation of management” and is built on the recognition that women, while unique, are equally capable of making a valuable contribution to the success of the organisation (Omar, Davidson, 2001, p. 40). This paper links leadership theories to a timeframe to illustrate how women were not visible in a management context until relatively recently. Such an omission may have contributed to the continuing low numbers of women who advance to senior management and leadership roles.

2.1. Leadership process and styles

The leadership process facilitates a transactional event that requires influence. This situates leadership in a social environment; which creates interaction among people. Therefore, there must be decision-making, acceptance, and refusal. Effective leaders accept leadership as a process. They know what style to use, what combination of styles to use with whom, where and when. This is important because they work with people they tend to influence. The adoption of the wrong styles may create resentment with followers exponentially in a group context. Business leaders understand there is a bi-directional transaction that takes place between leaders and followers. This solidifies the notion that leadership is a process and leaders are made and not born. Blanchard et al. (1985) argued a model that organizations can leverage to improve their leaders' skills in managing their direct reports. By assessing each follower on an individual basis the leader can adjust and adapt their style of leadership appropriately (Figure 1).

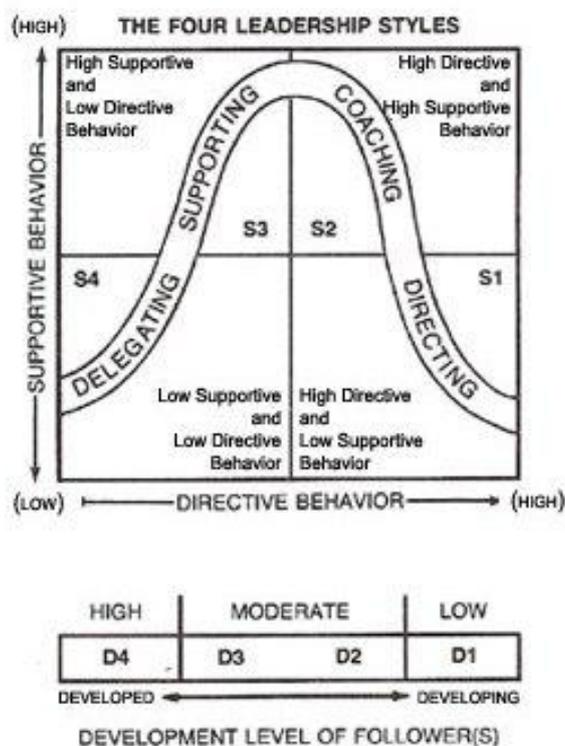


Figure 1: Four leadership styles (Blanchard et al., 1985, p. 50)

This approach encompasses four styles: S1 *Directing*; high directive and low supportive, S2 *Coaching*; high directive and high supportive, S3 *Supporting*; high supportive and low directive, S4 *Delegating*; low supportive and low directive. The four development levels range from D1 (low, developing) to D4 (high, developed) (Northouse, 2013). The adoption of the right styles will lead to what most effective and insightful leaders seek, a compass to achieve sustainable results. The current studies highlight conclusions, experiences, and inferences on leadership traits, and styles, but no quantitative data to demonstrate which style brings about results. Therefore, business leaders must embrace the leadership styles: coercive, authoritative, affiliating, democratic, pace-setting, and coaching to create the right recipe to lead their followers.

2.2. Similarities and differences between men and women business leaders

In an International Women's Forum survey of men and women leaders, Rosener (1990, p.14) found a number of unexpected similarities between men and women leaders along with some important differences. Among these similarities are characteristics related to money and children. She found that women earn the same amount of money as their male counterparts. The average yearly income for men is \$136,510; for women it is \$140,573. This finding is contrary to most studies, which find a considerable wage gap between men and women, even at the executive level. Rosener also found that just as many men as women experience work-family conflict (although when there are children at home, the women experience slightly more conflict than men). But the similarities end when men and women describe their leadership performance and how they usually influence those with whom they work.

Since women entered the business world, they have tended to find themselves in positions consistent with the roles they played at home: in staff positions rather than in line positions, supporting the work of others, and in functions like communications or human resources where they have had relatively small budgets and few people reporting directly to them. The fact that most women have lacked formal authority over others and control over resources means that by default they have had to find other ways to accomplish their work. As it turns out, the behaviours that were natural and/or socially acceptable for them have been highly successful in at least some managerial settings (Rosener, 1990, p. 21).

2.3. Women's lack of vision?

According to Ibarra and Obodaru (2009), women are still a minority in the top ranks of business. The reason? Their perceived lack of vision. In 360-degree feedback, women score relatively low on key elements of visioning—including ability to sense opportunities and threats, to set strategic direction, and to inspire constituents. The authors' research suggests three explanations for women's low visioning scores:

- Some women don't buy into the value of being visionary.
- Some women lack the confidence to go out on a limb with an untested vision.
- Some women who develop a vision in collaboration with their teams don't get credit for having created one.

Regardless of the cause, women seeking more senior roles must be perceived as visionary leaders. They can start by understanding what "being visionary" means in practical terms—and then honing their visioning skills (Ibarra, Obodaru, 2009). Figure 2 presents the analysis of the survey on how men and women were rated on vision. Out of a total possible score of 56, observers ranked the leader on a scale from 1 (lowest) to 7 (highest) for eight key behaviours. Male peers (who represented the majority of peers in the sample) rated women lower on envisioning. Interestingly, female peers did not downgrade women, contrary to the frequently heard claim that women compete rather than cooperate with one another.

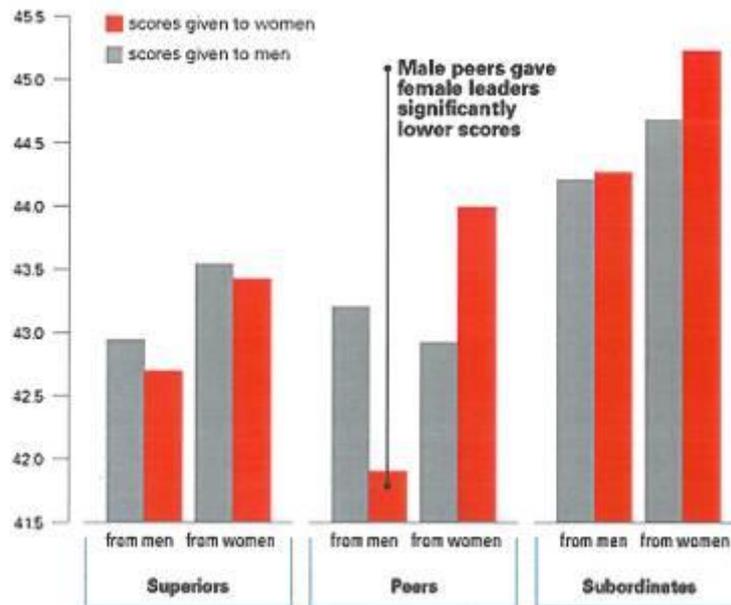


Figure 2: Who Says Women Aren't Visionary? (Ibarra, Obodaru, 2009)

These data suggest it is the men who might feel most competitive toward their female peers. Male superiors and subordinates rated male and female leaders about the same. According to these findings, women are more likely to possess leadership characteristics and attributes that are predominantly effective in contemporary circumstances compared with their male counterparts (Eagly et al., 2003). As such, contemporary leadership theories can be seen as playing a significant role in raising the profile of women in management and leadership roles, within an organisational context.

3. EMPLOYMENT OF WOMEN IN CROATIAN TOURISM

Despite legal regulations promoting equality of men and women, gender discrimination is still present, especially in employment, however to a lesser extent than before the introduction of the regulations. Statistical reports in the world, as well as those in Croatia, show four points in which the discrepancy is most obvious: (1) on average women earn less than men of the same education level, (2) women perform low-paying jobs more frequently than men, (3) women are seldom employed in upper, managerial and higher-responsibility jobs, (4) women with same qualifications and relevant merit are less frequent to advance than their male counterparts. (Petrović, 2000). The rarity of women in senior leadership roles continues to be documented worldwide. According to a Catalyst report (2003) in the USA, only 13.6 per cent of corporate board seats were held by women in the Fortune 500 companies at a time when 50.3 per cent of management, professional, and related occupations were held by women.

In January 2015, the number of persons in paid employment in legal entities in the Republic of Croatia amounted to 1 086 421, out of which there were 517 124 women (47.6 per cent). The analysis of data by activity (I 55, I 56 and N 79) by Croatian Bureau of Statistics (2015), can be used to assume that the share of women in jobs in the tourism sector in January 2014 was 53.8 per cent (Figure 3). Their presence in travel agencies was even higher (58.0 per cent) and in accommodation services and food and beverage service it was 53.4 per cent. Nevertheless, the mentioned shares are completely different when it comes to the disconcerting presence of women in upper management positions.

ACTIVITY	EMPLOYEES TOTAL	WOMEN	SHARE OF WOMEN IN %
Accommodation services and food preparation and service	42,352	22,614	53.4
Travel agencies, organised travel and other booking services	4,618	2,678	58.0
TOTAL	46,970	25,292	53,8

Figure 3: Persons in paid employment by activities and sex in January 2015 (Croatian Bureau of Statistics)

Due to a lack of a more precise data on the number of women in leadership positions in tourism, a reference for comparison was the empirical analysis on the position and management style of female managers in Croatian enterprises (Bahtijarević-Šiber, 2003). According to the research, men generally dominate in the management of Croatian enterprises with 74 percent. The majority of men are present at the highest hierarchical level, at which the share of women is only 6 percent. The share of women increases as the management level decreases. As much as 67 percent is present at the lowest, operational level. These indicators imply strong gender discrimination toward career development of women in Croatian enterprises.

4. RESEARCH METHODS AND SAMPLE ANALYSIS

The main working hypothesis of this paper was that a female manager is increasingly aware of her position in society, her chances and qualities, and therefore asks for the relevant acknowledgements as well. This chapter describes the research method and design, population, sample and instruments. Qualitative research was conducted in December 2013 on the sample of 50 female managers in leadership positions in Croatian tourism: 15 company managers (30 per cent), 10 hotel managers (20 per cent), 14 travel agency managers (28 per cent), 9 division managers (18 percent) and a tourist board manager and director of institution (4 per cent). The online questionnaire consisted of 7 multiple-choice closed questions. The distribution of respondents by age group was: 7 women aged 20 – 30 (14 per cent), 20 women aged 31 – 40 (40 per cent), 14 women aged 41 – 50 (28 percent) and 9 women aged 51 – 60 (18 per cent). The results show that women aged 31 – 40 are most present in managerial positions on tourism (40 per cent).

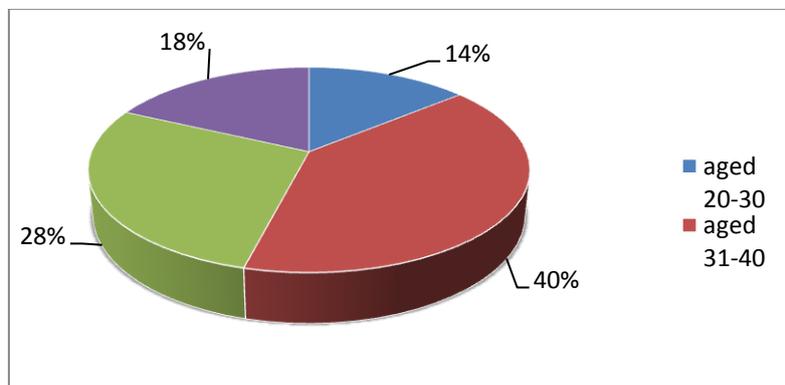


Figure 4: Distribution of respondents by age group

Young managers aged 20 – 30 are considerably less present in these positions (14 per cent), which can lead to a conclusion that women have to prove themselves more significantly than men in order to advance in their careers.

The research results were also analysed on a semantic differential scale, one of the research methods that enables measurement of attitude determinants such as intensity, extreme, direction, stability and the like in a pictorial and simple way, which are hardly achievable by other attitude measurement methods. Osgood's semantic differential model is a type of a rating scale designed to measure the connotative meaning of objects, events and concepts. The method provides a range of possibilities for determining the source of attitudes as well as for efforts to change these attitudes in direction or intensity (Kraljević, Perkov, 2014, p. 293).

According to level of education, 44 per cent of respondents held a higher education degree. Besides, the sample consisted of 22 per cent of Masters of Science and 10 per cent of Doctors of Science. Only 20 per cent obtained a college degree and a mere 4 per cent had a secondary education level. These indicators confirm that women invest more than they used to in themselves despite family obligations. They are aware of their own values, which they enhance by additional efforts and life-long learning.

5. FINDINGS

This chapter was designed to present the study results and evaluate findings in a way to test the stated hypothesis. Respondents answered three questions about their management styles, main obstacles to their advancement and typical characteristics of male and female managers in the tourism sector. According to Figure 5, all four leadership styles are almost equally present. Women in tourism organisations mostly use the *supporting style* (28 per cent) and the *coaching style* (26 per cent).

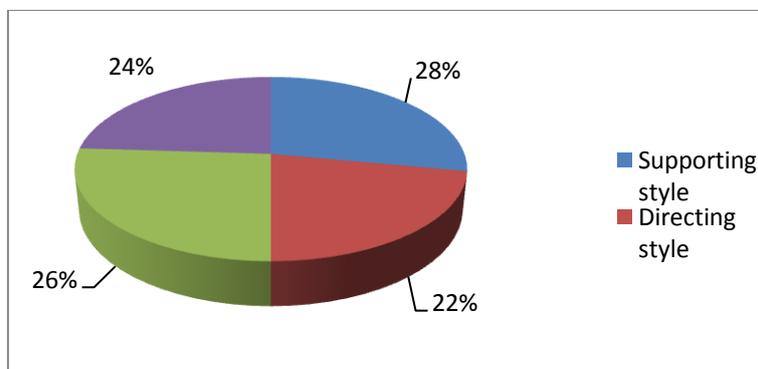


Figure 5: Most used management style by women

The *delegating style* and *directing style* are slightly less present, with 24 per cent and 22 per cent respectively. The most-used supporting style requires the manager to provide strong support to associates, to praise them, to motivate them and to include them in the decision-making process. This style is typical of female management because they are less stern, more approachable and open than their male counterparts. The directing style, which is least present, requires the leader to set goals and deadlines clearly and to strictly control the achievement of tasks. Several respondents consider that it is best to combine different management styles in order to manage a company successfully.

Modelled in accordance to the work by Juresa-Persoglio (1997), in which she offers reasons for negative selection in employment of women, our research (Figure 6) shows two crucial obstacles to the career development of women: *insufficient authority and ambition* (20.8 per cent) and *frequency time off work due to maternity leave or care of a sick child* (20 per cent).

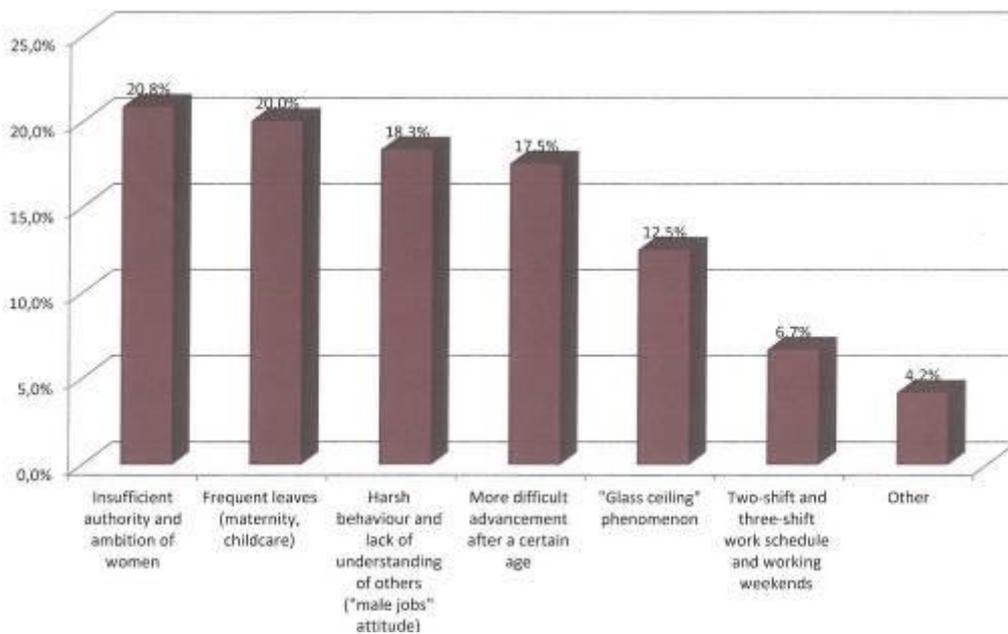


Figure 6: Main obstacles to professional advancement of women in tourism

This is understandable considering that women are lenient, yielding and frequently lack self-confidence. Among the obstacles, the third most important is *harsh behaviour toward women and lack of understanding* due to „male jobs“ attitude (18.3 per cent) and the fourth is a *more difficult advancement after a certain age* (17.5 per cent). The remaining three significant obstacles to professional advancement of women in tourism are the „glass ceiling“ phenomenon (12.5 per cent), two-shift and three-shift work schedule and working weekends (6.7 per cent) and other (4.2 per cent). The respondents also mentioned as obstacles: patriarchal characteristic of all economic activities, attitudes of Croatian society toward women, preoccupation of women with family life, the necessity of constant balancing of family and professional life and frequent travels women cannot afford due to family obligations. It is noteworthy that individual respondents stated that there were no obstacles to advancement of women as long as they are professional and dedicated!

The semantic differential on Figure 7 represents the typical characteristics of female and male management styles. According to Pološki's research (2003), the blue line (starting on the upper right side and ending on the bottom left side) shows the characteristics of a typical male manager. The characteristics of female managers (red line) were obtained by the research of authors of this paper. Based on a survey of 50 female managers in leading positions in Croatian tourism, the results and possible conclusions from the semantic differential speaks volumes about the similarities and differences between male and female experts in leadership positions. On a descriptive level the research shows some gender differences in managerial positions. The most significant difference is in the spheres *intimate-detached*, *indulgent-inflexible*, *solo player-team player*, *modest-always wants more*, *avoids risk-accepts risk*. Mostly young and ambitious managers answered that women always want more and accept risks.

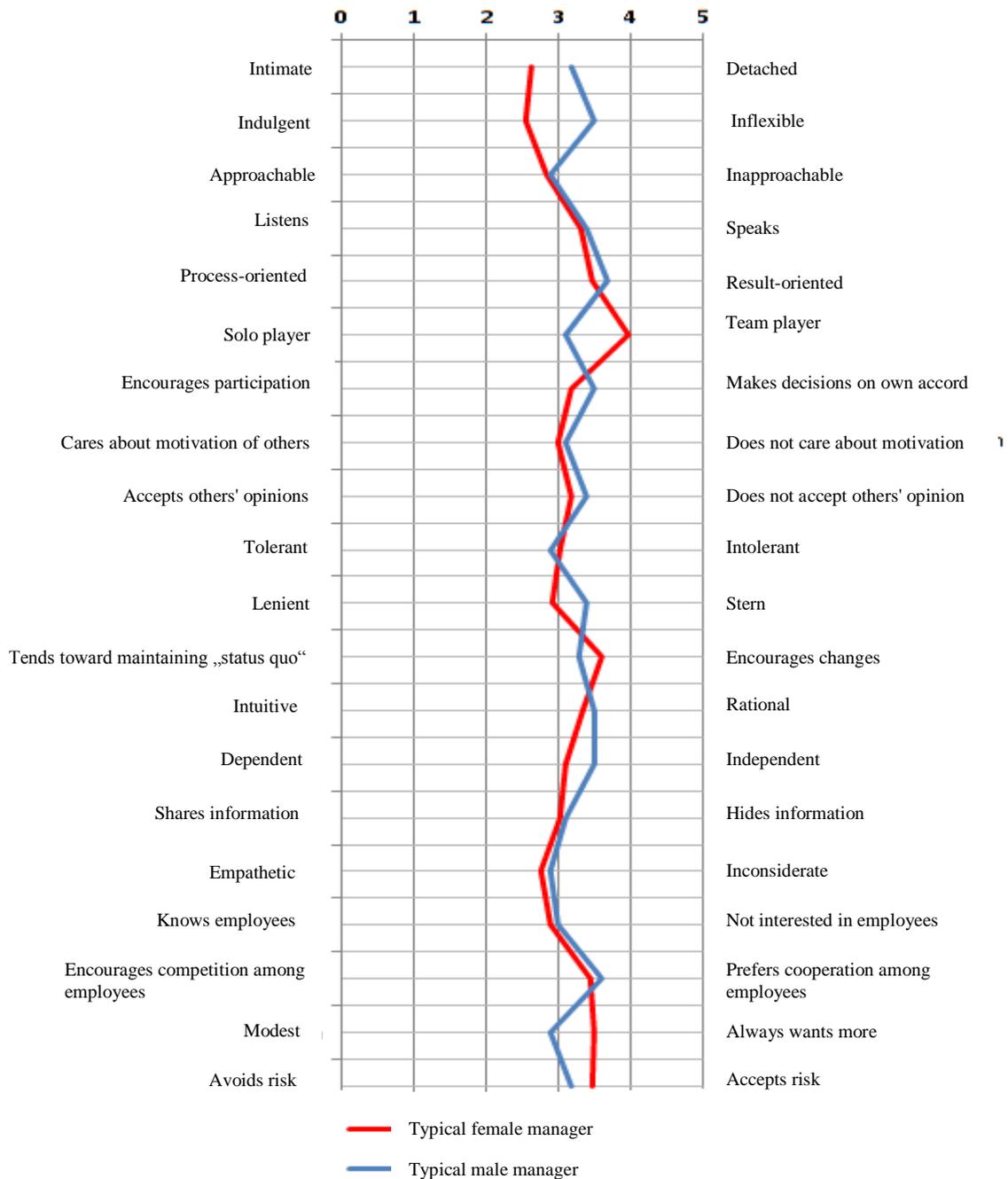


Figure 7: Comparison of typical characteristics between male and female leaders in tourism

The resulting differences are most likely a consequence of different socialising influences relating to gender roles. Based on this, women are encouraged to nurture more intimate relationships and are allowed to a greater extent to express and communicate emotions. This finally integrates into the self-image of some female managers. The opposite is true for men who are expected to be detached and rational. Finally, the research showed that 94 per cent of female managers consider that there should be more women in management positions in Croatian tourism, while only 6 per cent think otherwise. The majority claims that inequality in employment of women is present and that they deserve more than are offered.

6. CONCLUSION

This paper assesses the socio-economic position of women in terms of the nature of their employment in tourism, which represents the major economic sector of Croatia. The aim was to present some overall structural indicators of the gender inequality evidenced in the field of Croatian tourism. The working hypothesis was that a female manager is increasingly aware of her position in society, her chances and qualities, and therefore asks for the relevant acknowledgements as well. From our recent study conducted among fifty Croatian female business leaders, it follows that:

- over one fifth of the leading female managers in Croatian tourism point out that *insufficient authority and ambition* are the main barrier to advancement of women to leadership positions.
- most women (28 per cent) tend to use *supporting* leadership style
- the biggest difference between male and female leadership styles is reflected in the following spheres: *intimate-detached, indulgent-inflexible, solo player-team player, modest-always wants more, avoids the risk-accepts the risk* (according to semantic differential model).
- 94 per cent of female managers consider that there should be more women in management positions in Croatian tourism.

Faster and more intensive employment of women in leadership positions would certainly result in a greater variety of approaches and styles in management. This would increase the flexibility necessary for competitiveness of modern Croatian tourism organizations.

Considering the limitations which derive from inadequate number of respondents, the results of this research need to be taken with a grain of salt, i.e. they should not serve as the basis for making general conclusions for the entire female population in Croatian tourism organizations. However, the results are quite indicative and statistically reliable for deeper understanding of female managers' position in business and society. In conclusion, this research might deserve an expansion for a higher sample in the future in order to make strong and general statements about perspectives of female career in Croatian tourism sector.

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ENHANCING WELLBEING OF EMPLOYEES THROUGH CORPORATE SOCIAL RESPONSIBILITY CONTEXT

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ABSTRACT

During last 25 years technological development has accelerated the globalisation process which has caused dramatic changes within and across organisation. Business performance is varying, complex, global and is changing faster than ever before. Over the time, society expectations have changed, changes have affected customers, partners and employees as well. In order to retain on the global market, organizations integrate corporate social responsibility into their business performance with the objective to reinforce their competitiveness. In the knowledge economy, where knowledge is a significant resource and the demand for more highly skilled workers has increased, employees became the most important and in fact the only remaining realistic challenge of competitive ability. Workplace wellbeing refers to mental, psychological or emotional aspect of employee's life. The awareness of management on the employees' wellbeing which takes into consideration the employees satisfaction, health and professional development is an effective approach in strengthening of an organizational performance. The aim of this paper is to analyse and assess how socially responsible orientation also incorporated in strategic human resource management can contribute to the achievement of wellbeing of employees. Strategic management of human resources includes the necessary coordination between various employees' health and performance aspects. This contributes to the balance between private and working life. Social responsible activities coordinated through strategic human resource management significantly influence the employees' wellbeing as well as competitiveness of the organisation.

Keywords: *corporate social responsibility, strategic human resource management, wellbeing, competitiveness*

1. INTRODUCTION

Globalization, technology development, demographic changes and changes in the economic concepts have strongly influenced the changes in human resource management (HRM). The 20th century is the century of information society while the 21st century is characterised as the century of knowledge society, where knowledge is significant resource and main competitive part of every organisation (Lapiņa, et al., 2014, pp. 577- 578). Since the last century the awareness of business organisations having some responsibilities to society, beyond that of making profits for the shareholders, is raising (Carroll and Shabana, 2010, p. 85). Laurinavičius and Romeris (2013, p. 58) claim that corporate social responsibility (CSR) is a commitment of an organization to meet the needs and interests of their stakeholders (shareholders, suppliers, employees, customers, community and others). Employees, being considered as one of the most important internal resource, require special attention because of their key role. In order to achieve competitive advantage, organisations should invest into intellectual human capital, ensuring safe and healthy working conditions for their employees so contributing to their wellbeing. All the aspects of employees' wellbeing make a constituent part of internal dimension of CSR.

2. THE CONTEXT OF CORPORATE SOCIAL RESPONSIBILITY

It is well known around centuries (Carroll and Shabana, 2010, p. 85) that business enterprises have some responsibilities to society beyond that of making profits for the shareholders. The concept of CSR significantly varies within specific social context. Some organizations present it as moral obligation towards certain value principles or redistribution of wealth from managers and shareholders to other stakeholders. For other organizations it represents hiding profit maximization or strategy that aims to avoid rigorous legislation in certain business segments, while there are organizations that using CSR as fashionable rhetoric when communicating with external influential groups (Omazić, 2007, p. 40).

2.1. Determination and Definition of Corporate Social Responsibility

Deliberation of CSR intensively began in the 60's of the last century when public awareness raised together with public expectations that business organisations should invest their financial resources to solve social problems. It is expected from the business organisations to direct their activities on poverty reduction, environmental protection, improvement of public health, better education, etc. (Bahtijarević- Šiber, et al., 2008, p. 561). It is simply expected from management not to manage organizations exclusively from proper interest, but to work in synergy with the environment. Some authors distinguish social obligation and social responsibility. According to Bahtijarević - Šiber, et al., (2008, p. 562) social obligation and liability of a company is to satisfy economic and legal duties and responsibilities, while social responsibility is an obligation of the company to follow good long-terms goals for society beyond legal and economical requirements. Thus, social responsibility alongside with the fulfilment of legal and economic obligations imposes ethical obligation for management to act in the society interest (Bahtijarević- Šiber, et al., 2008, p. 562). In the past 50 years there has appeared a large number of different definitions of CSR which are complete opposite to the initial Friedman's definition "the social responsibility of business is to increase its profits (Friedman, 1970, p. 122)." Carroll's definition of social responsibility has been successfully used for research purposes for many years. He differs four different categories of social responsibility involving the fulfilment of economic, legal, ethical and discretionary/philanthropic responsibilities (Carroll and Shabana, 2010, p. 89). According to Carroll (1979, pp. 500, 191, 283 referenced by Carroll and Shabana, 2010, p. 89) "the social responsibility of business encompasses the economic, legal, ethical and discriminatory [later referred to as philanthropic] expectations that society has of organizations at a given point in time". This definition made a distinction between traditional and new approach to the CSR, which it includes, ethical and discretionary/philanthropic responsibilities reflecting comprehensive social link between business and society, apart from traditionally considered economic and legal responsibilities. It is also well known in the literature the Carroll's Pyramid of CSR which illustrates his definition. Carroll's CSR pyramid (Visser, 2007, p. 33). represents four levels indicating relative importance of economic, legal, ethical and philanthropic responsibility. His four – part conceptualisation has been the most cited one. The model incorporates and gives priority to the economic dimension which is an aspect of CSR.

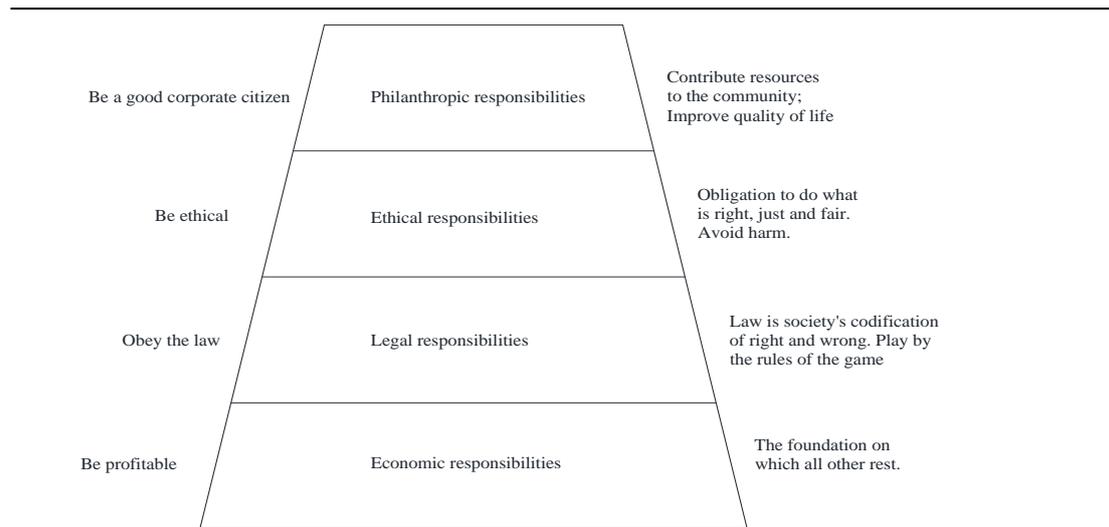


Figure 1: The Pyramid of Corporate Social Responsibility (Visser, 2007, p. 34)

Basically, Kotler and Lee (2009, p. 14) defines CSR in the similar way, as “a commitment to improve community’s well - being through discretionary business practices and contributions of corporate resources.”

European Union’s Green Paper (European Commission, 2001) entitled “Promoting a European Framework for CSR” differs two dimensions of CSR internal and external dimension. Internal dimension encompasses HRM, health and safety at work, adoption of changes in management of environmental impacts and natural resources. It represents issues related to internal stakeholders of an organisation such as investing in human capital, health and safety, managing changes and all employees’ welfare, training, education, participation etc. with the aim to enhance their wellbeing (Polášek, 2010, p. 56). External dimension comprehends local communities, business partners, suppliers and consumers. The external dimension represents external organisation stakeholders like customers and consumers, local communities, business partners and suppliers and its impact to public life in sense of human rights, and global environmental concerns, etc. Furthermore, the question is what motivates business organisations to incorporate CSR and what are the tangible benefits from involving CSR activities, practice, strategies and policies into their business. The business case for CSR relates to the specific economic and financial benefits, incorporating socially responsible activities and practise. The rationale of the business case for CSR (Kurucz et al., 2008, referenced by Carroll, Shabana, 2010, p. 101) may be categorized under four arguments: (1) reducing cost and risk; (2) strengthening legitimacy and reputation; (3) building competitive advantage; and (4) creating win - win situations through synergistic value creation. In the 21st century being socially responsible means to go beyond legal requirements and invest “more” in human capital, environmental issues and relations with stakeholders. Nowadays CSR is based on social, environmental and economic responsibility (Lapiņa et al., 2014, p. 579).

3. STRATEGIC HUMAN RESOURCE MANAGEMENT

Today, one of the major challenges for an organisation is to attract and retain skilled and highly motivated workers (Polášek, 2010, p. 56). The concept of HRM has been permanently developed since the 80’s of the last century. Nowadays practice of HRM treats people as the most important organisation capital, developing resource as well as source of strategic competitive advantage. Investing in people is considered to be the most profitable investment

in business performance (Bahtijarević- Šiber, 2014, p. 12). Employees are the most important assets of an organization that is very strategic instrument for company market competition (Oraman, et al., 2011, p. 413). One of the most important tendencies in the HRM development is emphasizing its strategic role and importance as well as exceptional development strategies of HRM. Strategic human resources management (SHRM) becomes significant and dominant new phase in development of HRM and its synonym. In fact it can be said that the concept of SHRM replaces the usual conception of HRM since everything what is done in HRM has a strategic importance and consequences. Its growing importance it is considered as the follow up of the constant HRM evolution. It connects and merges HRM with strategic management of the organisation. SHRM enables that business objectives and organization strategy are aligned with the goals and strategies of human resource (HR) and acquires sustainable competitive advantage through people. In other words it defines the intensions of organisations how to achieve their business goals by people. (Bahtijarević – Šiber, 2014, pp. 41-58). In order to meet competitive changes HRM must go beyond functional level and should be strategic partner in the organisation (Bas, 2012, p. 313). Dave Ulrich (1996, referenced by Bas, 2012, p. 313) was the first who put together the term “HR as a strategic partner” in organisations. According to Ulrich (2012, p. 313) four distinct roles of HR professionals are: administrative expert, employee champion, change agent and strategic partner. HR professionals must operate coordinated in all four areas in order to contribute the traditional functional HR orientation to a more strategic orientation. Strategic partnership is the prominent task of the HRM today and it relates to sharing the responsibility of the strategic initiatives and alignment of HR activities with the business strategy (Bas, 2012, p. 314). Bas argues (2012, p. 314) that HR can be only a real strategic partner if it (1) understands the business and takes its part in the strategy formulation process, (2) spreads the strategic word thought the organization, (3) takes an active role in the implementation of it and (4) generates the necessary competencies for the accomplishment of the strategy. Oraman, et al., (2011, p. 414) introduce “human advantage” as being competitive strategy and system-based view of the value of HR which makes towards adding value to customers, towards managing cost, through accelerating operational and management processes, and in challenging the status quo through innovation and change. “Human advantage” tell us that in information time, human capital is the key resource to reach the competitiveness rather than physical assess or financial resources. In recent years, more and more emphasizes the value of human capital or intellectual capital which represents the intangible assets such as knowledge, ideas, creativity, competence etc. (Bahtijarević- Šiber, 2014, p. 25). According to Bahtijarević- Šiber (2014, p. 25) the main characteristics of the human capital concept are: focus on value creation, HR as a key asset of the organization, the role of HR and HRM in creating value; measuring their contribution to value and organizational success and highlighting systematic reviews and decision making based on the analysis and objective data. Some authors argue that is necessary *to establish a strategic link between the internal resources of the organisation and their environment, while the success of an organisation is not based only on its internal strengths* (Barrena- Martines, et al., 2011, p. 174). SHRM achieves the synergy between organizational strategies and HR polices practices and activities and can prevent the positional threats and lead to competitive advantages in the organisation (Gilani et al., 2012, p. 237).

4. THE CONCEPT OF EMPLOYEES’ WELLBEING

The research of wellbeing at the workplace is becoming a growing topic. In the past this topic referred to the absence of disease and was bounded to physical health, while nowadays it has a broader connotation, involving physical, emotional, mental and social aspects. Individual

experiences at work can physically, emotionally, mentally and socially influence an employee, hence they spend at least one third of a working day. Working time and free time of an individual are not separated entities because very often workers do not necessarily leave their job behind when they leave the workplace. Those two entities very often overlap, which opens the space for extensive research in this area (Danna and Griffin, 1999, p. 358). The basic study of wellbeing comes from motivation theories which attempt to explain the reason why people behave the way they do and what causes of their behaviour. Organisation should consider employee's needs, investigate what makes them feel good and motivate them to work better (De Simone, 2014, p. 118). Health and wellbeing in the workplace has become a common topic in organisation research due to their mutual influence, and it is very difficult to analyse them separately. Figure 2 presents an organisational framework pointing out the factors which create wellbeing in the workplaces.

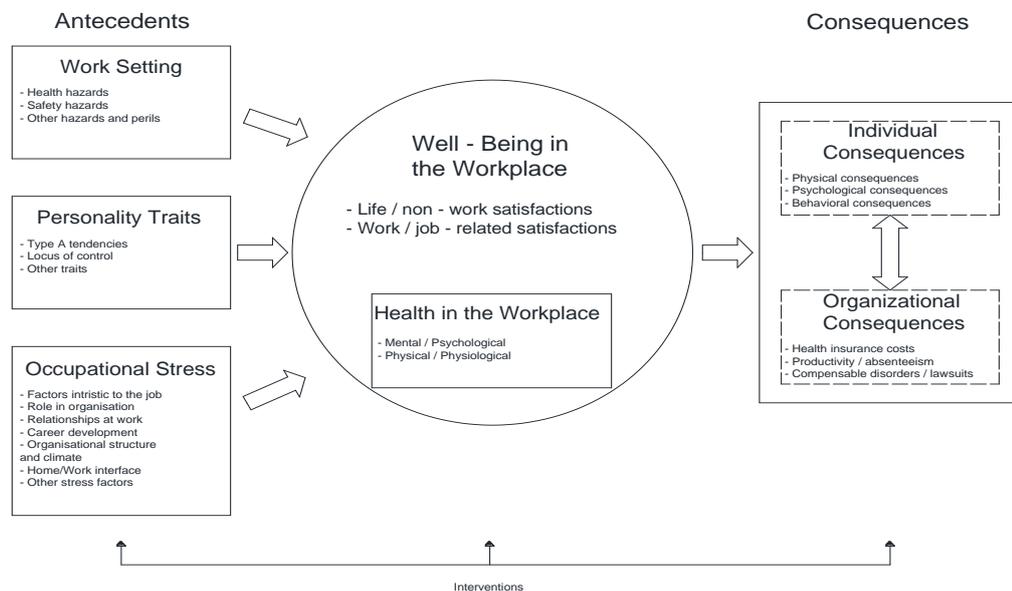


Figure 2: A Framework for Organizing and Directing Future Theory, Research, and Practice

Regarding Health and Wellbeing in the Workplace (Danna and Griffin, 1999, p. 360)

According to Danna and Griffin (1999, p. 359) in the centre of the Framework is health and wellbeing in the workplace. Wellbeing is an interaction of life and non-work satisfaction (i.e. satisfaction and/or dissatisfaction with social life, family life, recreation, etc.) and work/job related satisfaction (i.e. satisfaction and/or dissatisfaction with salary, promotion opportunities, the job itself, communication and cooperation with co-workers, etc.) as well as general health. Health is seen as a sub - component of wellbeing and it consists of mental/psychological indicators (i.e. frustration, anxiety, etc.) and physical/physiological (i.e. blood pressure, heart condition and general physical health). According to literature health and wellbeing are affected by three general sets of antecedent factors. One set of factors relates to work setting. Health hazards, safety hazards and other hazards which can create risky work settings which can negatively impact health and wellbeing of employees. Likewise, the absence of these various hazards may positively influence their health and wellbeing. Personality traits, also stated as an influencing factor, particularly Type A tendencies, locus of control and other traits play a role in determining the extent to which an

individual will display indicators of high or low level of health and wellbeing in a given organisational setting. Type A behaviour pattern generally relates to an individual who is hard driving, competitive, job involved, and hostile. Substantial research has found that Type A individuals more frequently have cardiovascular diseases and high blood pressure. Locus control refers to personal control, more specifically people with so called „internal locus of control“ believing that their own behaviour is the primary determinant of what happens to them, opposite to the „external locus of control“ who believe that external influence such as luck or powerful others are more important determinants of what happens in their lives. The third factor is occupational stress which also has direct impact on health and wellbeing. Occupational stress arises as a consequence of lack of harmony between individual needs and demands and those of the environment. In other words, occupational stress occurs when demands at work are above employee's capacity to deal with them. Cooper and Marshal (1979, referenced by Danna and Griffin, 1999, p. 371) conceptualised six potential sources of occupational stress as follows: (1) factors intrinsic to the job (i.e. work overload, shift work, long hours, travel, risk and danger, new technology and the quality of the physical working environment), (2) role in the organisation (i.e. role ambiguity, role conflict as well as the degree of responsibility for others), (3) relationship at work (i.e. with superiors, colleagues and subordinates), (4) career development together with job insecurity, (5) organizational structure and climate (i.e. lack of participation and effective consultation, poor communication, politics and the consequences of downsizing), (6) home/work interface (balance between private and working life).

New technologies, the move from manufacturing to service-based economics as well as globalisation have caused all sorts of extensive changes and rapid lifestyle which has imposed the new and intensified the existing psychosocial risks such as the aging workforce and population, increase in the number of women in the workforce, and the transformation of work patterns. The above mentioned circumstances have inevitably required a new concept of keeping employees healthier, which in turn can increase the length of time spent in the workforce (EU OSHA, 2013, p.1). According to European Agency for Safety and Healthy at Work (EU OSHA, 2014b, p. 10) psychosocial risk arise from work design, organisation and management, as well as a poor social context of work, and they may result in negative psychological, physical and social outcomes such as occupational stress, burnout or depression. Recent defining of occupational stress differs from the concept mentioned by Danna and Griffin, (1999, p. 370) as the concept comprehension has been developed. Psychosocial risks (Cox and Griffiths, 2005, referenced by Jain, et al., 2011. p. 622) have been defined as those aspects of the design and management of work, and its social and organisational context, that have the potential for causing psychological or physical harm. Danna and Griffin (1999, p. 359.) framework also identifies two levels of consequences related to the wellbeing in the workplace. The first level reflects the consequences for an individual including physical, psychological and behavioural consequence. The second level has implications to organisations and includes health insurance costs, productivity and absenteeism as well as compensable disorders/lawsuits. These two levels are interfering with each other.

4.1. The Role of Occupational Health and Safety in Maintaining Employees' Wellbeing

Occupational Health and Safety (OSH) is one of the key activities of HRM. It is defined as “a set of technical, medical, legal, social and other measures and activities aiming to prevent and eliminate the hazards and harmful effects that could threaten the lives and health of people at work“ (Ivandić, et al., 2011, p. 257). The role of OSH is to create a safe working environment

and to protect employees from potential accidents, occupational diseases as well as work related diseases.

According to EU OSHA Report (EU OSHA, 2014a, pp. 4-7) in 2002 the European Commission calculated the cost of work related stress in the EU - 15 at €20 billion per year. Among the employees suffering work - related health problems, stress, depression or anxiety was reported as the most serious health problem by 14 %. In 2010 the European Survey of Enterprises on the New and Emerging Risks (ESENER) showed that managers are also aware of this issue, with finding that 79% of European managers are concerned about stress in their workplaces.

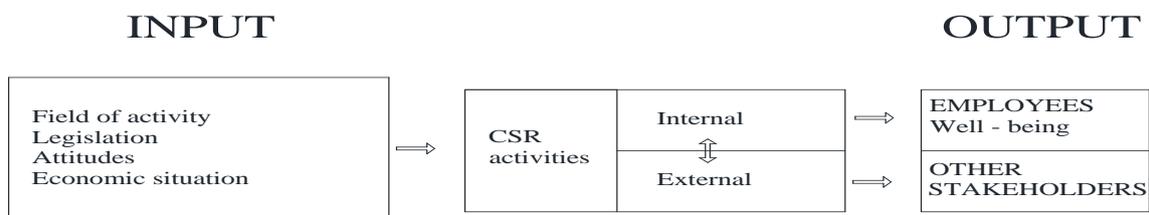
Furthermore, less than 30% of organisations in Europe have procedures for dealing with occupational stress, harassment and third - party violence. ESENER has shown that more than 40% of European managers consider that psychosocial risk is more difficult to manage than traditional OSH risk. In 2013 the cost to Europe of work related depression was estimated to €617 billion annually. The total was made up of costs to employers resulting from absenteeism and presentism (€272 billion), loss of productivity (€242 billion), health care cost (€63 billion) and social welfare costs in the form of disability benefit payments (€39 billion). The above mentioned figures show that the problem with the psychosocial risks and their consequences is quite huge in financial, medical and social terms and only coordinated OSH activities can mitigate their negative effects.

5. THE INFLUENCE OF CORPORATE SOCIAL RESPONSIBILITY TO WELLBEING

The raising awareness of CSR activities induces the questions on how socially responsible organisations influence the employee's wellbeing. It is big challenges for SHRM how to recruit, retain and motivate employees applying socially responsible principles. Nowadays employees are more and more aware of the responsibility of organisations towards society.

The essential approach to CSR has its roots in the stakeholder theory and says that long term value of organisation rests primarily on the knowledge, abilities and commitment of its employees and its relationship with investors, customers and other stakeholders (Wheeler and Sillanpää, 1997, referenced by Tamm, et al., 2010, p. 9). The role of managers is to satisfy different stakeholders which can influence their organisation. According to stakeholders' view it is useful for an organisation to engage CSR activities that stakeholders find important in order to get their support for organisation (Tamm, et al., 2010, p. 9). The following figure developed by Tamm, et al. (2010, p. 9) shows the input - output analysis framework which shows the relations between employee's wellbeing and CSR.

Figure 3. CSR in the input - output framework (Tamm, et al., 2010, p. 10)



The framework has three elements: input, output and CSR activities in the middle. Input to CSR activities represents activities inside the organisation which are determined by the

general background in economy such as economic situation, legislation, attitudes and the field of activity. Output of CSR activities is related to employees' and other stakeholder's wellbeing. This model tries to connect internal and external social responsibilities. Internal CSR is directly linked to employees' wellbeing and can be measured through job satisfaction indicators which answer what employees expect from the organisation. The literature suggests that employees expect that organisation demonstrates its social responsibility towards them by guaranteeing considerable rewards and recognition, offering personal development opportunities and work - life balance, ensuring OSH, involvement and empowerment as well as good retirement benefits (Maignam et al. 2005, referenced by Tamm, et al. 2010, p. 12). The empirical evidence shows that organisations undertaking CSR actions can face more efficiently the pressures and social demands from the environment and their stakeholders. (Bhattacharya et al., 2008a; Freeman et al., 2010; Husted and Allen, 2007, referenced by Barrena- Martines, et al., 2011, p. 174). *If an organisation is viewed as socially responsible in favour of the community and is fulfilling its social obligations, employees also tend to assess it responsible towards them* (Tamm, et al., 2010, p. 13). The empirical research based on the survey of 3637 employees in Estonia, Latvia and Lithuania conducted by Tamm, et al. (2010, p. 15) has confirmed positive link between CSR and wellbeing of employees. Employees feel more satisfied in the organisations committing themselves more socially responsible. This indicates that developing socially responsible practices can be seen as a means to enhance job satisfaction among the employees. Employees play an important role in implementation of organisational strategies, especially CSR strategies. Referring to Sharma et al. (2009, referenced by Barrena- Martines, et al., 2011, p. 177) a strong organisational culture reinforced by responsible HR management practice can ensure high level of success in the market by improvement of employee's satisfaction, their productivity, customer loyalty, legal compliance and the approval of society. *SHRM concept mentioned by Martin- Alcazar et al. (2005, 2008, referenced by Barrena- Martines, et al., 2011, p. 177) represents an evolution of the traditional HR concept towards a new integrative perspective which includes: a vertical link with the strategic management process, a horizontal link with the HR practices and an external link with other organisational and environmental factors. Implementing CSR activities through SHRM helps to retain and motivate employees, and increases their wellbeing and reinforces organisational performance and sustainability.*

6. CONCLUSION

Today organisations play a vital role in the development of society and their duties go beyond their economic functions and legal requirements. In order to satisfy stakeholders' expectations they incorporate social, ethical and environmental commitments to their business performance. CSR as a comprehensive concept incorporated into organisation strategy increases their competitiveness. In the new global economy, employees have become a central point for organisations as one of the factors to gain competitive advantage (Zakaria, et al., 2014, p. 359). In the past the employee was simply an executor of the given task, but today human capital is in the centre of an organisation and can significantly contribute to the achievement of organisation goals. The development of technology is significant which opens a wide space for competitiveness improvement through investment in human capital. Organisations committed to implement CSR activities into their business performance significantly influence the employee's wellbeing. Wellbeing at work as a comprehensive concept, including well balanced physical, psychical, emotional and social issues inside and outside of a workplace, contributes to the total personal benefit of each employee, as well as to the organisation long- term effectiveness and competitiveness.

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SOCIAL ENTREPRENEURSHIP AS A FORM OF SOCIAL RESPONSIBILITY IN BULGARIA

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ABSTRACT

Social entrepreneurship is becoming a popular form of social responsibility and a way to solve a variety of urgent social problems. In order for a society to boost social entrepreneurship it needs a specific environment where such ideas can emerge and develop into an active business activity. This paper aims to provide a comprehensive literature review of the terms social responsibility and social entrepreneurship and to examine the current social entrepreneurship activities in Bulgaria. The analysis highlights the importance of social entrepreneurial ideas for improving the business climate in the country. A number of case studies are discussed to provide evidence of particular entrepreneurial activities which have successfully solved a number of social problems.

Keywords: *corporate social responsibility, social entrepreneurship, social responsibility*

1. INTRODUCTION

There are a number of people and organizations contributing to the rise of social entrepreneurship. Today, the field has expanded to include the entire ecosystem involved with the promotion, support, and network of those involved with an endeavor designed to make the world a cleaner, more-equitable, healthier, and better-educated place. Another aspect of the social entrepreneurial movement is to approach social change with business rigor and analytical tools. Social entrepreneurship is an innovative form of business, which successfully combines social aims and commercial practice. Social entrepreneurship has emerged as a response to chronic social problems: unemployment, poverty, community fragmentation etc. Social entrepreneurship works where the government cannot work (due to the lack of funding), and the business does not want to (because of low profitability). The role of social entrepreneurship is to find a flexible and quick problem solving method. Every entrepreneurship is to a certain extent social entrepreneurship, and social entrepreneurship has as a goal to show the public sector how to be more effective and efficient. In most cases social entrepreneurship is about the resourcefulness and the intelligence of the social entrepreneurs to do something good or something needed by society.

The social agenda of the European Commission aims at raising living standards and improving living and working conditions, strengthening social cohesion and combating exclusion, promoting equal opportunities, and safeguarding sustainability. Currently Bulgaria is trying to find a solution to the different problems that it is facing such as: unemployment, aging population, changes of economic gender roles, and environmental problems. Bulgaria is among the poorest of the EU Member States and needs to appropriate policies to bring the country closer to the EU levels. Over the last two decades Bulgaria has undergone difficult transformations as part of its transition to market economy and democratic political system. The transitional period in the country has been accompanied by a sharp economic decline, increased poverty and unemployment, and a high level of corruption. In its effort to come

closer to the economic levels of the EU Countries, Bulgaria will have to invest more in social development and try to solve its own specific social problems. Currently, the low level of public spending in health, education and social protection is not conducive to social development. In addition, Bulgaria will have to address specific issues such as combating corruption and introducing reforms of the justice system and of public administration, in order to ensure proper enforcement of the law. (Dulevski, 2013)

This colorful palette of social problems should make the country emphasize on and search for solutions based on social entrepreneurial ideas. According to the Economic and Social Council (ESC), social enterprises in Bulgaria should be encouraged to develop as a business model, not only within the so-called third sector through civil associations and foundations, but also in the private sector through regular business initiatives. It is necessary to discover and promote best practices and positive models achieved in Bulgaria, as well as to create conditions for the spread of good examples through the creation of national and international networks for the exchange of knowledge and experience.

This paper aims to provide a comprehensive literature review of the terms social responsibility and social entrepreneurship and to examine the current social entrepreneurship activities in Bulgaria. The analysis highlights the importance of social entrepreneurial ideas for improving the business climate in the country through several case studies of particular entrepreneurial activities, which have successfully solved a number of social problems.

2. SOCIAL ENTREPRENEURSHIP

Definitions of social entrepreneurship focus on the operating sector and/or the processes and resources used by social entrepreneurs. These include identifying the manner in which the social enterprise is established (Dorado, 2006) as well as the primary activities undertaken by the social entrepreneur (Zahra et al., 2009).

Gregory Dees, widely considered to be the “father” of the field of social entrepreneurship, in an unpublished paper written in 1998, claimed that social entrepreneurs play the role of change agents in the social sector by:

- Adopting a mission to create and sustain social value (not just private value);
- Recognizing and relentlessly pursuing new opportunities to serve that mission;
- Engaging in the process of continuous innovation, adaptation, and learning;
- Acting boldly without being limited by resources currently in hand;
- Exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created.

In defining social entrepreneurship this way, Dees helps the understanding of the major characteristics of business entrepreneurship that apply, the characteristics that make social entrepreneurship unique, and how the two are blended.

For the purpose of this paper the authors will only discuss social entrepreneurship definitions after 2006 as a more modern understanding of the concept is needed. According to Tracey & Jarvis (2007) “the notion of trading for a social purpose is at the core of social entrepreneurship, requiring that social entrepreneurs identify and exploit market opportunities, and assemble the necessary resources, in order to develop products and/or services that allow them to generate “entrepreneurial profit” for a given social project.” Yunus (2008) defines it by claiming that “any innovative initiative to help people may be described as social entrepreneurship. The initiative may be economic or non-economic, for-profit or not-for-profit.” Zahra, Gedajlovic, Neubaum, and Shulman (2009) claim that “social entrepreneurship encompasses the activities and processes undertaken to discover, define, and exploit opportunities in order to enhance social wealth by creating new ventures or managing existing organizations in an innovative manner.”

Masseti (2008) introduces the Social Entrepreneur Matrix (SEM). Based on whether a business has a more market or socially driven mission and whether or not it requires profit, the SEM combines those factors that most clearly differentiate social entrepreneurship from traditional entrepreneurship. Martin and Osberg (2007) define social entrepreneurship as having the following three components: (1) identifying a stable but inherently unjust equilibrium that causes the exclusion, marginalization, or suffering of a segment of humanity that lacks the financial means or political clout to achieve any transformative benefit on its own; (2) identifying an opportunity in this unjust equilibrium, developing a social value proposition, and bringing to bear inspiration, creativity, direct action, courage, and fortitude, thereby challenging the stable state's hegemony; and (3) forging a new, stable equilibrium that releases trapped potential or alleviates the suffering of the targeted group, and through imitation and the creation of a stable ecosystem around the new equilibrium ensuring a better future for the targeted group and even society at large.

Hockerts (2006) claims that "social purpose business ventures are hybrid enterprises, straddling the boundary between the for-profit business world and social mission-driven public and nonprofit organizations." This is the definition supported mostly by the authors of this paper as it reflects to a high extent the current social and economic environment in Bulgaria.

Traditional "for profit" and social entrepreneurs would do well to learn from each other. There are forums where all kinds of entrepreneurs can gather to share experiences and knowledge (a good example is IESE's annual Doing Good and Doing Well conference, the largest student-run event on responsible business and sustainability in Europe). These conferences and initiatives gather experts from all sectors, allowing attendees to learn best practices to achieve sustainability. Vaccaro (2015) makes a suggestion of what traditional business can take from social entrepreneurs:

- High aims – high motivation: Social entrepreneurs are primarily looking to solve big problems in society, such as poverty, health, education, equal opportunities, etc. This encourages them to set high objectives and makes them more motivated (and thus the rest of their teams), knowing that they are working for an important cause.
- Markets are the means, not the goal: When starting a social venture, entrepreneurs see the problem first and then use the markets as a way to solve it, and not the other way around.
- People at the center: This is perhaps the main lesson every entrepreneur and manager should apply to their companies. When you work in a social enterprise you discover that people and their needs are at the center of organizational attention. This means internal and commercial operations are carried out with the intention to improve lives: not only the lives of customers, but employees, communities and other relevant stakeholders as well. This might not be new, but it is the key to making any company sustainable through the years.
- Financial sustainability: Profits are important for social entrepreneurs, but only in so far as they are an indicator of a financial sustainability, which in turn guarantees the achievement of the social mission. Every company has to be financially sustainable but profit concerns must not divert the social objectives of the organization.

In the Bulgarian legislation there is no legal definition of social enterprise, nor are there any rules that regulate their status, form and activities. A Bulgarian legal act where the term "social enterprise" is used still does not exist.

The existing forms of social entrepreneurship in Bulgaria for the moment are **non-profit organizations which perform profit activities** and use that profit for financing of the social mission of the organization. Another model is a **non-profit organization which provides employment** of people with disabilities or provides training services (for, example trainings

for development of labor abilities). The third popular model is **non-profit organizations engaged with social assistance**. The fourth form of social entrepreneurship in Bulgaria is the **cooperative**. Historically it has had the longest practical application, mainly in the period after World War II until 1990, although it is rarely considered social entrepreneurship per se. In the survey conveyed by The South East Europe Transnational Cooperation Programme, **80% of the Bulgarian social enterprises note the lack of governmental policy** as a major obstacle to social entrepreneurship. Social enterprises in Bulgaria operate in different sectors. They are most frequently involved in:

- providing social services;
- providing employment for people with disabilities;
- mediation in finding a job for unemployed persons;
- providing healthcare services;
- activities related to education and others.

The provision of training and educational services is among the key sectors for social enterprises in Bulgaria.

3. SOCIAL RESPONSIBILITY

Vogel (2005) defines CSR, or business virtue, as “practices that improve the workplace and benefit society in ways that go above and beyond what companies are legally required to do.” He concludes that the market for virtue is limited, but CSR “enables citizens to both express their values and possibly influence corporate practices, by ‘voting’ their preferences through what they purchase, whom they are willing to work for, and where they invest.”

The European Commission puts forward a new definition of CSR as “the responsibility of enterprises for their impacts on society”. Respect for applicable legislation and for collective agreements between social partners is a prerequisite for meeting that responsibility. To fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations with the aim of:

- maximizing the creation of shared value for their owners/shareholders and for their other stakeholders and society at large;
- identifying, preventing and mitigating their possible adverse impacts.

To maximize the creation of shared value, enterprises are encouraged to adopt a long-term, strategic approach to CSR, and to explore the opportunities for developing innovative products, services and business models that contribute to societal wellbeing and lead to higher quality and more productive jobs. To identify, prevent and mitigate their possible adverse impacts, large enterprises, and enterprises at particular risk of having such impacts, are encouraged to carry out risk-based due diligence, including through their supply chains.

Corporate social responsibility is applicable to all enterprises. This communication is adopted together with a complementary but distinct Social Business Initiative (SBI) which supports a specific kind of enterprise, namely those whose primary purpose is explicitly social and/or environmental. These enterprises reinvest profits for that purpose and their internal organization reflects the societal objectives. The SBI deals with the ecosystem required for social business and social innovation to flourish and contribute to the European social market economy.

In the Bulgarian legal doctrine, as well as in most other European legal doctrines, there are two views regarding what should be the focus in defining the criteria to be met by the social enterprise – the legal form of the entity, giving it an explicit legal form and regulatory framework – or the behavior of the entity. The draft definitions indicated below show that the

Bulgarian framework (so far only strategic) favors not so much the legal form, which will organize the social enterprise as a subject of the law, but rather its objectives and how it aims to pursue them. It is important that the activities of the social enterprise should be geared towards the provision of goods or services to persons with disabilities, the involvement of these actors in the production and provision of goods or services so as to achieve a positive social impact on society.

According to the National Report on Social Economy Sector in Bulgaria, the following definitions apply to social enterprise:

- cooperatives, businesses and organizations duly registered under national law, whose business aims at social and humanitarian effects and which reinvest their profits for social causes;
- a business with leading social objectives, whose surplus is reinvested back into the business or in the community;
- a business that combines market opportunities with social causes, so that the main priority are the people and their needs.

Also, the report defines "social entrepreneur" as a person who mobilizes resources and uses opportunities to meet existing needs to help disadvantaged people. In this process s/he may use "compass for social enterprise" – a method to identify the affiliation of a legal entity to the social economy.

4. SOCIAL ENTREPRENEURSHIP CASES IN BULGARIA

The National Alliance for Social Responsibility

The National Alliance for Social Responsibility /NASR/ is a national non-governmental organization working actively for the creation and realization of effective national and local social policies, activities and services. The founders have made it their aim to unite the possibilities and stimulate the efforts of NGOs, corporate subjects, municipalities and other entities to create a socially responsible environment, stimulating social engagements in the community network, helping the people in Bulgaria afford a better quality of life.

NASR realizes its activities through long-term aims in several directions:

- Support for persons with disabilities and other social groups mainly through the National Network of Social Service Providers, participation in the National Council for Integration of Persons with Disabilities and an active European partnership through the EASPD as its representative in Bulgaria.
- Formation and implementation of active local social policies, creation and development of social responsibility through the municipalities by increasing their opportunities and contribution to improving the social services, the quality of life of people in need and all citizens.
- Support for development of corporate social responsibility in Bulgaria and focusing on person centered approaches, especially those concerning people in need, including people with disabilities. Some of the biggest corporations in Bulgaria, which are members of NASR, for example Solvey Sodi AD, KCM 2000 AD, Aurubis Bulgaria AD and others, have made a strong contribution to reaching these aims.
- Spirituality, art and culture have an important role in the activities of NASR; they are a crucial condition for the success of any initiative and an integral part of the criteria for a better life.

Among their successful projects are: Pass It On — From Raising Awareness to Open Labour Market Opportunities for People with Disabilities through Vocational Training and Lifelong Strategies; The Common Voice Network Project - to build an international network for national lobby networks of social service providers for persons with intellectual, multiple

disabilities and autism in the Central and Eastern European region; Empathy – an active social inclusion of people with disabilities through promotion and implementation of policies for equal opportunities and social inclusion by the creation of a Support Center for People with Disabilities.

SOS Entrepreneurs

SOS Entrepreneurs Foundation is a not-for-profit Bulgarian organisation, which offers supporting service for micro, small and medium-sized enterprises and for new entrepreneurs and start-ups in all phases of creation or consolidation of their project. Its mission is to promote and develop social entrepreneurship and private initiative in Bulgaria. SOS Entrepreneurs Foundation supports and accompanies entrepreneurs by providing information and consultancy. Its vision is to act as intermediary between companies seeking support and the supporting organization.

The main activities of the Foundation include:

- elaborating informational materials, databases, development of research, manuals, analyses and strategies;
- supporting civil society initiatives, projects, NGOs and entrepreneurs;
- organizing and participating in workshops, roundtables, conferences and thematic forums, seminars and workshops;
- establishing and developing networks of cooperation and participation in such networks, exchange of experiences, training and partnership initiatives;
- promoting case studies, "best practices" and innovative approaches among entrepreneurs in Bulgaria.

Junior Achievement

Junior Achievement /JA/ is among the world's leading organization, offering contemporary programs and courses in business, economics, and entrepreneurial spirit development through educational and practical activities in economic and financial literacy, business skills, leadership, and success strategies. Since 1997 the organization motivates young people to be active and proactive and prepare them to know how to be able to realize their ideas in a competitive environment. JA Bulgaria realizes a number of initiatives with a special focus towards providing opportunities for personal development of disadvantaged young people:

- The Smart Start and Manager for a Day initiatives in 2012 featured the participation of 50 high school students of Roma ethnic origin from schools in Samokov, Sliven, Kotel, and Yambol. They all spent a busy working day at companies and institutions and learned how to write a CVs and motivation letters. Every year, young people from the SOS Kinderdorf network take part in the Manager for a Day initiative. Even without enjoying a special priority, they get selected by leading companies and institutions as one-day interns.
- JA Bulgaria gives opportunity to disadvantaged students (usually young people living in foster care) to be part of its summer internship program.
- In partnership with Coca Cola HBC Bulgaria, JA Bulgaria delivered a specialized one-week training in personal development, career management and entrepreneurship to students without parents living in the Foster Care Home in Doganovo village near Sofia.
- JA Bulgaria designed in 2014 partnership project on financial literacy with Metlife Bulgaria with an exclusive attention towards 4 schools in Sofia characterized by disadvantaged location in less developed neighborhoods, lower income of the families and poorer educational achievements. Financial literacy is especially crucial for young people with such background.

- JA Bulgaria “Social cohesion” project, funded by the U.S. Embassy, piloted a social innovation model for local community development and active participation of stakeholders through encouraging entrepreneurship education in grades 1-7 in schools in preselected economically and socially disadvantaged areas of the country. Two regions characterized with ethnically diverse population, low economic activity and high levels of unemployment benefited from the project – Shumen and Targovishte.
- JA Bulgaria project “Green Entrepreneurship for Sustainable Development” was specifically created with the idea to contribute to the creation of businesses that respect nature and embed a concern for nature at the very heart of their economic activity. JA Bulgaria’s team took part in a tree-planting activity in 2014 (together with their partner company Traventuria) and their goal is to take part in at least one such activity every year.

5. ABLE

The Association of the Bulgarian Leaders and Entrepreneurs (ABLE) is a non-governmental organization, established by alumni of Bulgarian Young Leaders Program (BYLP). Their mission is to develop active civil society, inspire leadership and promote entrepreneurial culture in Bulgaria. ABLE is a vibrant community of entrepreneurial young people who try to make a difference in the Bulgarian reality.

ABLE engage in a variety of activities and projects among which different public events, competitions, incubator initiatives and others. The project ABLE Mentor aims to connect young professionals with high-school students and build a network of people, who are willing to share their experience, knowledge, personal challenges and aspirations. The project raises awareness among students about entrepreneurship as a means to overcome difficulties on the way to their goals. It makes information about career and academic development readily available. Finally, it helps students to dare make their first step to that long desired project. *I-hub* is another initiative of ABLE that aims to bridge the gap between the academic education and the design of marketable technological products. It is a two-month program that encourages ***cross-field innovation*** and the cooperation between students and professionals with different backgrounds which is crucial for both their personal and professional advance. *I-hub* is also an opportunity ***for the best ideas to become reality***. The program enables the participants to gain fundamental knowledge about how they can apply their ideas in the world of business through:

- short study of basic economics and business concepts;
- contest for market-oriented technological products developed in teams;
- exchange of knowledge and know-how with professionals in the field of business and innovation;
- constant feedback by mentors with experience;
- presentations before investors.

The Unicredit Foundation

UniCredit Foundation was set up in 2003 as a corporate foundation of UniCredit and as testimony to the work done by the Group to promote a comprehensive set of values that form the basis of its corporate identity. Through corporate philanthropy, the Foundation intends to contribute to the growth of the community it works in, promoting the processes of social cohesion against a complex backdrop of inequality, need and transformation that characterizes modern society. With this objective, UniCredit Foundation undertakes to promote long-term initiatives, to seek innovation in different areas of social action and to construct effective, lasting partnerships with non-profit organizations.

The Foundation supports actions and players representing the social economy, which combine charity work with market principles to provide an ongoing response to the need for welfare services in the community, while simultaneously creating employment. The social objective may be sought through the direct provision of services in the field of welfare, education and training, healthcare, etc. or through the production of goods and services of any type, intended to create job opportunities for vulnerable individuals.

UniCredit Foundation leverages the social enterprise model in its relationships with different non-profit players, relying on companies' natural predisposition to economic and financial sustainability and levels of efficiency usually required of them. It enables them to continuously produce and supply goods and services of social benefit, while simultaneously helping groups at serious risk of exclusion to find employment.

Another essential feature of the projects supported by UniCredit Foundation is innovative social research, combining the development of new means of interaction between the public sector, the private sector and the non-profit sector to come up with sustainable solutions on emerging social issues.

6. CONCLUSION

In order to encourage social entrepreneurship, it is necessary to ensure better awareness and promotion of the benefits and general impact of social enterprises to the economic and social development. The social and economic hardships during the last 20 years in Bulgaria can be overcome through the discovery and promotion of best practices and positive models as well as by spreading good examples of social entrepreneurship and social responsibility.

This aim of this paper was to provide a comprehensive literature review of the terms social responsibility and social entrepreneurship and to examine the current social entrepreneurship activities in Bulgaria. Several case studies were discussed to illustrate the successful implementation of particular entrepreneurial activities, which have successfully solved a number of social problems. The analysis highlighted the importance of social entrepreneurial ideas for improving the business climate in the country. A major future challenge is the formulation of a sound legislative basis for social entrepreneurship as well as the development and implementation of governmental policy to support social entrepreneurs in their efforts.

ACKNOWLEDGEMENT

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FORECASTING HOUSING AFFORDABILITY IN SELECTED POST-TRANSITION ECONOMIES

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ABSTRACT

In this research housing affordability as a measure of population's ability to afford or to purchase a particular item, such as a house, indexed to the population's income is investigated. The main aim of this research was to forecast housing affordability in three selected post-transition economies: Croatia, Latvia and Serbia. Overall, five indicators of housing affordability are studied: Price to income ratio; Gross rental yield city centre; Gross rental yield outside of centre; Mortgage as a percentage of income and Affordability index. Due to data deficiency, the values of aforementioned indicators are analysed for the period from 2009 to 2015, based on yearly data, and only short-term forecasts are conducted. NUMBEO database was used as data source. In order to determine short-term future trends of change in these indicators, six forecasting models were applied, namely: naïve model I, naïve model II, naïve model IIa, geometric mean forecasting model, simple average forecasting model and single exponential smoothing model. The best forecasting model for each indicator and for each country is selected according to the Mean Absolute Percentage Error (MAPE) criterion. The forecasting model with the lowest MAPE value is used to determine the trend based forecast of housing affordability. According to the research results, housing affordability level, in general, is likely to rise in Croatia. Furthermore, there is high probability that housing affordability in Latvia is going to increase in the next years. In contrast, housing affordability in Serbia is most likely to decrease in the following period.

Keywords: *forecasting models, housing affordability, indicators, measures of forecasting accuracy, post-transition countries*

1. INTRODUCTION

Housing affordability is considered as one of the key factors that can be used to describe the socioeconomic stability and development of a state. It aims to ensure that the housing provided is affordable to all income earner groups, i.e.: low-income, middle income and high income groups (Suhaida et al. 2011). Dumičić et al. (2011) modelled the affordability of new dwellings in Croatia using the multiple linear regression approach and concluded that the price of new dwellings is most strongly influenced by new marriages and the rate of average wages not only in the capital, but in the whole of Croatia. According to Pittini (2012), the current financial and economic crisis is increasing the pressure on European household budgets and housing affordability is becoming an issue throughout Europe. Anyhow, it should be emphasised that housing affordability varies significantly across the EU countries. Since affordability is measured against other economic variables, e.g. Gross Domestic Product or

purchasing power, the concept is sometimes relative and context-sensitive. Still, housing affordability is most commonly defined as the percentage of income that a household is spending on housing costs. Notwithstanding the general agreement that housing affordability in Europe is being increasingly stretched, the answer to the question: what is affordable still depends on national interpretations. The most traditional concept of affordable housing suggests that households which spend more than 30% of their gross income to acquire adequate and appropriate housing have an affordability problem (Pittini, 2012). Nevertheless, this definition is far from being commonly accepted, and it is questionable which costs should be included. In line with the Eurostat's definition, a household is considered "overburdened" when the total housing costs represent more than 40% of disposable income ("net" of housing allowances), where housing costs include mortgage or housing loans interest payments for owners and rent payments for tenants and where utilities and other costs related to regular maintenance and structural insurance are also included (Pittini, 2012).

As stated previously, housing affordability is believed to be a key measure of a country's socioeconomic stability. This research was therefore carried out primarily to identify possible forecasting models on the basis of selected housing affordability indicators. Namely, in this research, we observed housing affordability as a measure of population's ability to afford or to purchase a home. Five indicators of housing affordability were used in the empirical analysis. Namely: Price to income ratio; Gross rental yield city centre; Gross rental yield outside of centre; Mortgage as a percentage of income and Affordability index. Due to data deficiency, the values of the aforementioned indicators were analysed for the period from 2009 to 2015, based on yearly data. Accordingly, only short-term forecasts were conducted. NUMBEO database was used as data source. In order to determine short-term future trends of change in these indicators, six forecasting models were applied. The best forecasting model for each indicator and for each of the three selected countries was chosen using the Mean Absolute Percentage Error (MAPE) criterion.

The remainder of this paper is as follows. After a brief introduction, in section two, a review of relevant literature is given. In section three we discuss the results of conducted statistical analysis and the conclusion is presented in section four.

2. LITERATURE REVIEW

The term "housing affordability" has become popular in the last twenty years or so, replacing 'housing need' which once dominated the discussion about providing adequate housing for all (Whitehead, 1991). Since the early 1990s the increasing concerns over the rising levels of homelessness, housing costs, mortgage defaults and foreclosures, 'negative equity' experienced by households, declining neighbourhoods, and overheated housing markets, have made housing affordability the focus of housing policy discussion (see for instance Whitehead, 1991; Freeman, Soete, 1997). The term "housing affordability" can be defined as the ability to purchase housing, but that is where consensus stops. Husock (1993) defined housing affordability as concerned with standards of housing consumption which captures the opportunity cost that has to be sacrificed in order to obtain housing. Furthermore, according to his research, housing and basic non-housing goods are taken as goods whose consumption has a socially desirable minimum within the society (i.e. merit goods). Stated otherwise, affordability implies the ability of households to pay the costs of housing without imposing constraints on living costs (Stone, 2006). Freeman (1997) stressed that housing affordability focuses on the relationship between housing expenditure and household income, and defined a relative or absolute standard in terms of the income above which housing is regarded as unaffordable. Affordability considers the cost of housing as well as the quality of housing and whether the household is left with enough income for other necessities of life after paying the

cost of housing. There are different perspectives on the maximum percentage of income that households of different sizes, compositions or incomes are expected to pay for housing. Furthermore, the difficulty in making precise use of the concept in a way that is generally acceptable is directly linked to the imprecise and changing definitions of housing cost and income, and to a lack of analytical techniques that could be applied. The shelter poverty measure (Stone, 2006), can be perceived as another definition of housing affordability. It uses a sliding scale to reflect the fact that upper income and smaller households can afford to spend much more than 30 percent of their incomes on housing and still have enough income left over to satisfy other basic needs, whereas extremely low income households that spend only 10 percent of their incomes on housing costs may be forced to live without some essential goods.

Many studies have argued that housing affordability measurement is complex. Reliance on the measure of house price to income ratio would give less accurate results as discussed by Stone (2006) or Gan and Hill (2009). In their study, Gan and Hill (2009) compared two towns in two countries and measured housing affordability using three different measures, namely: purchase affordability, repayment affordability and income affordability. Their literature review revealed that Price-Income Ratio is the most commonly used indicator of housing affordability. Apart from income and house price aspects that could indicate someone's ability to pay for a house, housing affordability could also be seen in terms of education level, type of occupation, number of households that work and have children, pay monthly house instalment or receive housing subsidies (see for instance Gyourko and Linneman, 1996).

This literature review shows that it is necessary to study housing affordability and forecast its future rates. Housing affordability studies conducted in post-transition economies are especially valuable since their housing affordability problem is an element of the social and economic transition process.

3. STATISTICAL ANALYSIS OF HOUSING AFFORDABILITY

Altogether five indicators of housing affordability were observed in this study: Price to income ratio; gross rental yield city centre; Gross rental yield outside of centre; Mortgage as a percentage of income; and Affordability index. The values of these indicators were observed for three selected post-transition economies: Croatia, Latvia and Serbia. Because of data unavailability, the values of indicators are observed for the period from 2009 to 2015 only. In order to determine the trends of change in the indicators, six forecasting models were developed. The following forecasting models were used: the status quo naïve model (I), the difference naïve model (II), the rate of change naïve model (IIa), geometric mean forecasting model, simple average forecasting model, and single exponential smoothing model. The best forecasting model for each indicator and for each country was selected according to the MAPE criteria. In other words, the forecasting model with the lowest MAPE value was used to determine the forecasted future rate of housing affordability.

The indicator Price to income ratio was calculated as a ratio of median house price and median family disposable yearly income. In order to calculate the Price to income ratio the house price was based on the assumption that the average apartment has 90 square meters which price per square meter is the average price of square meter in and outside of city centre (NUMBEO, 2015a). The family disposable yearly income is the yearly average net salary multiplied by 1.5 (NUMBEO, 2015a).

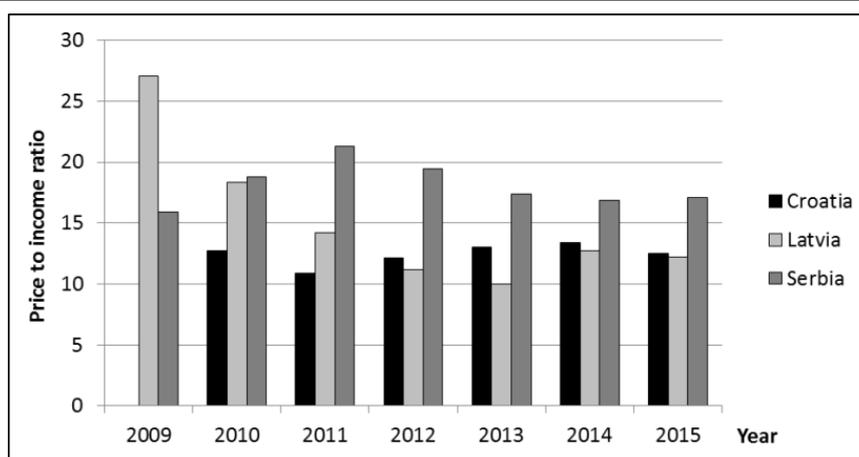


Figure 1: The Price to income ratio in Croatia, Latvia and Serbia in the period from 2009 to 2015 (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b)

Table 1: The Price to income ratio forecasting for Croatia, Latvia and Serbia (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b, Authors' calculations)

Year	Croatia		Latvia		Serbia	
	Actual values	Forecasts*	Actual values	Forecasts**	Actual values	Forecasts***
2009	-----	-----	27.08	-----	27.08	-----
2010	12.73	12.73	18.33	-----	18.33	-----
2011	10.87	12.68	14.17	12.41	14.17	21.70
2012	12.15	12.63	11.17	10.95	11.17	23.74
2013	13.00	12.58	10.00	8.81	10.00	17.65
2014	13.37	12.53	12.71	8.95	12.71	15.34
2015	12.48	12.48	12.19	16.15	12.19	16.32
2016	-----	12.43	-----	11.69	-----	17.28
2017	-----	12.38	-----	11.21	-----	17.49

* Geometric mean forecast model, MAPE=5.02%; ** Naive model IIa, MAPE=17.68%; *** Naive model II, MAPE=7.77%

It might be concluded that housing affordability rises if the Price to income ratio falls. If the Price to income ratio is decreasing, that would mean that the positive effect (increase) of family disposable yearly income change has overcome the negative effect (increase) of house price change. Figure 1 and Table 1 provide insight into the actual values of the Price to income ratio in Croatia in the period from 2010 to 2015 and in Latvia and Serbia in the period from 2009 to 2015. According to the Price to income ratio indicator, the lowest housing affordability level was recorded in Serbia, whereas Latvia has had the highest housing affordability since 2012.

When forecasting the Price to income ratio indicator, the geometric mean forecast model proved to be the best forecasting model for Croatia according to the MAPE criteria. Naïve model IIa was used to forecast the Price to income indicator for Latvia, whereas naïve model II was used to forecast the indicator for Serbia. Forecasts are given in Table 1. The forecasting models used have shown negative trends of the Price to income ratio indicator in Croatia and Latvia, which suggests an increase in housing affordability in the future. On the other hand, naïve model II has showed a positive trend of the Price to income ratio indicator in Serbia. It can, therefore, be expected that housing affordability in Serbia will continue to decrease.

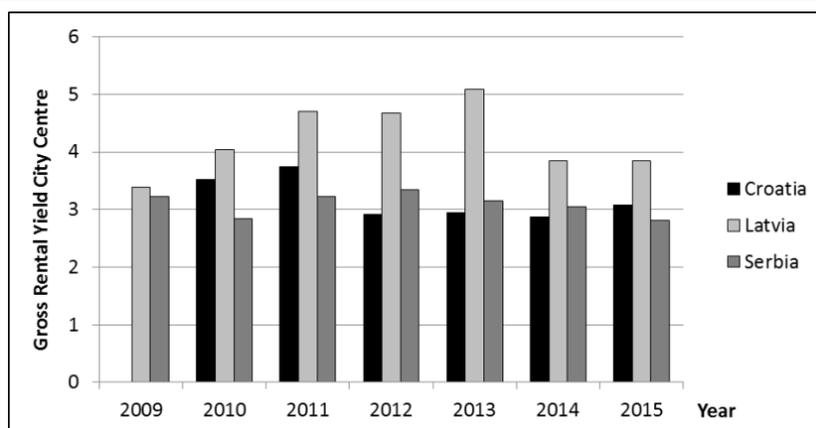


Figure 2: Gross rental yield city centre in Croatia, Latvia and Serbia in the period from 2009 to 2015 (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b)

The indicator called the Gross rental yield city centre is a ratio of average yearly rent per square meter in the city centre and buy price per square meter in the city centre, multiplied by 100. The changes in this indicator reveal whether it is better to continue renting or to buy a house. A decrease in the Gross rental yield city centre indicator signals that a person should stay in a rented house because housing affordability is falling.

Table 2: The Gross rental yield city centre forecasting for Croatia, Latvia and Serbia (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b, Authors' calculations)

Year	Croatia		Latvia		Serbia	
	Actual values	Forecasts*	Actual values	Forecasts**	Actual values	Forecasts***
2009	-----	-----	3.39	-----	3.23	3.23
2010	3.52	3.52	4.04	3.39	2.84	3.16
2011	3.74	3.43	4.70	4.04	3.22	3.08
2012	2.92	3.34	4.67	4.70	3.35	3.01
2013	2.95	3.25	5.09	4.67	3.15	2.94
2014	2.87	3.16	3.84	5.09	3.05	2.88
2015	3.08	3.08	3.85	3.84	2.81	2.81
2016	-----	3.00	-----	3.85	-----	2.75
2017	-----	2.92	-----	3.85	-----	2.68

* Geometric mean forecast model, MAPE=7.17%; ** Naive model I, MAPE=11.97%; *** Geometric mean forecast model, MAPE=5.38%

Figure 2 shows that the highest Gross rental yield city centre indicator was recorded in Latvia in all observed years, which means that the housing affordability level was the highest in Latvia. According to the Gross rental yield city centre indicator, Croatia and Serbia have had quite similar housing affordability levels. The forecasting models used, geometric mean forecast model for Croatia and Serbia, and naïve model I for Latvia, have shown negative Gross rental yield city centre indicator trends in Croatia and in Serbia, whereas it seems that nothing will change in Latvia. Consequently, it can be concluded that housing affordability levels are likely to decrease in Croatia and Serbia, and stay the same in Latvia. The forecasts are given in Table 2.

While the Gross rental yield city centre indicator refers to houses in the city centre, the Gross rental yield outside of city centre refers to houses outside of city centre. Consequently, the Gross rental yield outside of city centre indicator is calculated as a ratio of average yearly rent

per square meter outside of city centre and buy price per square meter outside of city centre, multiplied by 100. The same as Gross rental yield city centre indicator, a low Gross rental yield outside of city centre indicator suggests low housing affordability level.

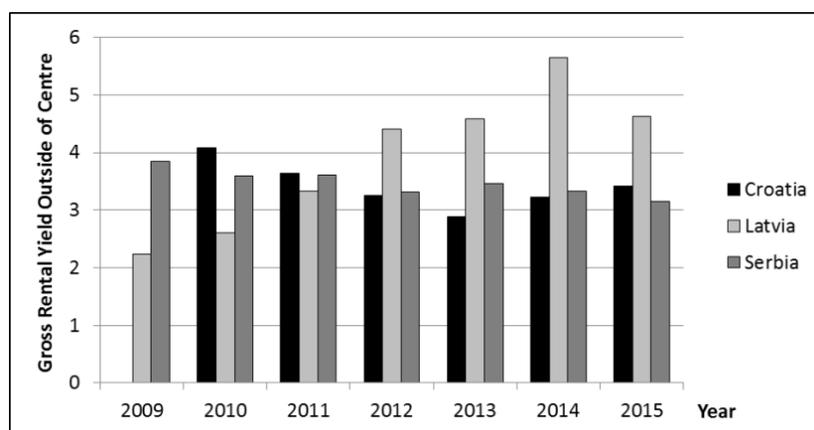


Figure 3: The Gross rental yield outside of city centre in Croatia, Latvia and Serbia in the period from 2009 to 2015 (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b)

Table 3: The Gross rental yield outside of city centre forecasting for Croatia, Latvia and Serbia (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b, Authors' calculations)

Year	Croatia		Latvia		Serbia	
	Actual values	Forecasts*	Actual values	Forecasts**	Actual values	Forecasts***
2009	-----	-----	2.24	2.24	3.84	3.84
2010	4.08	-----	2.61	2.53	3.60	3.72
2011	3.64	-----	3.33	2.85	3.61	3.59
2012	3.25	3.25	4.41	3.22	3.31	3.48
2013	2.88	2.90	4.58	3.63	3.46	3.36
2014	3.23	2.55	5.64	4.10	3.33	3.26
2015	3.42	3.62	4.63	4.63	3.15	3.15
2016	-----	3.62	-----	5.23	-----	3.05
2017	-----	3.83	-----	5.90	-----	2.95

* Naive model IIa, MAPE=6.94%; ** Geometric mean forecast model, MAPE=13.19%; *** Geometric mean forecast model, MAPE=1.95%

Figure 3 shows that the highest Gross rental yield outside of city centre indicator has been recorded in Latvia since 2012, which means that the highest housing affordability level is in Latvia, while Croatia and Serbia have similar housing affordability levels. The forecasting models used, naïve model II for Croatia, and geometric forecast model for Latvia and Serbia, showed positive trends in Croatia and in Latvia, and a negative trend in Serbia. According to the forecasts given in Table 3, the housing affordability level will increase in Croatia and Latvia whereas the housing affordability level will decrease in Serbia.

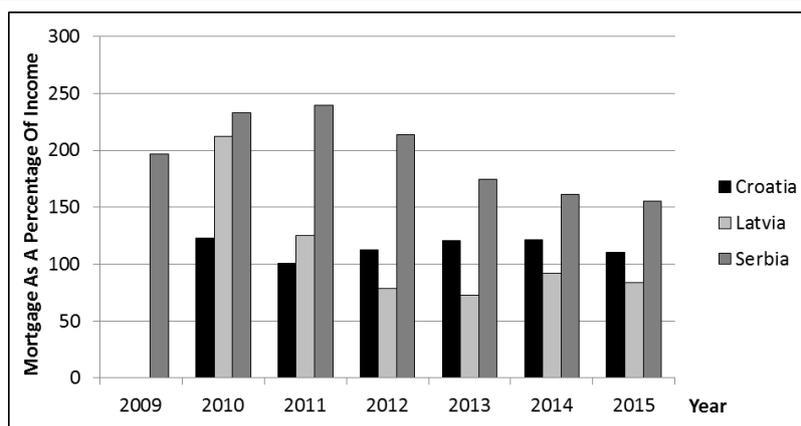


Figure 4: Mortgage as a percentage of income in Croatia, Latvia and Serbia in the period from 2009 to 2015 (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b)

The Mortgage as a percentage of income indicator is defined as a ratio of monthly payment for a 20-year mortgage and median family disposable monthly income which is multiplied by 100. The lower the mortgage as a percentage of income indicator is, the higher housing affordability level will be.

Figure 4 shows that, according to the Mortgage as a percentage of income indicator, Latvia has had the highest housing affordability level since 2012. On the other hand, according to the Mortgage as a percentage of income indicator, Serbia has had the lowest housing affordability level since 2012. Furthermore, the Mortgage as a percentage of income indicator is higher than 100 in Croatia and Serbia in all observed years. This information is very alarming because people in Croatia and Serbia on average have monthly mortgage rates which are higher than their disposable monthly income. Fortunately, the forecasts given in Table 4 show the presence of negative trends in all three observed countries. Thus, according to the Mortgage as a percentage of income indicator, the housing affordability level is expected to rise in all observed countries.

Table 4: The Mortgage as a percentage of income forecasting for Croatia, Latvia and Serbia (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b, Authors' calculations)

Year	Croatia		Latvia		Serbia	
	Actual values	Forecasts*	Actual values	Forecasts**	Actual values	Forecasts***
2009	-----	-----	-----	-----	196.89	196.89
2010	123.04	123.04	212.30	-----	232.86	189.25
2011	101.05	120.31	124.81	-----	239.62	181.91
2012	112.21	117.64	78.92	73.38	213.92	174.86
2013	120.95	115.02	72.72	49.90	174.60	168.08
2014	121.41	112.47	91.93	67.01	160.94	161.56
2015	109.97	109.97	83.51	116.21	155.29	155.29
2016	-----	107.53	-----	75.86	-----	149.27
2017	-----	105.14	-----	68.91	-----	143.48

* Geometric mean forecast model, MAPE=6.03%; ** Naive model IIa, MAPE=26.17%; *** Geometric mean forecast model, MAPE=9.31%

The Affordability index indicator is calculated by dividing 100 by the Mortgage as a percentage of income indicator. The higher the Affordability index indicator, the higher the housing affordability level is.

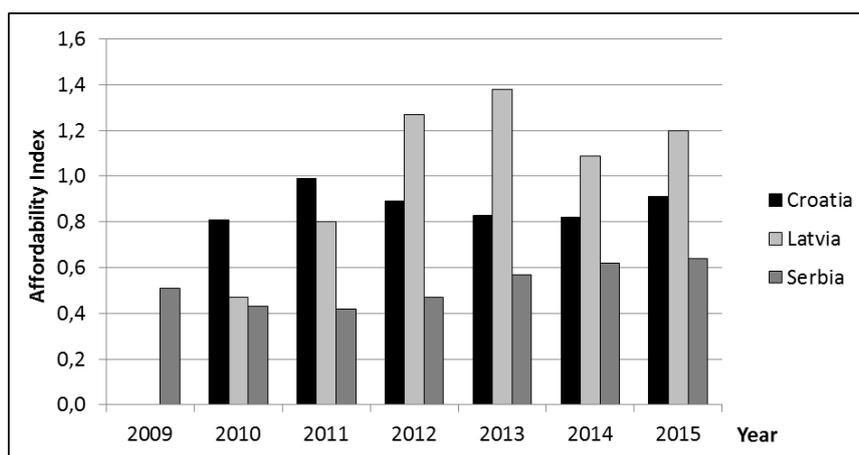


Figure 5: The Affordability index in Croatia, Latvia and Serbia in the period from 2009 to 2015 (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b)

Table 5: The Affordability index forecasting for Croatia, Latvia and Serbia (NUMBEO, 2009, 2010, 2011, 2012, 2013, 2014, 2015b, Authors' calculations)

Year	Croatia		Latvia		Serbia	
	Actual values	Forecasts*	Actual values	Forecasts**	Actual values	Forecasts***
2009	-----	-----	-----	-----	0.51	-----
2010	0.81	0.81	0.47	0.47	0.43	0.51
2011	0.99	0.83	0.80	0.57	0.42	0.43
2012	0.89	0.85	1.27	0.68	0.47	0.42
2013	0.83	0.87	1.38	0.82	0.57	0.47
2014	0.82	0.89	1.09	0.99	0.62	0.57
2015	0.91	0.91	1.20	1.20	0.64	0.62
2016	-----	0.93	-----	1.45	-----	0.64
2017	-----	0.95	-----	1.75	-----	0.64

* Geometric mean forecast model, MAPE=5.66%; ** Geometric mean forecast model, MAPE=20.71%; *** Naive model I, MAPE=10.06%

Figure 5 shows that Latvia has had the highest housing affordability level since 2012, whereas the level is the lowest is in Serbia. The Affordability index indicator is lower than 1 in Croatia and Serbia in all observed years, which means that the disposable monthly income is lower than the mortgage monthly rate in these countries. According to the forecasts given in Table 5, positive trends in the Affordability index indicators in Croatia and Latvia suggest that housing affordability levels might increase. On the other hand, there is no such trend in Serbia and no change in housing affordability level is therefore expected considering the Affordability index indicator.

Table 6: Housing affordability level trends for Croatia, Latvia and Serbia (Authors' calculations)

Indicator	Country		
	Croatia	Latvia	Serbia
Price To Income Ratio	+	+	-
Gross Rental Yield City Centre	-	=	-
Gross Rental Yield Outside of Centre	+	+	-
Mortgage As A Percentage Of Income	+	+	+
Affordability Index	+	+	=

Table 6 presents housing affordability level directions of change for Croatia, Latvia and Serbia for all five indicators of housing affordability. The results show that the housing affordability level, in general, is going to rise in Croatia. However, the results for Croatia show that it would be better to rent a house in the city centre than to buy one. It is highly probable that the housing affordability level in Latvia is going to increase in the next years. In contrast, the housing affordability level in Serbia is most likely to decrease furthermore in the years to come.

4. CONCLUSION

Since housing affordability seems to be one of the key measures of a country's socioeconomic stability, this research was carried out primarily to identify useful forecasting methods and apply selected housing affordability indicators. Namely, in this research, we observed housing affordability as a measure of population's ability to afford or to purchase a home indexed to the population's income. Overall, five indicators of housing affordability were investigated. In order to determine the short-term future trends in these indicators, six forecasting models were applied. The best forecasting model for each indicator and for each of the three selected countries was chosen according to the MAPE criterion. The results of our analysis may be summarised as follows: the housing affordability level is going to increase in Latvia, in Croatia there is a possibility that housing affordability will increase, whereas in Serbia housing affordability will most likely decrease in the forecasted period.

The main limitations of the paper are the shortness of the observed period and the fact that macroeconomic variables were not included in the analysis. Further research should, therefore, observe housing affordability in a longer period of at least 20 years. Moreover, macroeconomic variables such as total population, average net income and inflation, should also be taken into account as this might provide a better and more detailed insight into housing affordability levels and trend in the observed countries.

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THE BRICS NATIONS AND THEIR PRIORITIES

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ABSTRACT

The so-called “BRICS nations” have recently proven to be the most fascinating group of worldwide economies that collaborate with each other. The name is an acronym for an association comprising Brazil, Russia, India, China, and South Africa. The BRICS members are all developing or newly industrialised countries, they are however distinguished by their large, rapidly growing economies and their significant impact on regional and global affairs. Before the inclusion of South Africa, the organisation was known as BRIC. On 13 April 2011, when South Africa joined the group, BRIC gained the letter “S”. The name “BRIC” itself was used for the first time by Jim O’Neill, a British economist of Goldman Sachs. Published in November 2001 and then widespread, O’Neill’s forecast predicted that by the half of the 21st century those countries would have become world powers. As of 2014, the BRICS countries represent almost 3 billion people – approximately 40% of the entire world population. The five nations have a combined nominal GDP of US\$ 16.039 trillion, equivalent to approximately 20% of the gross world product, and an estimated US\$ 4 trillion in combined foreign reserves. Since 2010, the representatives of the BRICS government have been meeting annually at formal summits. The nations within this group do not form a political alliance or an official trade association. The priorities of the members are as follows:

- 1. Development of a new currency system*
- 2. Reforming the United Nations*
- 3. Increasing the role of developing countries in the international monetary institutions.*

Having regard to the emerging political and economic changes on a global scale, the BRICS nations have been undertaking new ventures and initiatives aimed to make them key players on the international arena. Today, it is really captivating to see to what extent those intentions are real and exercisable.

Keywords: *BRICS, forecast, members, world power*

1. INTRODUCTION

Coming into being of the BRICS nations organisation should be considered a world phenomenon of a political and economic nature. The so-called “BRICS nations” have recently proven to be the most fascinating group of five worldwide economies collaborating with each other. The name is an acronym for an association that comprises Brazil, Russia, India, China, and South Africa. The BRICS members are all developing or newly industrialised countries, they are however distinguished by their large, rapidly growing economies and their significant impact on regional and global affairs. At this stage, BRICS is to be perceived as an elite club, in the statute of which one may find innovative elements, revolutionary even, in regard to the message they are conveying. The method of implementing those ideas has already been meticulously planned: it is first to reform the global governance within the members of the “Five”, and then to take the reforms further – to all the corners and countries of the world. At the moment, the BRICS countries comprise five structures, all quite unlike the rest. At first glance, they do not seem to have anything in common: different is the civilizational development, different is the material culture, different is the way of thinking. A most turbulent history, settlement patterns, and utterly different languages set them apart.

However, the truth is that these countries do share some common features: they all are the dominant economic superpower of their region, they all had been ruled by charismatic rulers and they all have direct access to at least one ocean. They hold a strategic geopolitical position, they have gathered the military forces of all formations and they are currently exerting the biggest impact on the international arena. Most of them also occupy a large enough area. The key element though is something else, and that is common interests. Some analysts believe that the BRICS countries also share a common enemy (Skowronek T., 2011) and that an existing, discernible animosity towards him effectively consolidates their activities.

2. ORIGINS OF THE BRICS

The year 2006 is regarded as the date of establishing the BRICS nations organisation. It was then, when the representatives of the first four founding countries, known back then as BRIC, met at the foreign ministry level during the General Assembly of the United Nations in New York. This was not, however, the sole and only attempt at creating an organisation that would associate the most economically active developing countries. Much earlier, already in the year 1961, Malaysia, Thailand and the Philippines had formed the Association of South-East Asia. This project failed miserably though. It was ASEAN that emerged from the rubble left behind by the aforementioned organisation. ASEAN currently consists of the Philippines, Laos, Malaysia, Indonesia, Singapore, Thailand, Brunei, Vietnam, Burma, and Cambodia. Based on this organisation, an ASEAN Regional Forum (ARF) initiative has been created (it is not an institution however). It focuses on establishing mutual trust and on settling disputes amicably. In addition to the original ASEAN founding countries, ARF brings together Australia, China, India, Russia, Bangladesh, Japan, Canada, Singapore, North Korea, Republic of South Korea, Mongolia, New Zealand, Pakistan, Papua New Guinea, East Timor, United States of America and, as an integral whole, the European Union. ASEAN Regional Forum is a place of dialogue between, on the one hand, the countries of Southeast Asia, South Asia and East Asia, and on the other, the most developed countries in the world; it exists for discussing the sensitive regional issues. Another attempt intended to ease and stimulate mutual relations on the trade and economic front between the developing countries was undertaken with the creation of APEC. APEC is a loose integration association that deals with international economic collaboration of the Asian countries as well as countries situated on the coast of the Pacific Ocean. It was founded in the year 1989 in Canberra as a result of an informal meeting between six ASEAN members. The countries that have joined APEC are: Australia, Canada, New Zealand, Japan, South Korea and USA. APEC is not an international organisation *per se*; the collaboration within it involves mainly political declarations, thus the participation in it concerns only the state economies. Because of the fact that the membership of China in APEC and of India in ASEAN has more likely than not disappointed the governments of those countries, IBSA group has been formed in order to yield tangible results. IBSA is intended to form a strategic alliance, an alliance that would promote and strengthen the tripartite collaboration of developing countries, and through which the members could voice their opinions on the international arena. Apart from IBSA, there is also a group called Outreach-5. Outreach-5 comprises all the members of IBSA plus China and Mexico. The creation of Outreach-5 reveals the organisational effort of members of the G7 group, an effort put into deepening the political and economic relations between the most dynamically developing countries on the one side, and countries whose economies are not yet comparable to the economies of developed Western countries on the other. Worth mentioning is also the collaboration of developing countries that started in 2005 and whose members are: Bangladesh, Egypt, Indonesia, Iran, South Korea, Mexico, Nigeria, Pakistan, the Philippines,

Turkey, and Vietnam. Although it has a less meaningful impact than the aforementioned structures, one should take into account a potential future growth of those countries. Together they form the “Next Eleven” group (N-11) that influences no less than 4 continents. MIKTA and CIVETS carry even less weight in the international arena. Out of the two, only MIKTA is the name of a functioning organisation, while CIVETS is merely an abstract term, used to describe a group of countries in a more precise way. Lastly, one must also mention the Eurasian Economic Community, established in October 2000. Its members are: Belarus, Kazakhstan, Kyrgyzstan, Tajikistan, and Russia. Armenia, Moldova, and Ukraine were only observing the situation. In October 2014, an agreement on the termination of the Eurasian Economic Community was signed by the leaders of the member states in connection with the launch of the Eurasian Economic Union. The founding treaty provides for the free movement of capital, labour, goods, and services between the countries of the Eurasian Economic Union. It is not difficult to notice that this organisation is based on the European Union, as it has a similar structure and shares similar goals. It has been designed and created for the states originating from the Eastern Bloc as a competition and an alternative for the European Union as well as other such organisations. The Eurasian Economic Union is open to new members that are willing to collaborate closely with the member states of this organisation. What is also important is that its pre-accession requirements are not set as high as those of the European Union. However, all the most important political and economic organisations, such as APEC, ASEAN, or Group of Seven + Five have a huge drawback that sets them back in their aspirations. The drawback is that the most economically developed countries participate, on various bases, in the works, meetings, and discussions of those organisations, creating an awkward situation, where the “rich” control the “less wealthy”. The presence of the United States in all those three leading organisations must be especially disturbing for them. It is only IBSA that could enjoy a higher level of autonomy, operating, to a certain extent, outside of G7. Attempts undertaken by the West to control the Russian and Chinese economies had to result in a communication between the aforementioned countries and the state members of IBSA. It was indeed the sole and only viable solution for them. The four countries that constitute BRIC (Brazil, Russia, India, China) decided to join forces and create a common political and economic bloc just when the global hegemony of the United States begun to fail and falter. The factors that have contributed to such an outcome are: the lack of a clear success in the conflicts in Afghanistan and in Iraq (Romanek B., 2014), and before that, a strategic fiasco of the American troops in Somalia and a highly controversial NATO-led operation in Yugoslavia (Waldenberg M., 2003, pp. 373-379). Those happenings seem to have convinced the heads of state of the “rising countries” that America has no longer the power nor the means necessary to single-handedly solve great antagonisms on a world scale. This sound of a wake-up call was heard loud and clear, a call telling it was high time those countries took the matters into their own hands.

Political dialogue within the BRIC format began in New York City in September 2006, when the BRIC foreign ministers conferred during the 61st UN General Assembly. In 2010, South Africa undertook efforts to join the BRIC grouping and the process for its formal admission began in August of the same year (Smith J. A., 2011). South Africa officially became a member nation on 24 December 2010 after being formally invited by the BRIC countries to join the group. The group has been then renamed as BRICS – with the “S” standing for South Africa – to reflect the group’s expanded membership (Blanchard B., Zhou X., 2011) In April 2011, the President of South Africa, Jacob Zuma, attended the 3rd BRICS summit in Sanya, China, as a full member (Xuequan M., 2010). In this way the BRICS organisation has reached its contemporary size and acquired its contemporary structure.

3. MAIN GOALS

The grouping has been holding annual summits since 2009, with member countries taking turns to host. The first and second BRIC summits, comprising of only four members, were held in 2009 (Yekaterinburg, Russia) and 2010 (Brasilia, Brasil). The first five-member BRICS summit was held in 2011 (Sanya, China). The fourth meeting took place in 2012 in New Delhi, India, while the fifth meeting was held in 2013 in Durban, South Africa. The most recent BRICS summit took place in Fortaleza, Brazil, from 14 to 16 July 2014 (Patel K., 2012). The next meeting, seventh in total, of all the five member nations is going to be held in 2015 in the city of Ufa with a population of over one million, located to the north of the border with Kazakhstan in the European part of Russia. This metropolis is the capital of Bashkiria, an autonomous republic, which is a part of the Russian Federation. The annual meetings of the BRICS countries are of extreme importance. During these meetings, determined are the projects, which are then implemented. The first five meetings specified a number of basic objectives, outlined the plans, and identified the main mission of the organisation. Its aims and objectives can be divided respectively into several groups according to the accepted criteria.

Group I

The group has been selected by the **criterion of “creating a new world order.”** The BRICS intentions that are expected to be implemented can be formulated in the following points (Cimek G., 2013, p. 69):

- World based on the existence of at least three leading countries, as a tool preventing the domination of one superpower.
- Dialogue between civilizations instead of the clash of interests.
- Creation of a new, multipolar and democratic governance at the international level, where decisions are made collectively by all states.
- Changing the current approach to the problem of the sovereignty of states and laying out the new, fair boundaries.
- Support for the governments and the people in charge of the Third World countries, expressed on the international political scene.
- Striving to create a full-fledged, coordinated global governance.

Group II

Determined by the **criterion of “changes in the operation of international organizations.”**

This group consists of the following points :

- Recognition of the increasingly important role of G-20 countries and the announcement of the increase of BRICS contribution to the work of this group.
- Comprehensive reform of the ineffective and inefficient United Nations.
- Enlarging the BRICS group in the coming years.
- Adding to the UN Security Council two or even three new permanent members, such as Brazil, India, and possibly also South Africa.
- Use of international law in accordance with the Charter of the United Nations as a means of resolving any and all conflicts between states.

Group III

Criterion: “socio-economic issues”. The most important points are as follows (Steward S., 2015):

- Ensuring the food safety of the entire world population

- Development of the middle class through imposing social responsibility of private corporations
- Carrying out investment projects by BRICS members in the developing countries in dire need
- Ensuring an adequate level of supply of energy and its sources
- Capitalism based on the development of the real economy and, in particular, of the industry, technology and services instead of financial capitalism
- Collaboration and coordination of BRICS activities, aimed at other developing countries in order to build a “harmonious world”
- Idea of the sustainable development of societies and countries, based on a holistic and ecological worldview rather than mechanical, neoliberal principles of profit maximisation of the private investors
- Ensuring that the relevant aid and development assistance will be provided to the poorest countries and societies

Group IV

Criterion: “financial issues”. Key points:

- Creation of a new monetary system based on the principle of multipolarity.
- Resignation from the US dollar as a global currency.
- Reforming the global banking system.
- Limiting the role of the International Monetary Fund.
- Increasing the role and importance of developing countries in the international financial institutions.

Group V

Criterion: “environmental issues”. The main points are as follows:

- Preventing the climate change.
- Preventing the devastation of the natural environment.
- Development of environmentally friendly technologies.
- Protection of still existing natural resources.

The results of the first five meetings of the Group can be generally described as wishful thinking. What had proven to be the major turning point for BRICS was a meeting in 2014 in Brazil. Between 14 and 16 July, in the city of Fortaleza that borders the Atlantic Ocean, two extremely important economic and financial projects were concretised, namely two agreements on the establishment of a joint bank for the group and on the establishment of its own fund of reserves. The document on the establishment of the New Development Bank, because such a name was adopted for the newly-created institution, was signed in the form of a resolution by the ministers of finance in the presence of the presidents. It took nearly three years to prepare this event. Established were the details of the operation of NDB: the initial capital of the bank was set at \$50 billion, with each of the five countries making a commitment to transfer the sum of \$10 billion to the shared fund. Ultimately, by the year 2021, the NDB capital is expected to have been raised to \$100 billion. The BRICS New Development Bank was set up to challenge the two major Western-led giants – the World Bank and the International Monetary Fund. NDB’s key role will be to serve as a pool of currency for infrastructure projects within a group of five countries with rapidly growing national economies – Russia, Brazil, India, China, and South Africa. New Development Bank was established for BRICS and United Nations countries alike. However, shares of the BRICS countries in the capital of the bank may not fall below 55 percent. In the initial phase of the

Bank's existence, an accounting currency will be US dollars (USD), and it's only in the year 2017 that they are planned to be replaced by the Chinese Yuan. The New Development Bank is expected to be fully operational by the end of the year 2015, with the headquarters slated for opening in Shanghai. The chairmanship, with a term of five years, will rotate among the members (Whitaker P., 2015). The Bank will be managed jointly. The Board of Governors will have the supreme authority, while the chief executive power will be vested with the Board of Directors. It was agreed that the Representative of India would be designated as the first President.

The second resolution of the summit in Fortaleza refers to the establishment of the common Reserve Monetary Fund (Contingent Reserve Arrangement – CRA). The main reason for the creation of this body were bad financial decisions made in the past by the US Federal Reserve and the European Central Bank authorities. In order to support the currency of countries that struggle due to a difficult financial situation, the creation of an own additional pool of reserve currencies was decided upon, with the funds being non-transferable, but a certain amount will be kept in the accounts of central banks. The Contingent Reserve Arrangement is to be funded with pooled reserves of \$100 billion. However, the share of each country in the Fund will not be even.

China will have the biggest share, amounting and equivalent to \$41 billion, while Brazil, India and Russia will contribute \$18 billion each. South Africa, which economically speaking is by far the weakest partner, is expected to pay \$5 billion. The CRA, pooling in foreign exchange reserves, is of utmost significance to South Africa, which will contribute only \$5 billion in guarantees, but, should the need arise, will have access to \$10 billion – a sum doubling its contribution (Steyn L., 2014).

Other important provisions that concern the evolution and improvement of BRICS and are attributable to the meeting in Brazil can be reviewed in but a few points. The main goals of BRICS in the nearest future are (Szafarz S., 2015):

- Creation of an own statistical office that will be responsible for publishing all official data concerning the entire grouping.
- Establishment of its own rating agency.
- Creation of a joint research centre (the so-called “think-tank”).
- Creation of an economic council and the board of advisors of the BRICS countries.
- Supporting online trading (the so-called “e-commerce”).
- Enhancement of collaboration with other countries on all continents, especially with South America and Africa.
- Conducting “cultural diplomacy” based on spreading knowledge about the achievements in arts as well as the cultural and historical heritage of the “BRICS Five” to the whole world.
- Development of a mutually coherent social policy, particularly in terms of employment and creating new jobs.
- Coordination of the most vital decisions in common foreign policy.

When analysing the outcome of the 6th BRICS meeting in Fortaleza, one can conclude that the opinions anticipating the imminent “burnout” of the organization's core turned out to be completely wrong and exaggerated. Governments of these five countries showed at this stage of cooperation not only their determination, maturity, care, and responsibility for the future of their nations, but also a huge concern for the future of the entire world. It can be said, and it

can be said with full conviction that a giant leap has been made in 2014 in Brazil towards the construction of a new world order.

4. POLITICAL AND ECONOMIC POTENTIAL OF THE GROUP

BRICS nations constitute a group in many respects varied. For instance, according to data gathered in 2012, China surpassed Brazil over five times in terms of GDP growth rate. As regards GDP per capita, India recorded a nearly four times and a half lower rate than Russia. The population of South Africa equals only slightly more than 25% of Brazil's, 4% of India's, and only 3,6% of China's. A brief overview of the basic data is presented in Table 1.

Table 1: BRICS 2012 overview (Dmochowska H., Witkowski J., GUS 2014)

	BRAZIL	RUSSIA	INDIA	CHINA	SOUTH AFRICA
GDP <i>growth rate</i>	1.5%	3.7%	5.8%	7.8%	2.5%
GDP <i>USD (billions)</i>	2,296	1,951	1,842	8,144	366
GDP per Capita <i>USD</i>	12,160	17,604	3,978	9,451	11,859
POPULATIONS <i>persons (millions)</i>	195	143	1,220	1,329	49
LAND <i>km²</i>	8,511,965	17,098,242	3,287,263	9,595,960	1,219,912

An analysis of the separate data points to China as the unquestionable leader of the group, followed by Russia in terms of economic results. Those powers enjoy a strong position not only in the group, but also on the global arena. Both belong to G20, which officially unites world's wealthiest countries. Only recently Russia ceased to engage in the discussions of G8, an important political and economic forum giving the most developed states the opportunity to meet in their closed circle. After the annexation of Crimea on 24 March 2014, other members of the group (the UK, France, Germany, Italy, Japan, Canada, and the USA) decided to suspend the participation of Russia in the meetings (Acosta J., 2014). Thus, G8 was transformed into G7. China and Russia are important players on the international arena beyond a shadow of doubt, but only the combined potential of the whole "Five" gives an idea of their status in the world. Moreover, the situation is improving with each year. As of 2014, the BRICS nations represent almost 3 billion people, accounting for approximately 40% of the world population. The five nations have a combined nominal GDP of USD 16.039 trillion, equivalent to approximately 20% of the gross world product, and an estimated USD 4 trillion in combined foreign reserves. A lion share of the reserves was allocated to developed countries as material or capital investments and yielded substantial profit. Another part of the foreign reserves was used in the developing countries which either are BRICS neighbouring states or have a strategic importance for the group. A flagship investment of this type is the so-called "Nicaragua canal" intended to link the Atlantic and Pacific oceans. An estimated cost of the massive construction amounts to over USD 40 billion. As for the canal itself, it is known to be planned as a waterway 278 km long, 260-520 m wide and, on average, almost 28 m deep. A railway and an oil pipeline will run along the canal and two huge ports will be built on its ends. The Chinese offered to perform the works and cover the costs. Contrary to what one might expect, it is a very profitable undertaking for China, as the contract guarantees it an exclusive right to exploit the canal for 50 years (a privilege which may subsequently be

extended by the next half a century) and full exemption from taxes. According to the information available to the general public, Nicaragua will receive only a small share of the profit: 10% after the first ten years with annual increases by less than 1% thereafter (Staniul M., 2014). The canal is a huge opportunity for the poverty-stricken Nicaragua. Obviously, it is also a great success of China and indirectly of the whole BRICS, considering that the canal manager and its allies gain independence from the Panama Canal and secure a foothold for their own activity in Central America. The construction will create an important post for controlling one of the zones of the highest strategic importance on the Earth as well as for spreading beliefs and ideas. Therefore, permanent presence in the region, investments on a large scale, and dissemination of social and cultural standards will become efficient and effective tools for political and economic expansion of China and its allied BRICS nations. The aforementioned investment and similar initiatives will become an attractive alternative for capital undertakings in the developing countries of Asia, Africa and South America. In such cases, the greatest benefit consists in gaining financing from sources outside America and Western Europe.

5. CONCLUSION

Apparently, the BRICS nations enter a period of particularly good times, as indicated by a body of facts. All of the states in question, possibly with the exception of Russia, have proved immune to the economic crisis. Their economies maintain a sustainable and dynamic growth. Each of the countries separately is a prominent regional military power, strong and resolved enough to support its ambitions by military presence or intervention in the event of any infringement upon its outlined sphere of interest. China, Russia, and India are sovereign nuclear-weapon states. Supposedly, also South Africa possesses nuclear weapons from late 1970s (Pławski K., 2011). Brazil did conduct its own nuclear-weapon programme in 1975-1988, although its final results remain unknown. Human capital of the BRICS nations comprises massive resources including tens of millions of students, scientists, and specialists in all imaginable areas of expertise. Moreover, the BRICS nations hold a significant part of world's most precious natural resources, including oil, natural gas, uranium, gold, and diamonds.

South Africa's accession revealed that the group may also be joined by other countries in the future. There is no shortage of prospective members: main candidates include Turkey, Mexico, South Korea, and Indonesia. Indonesian authorities have even declared their willingness to participate in BRICS summits as a full member. This indicates that the countries aiming to join the group perceive the participation as an opportunity to boost their position on the international arena and benefit from mutual cooperation (Skowronek T., 2011).

Rumour has it that Germany has initiated secret negotiations on accession to BRICS (Hunter G., 2014). If this is true, the consequences for the existing global balance of power will be far-reaching. Keeping in mind the close ties of politicians from the Federal Republic of Germany with Russian and Chinese officials, it is not an impossible scenario. Other prospective candidates for BRICS members comprise: Japan, Argentina, Iran, Egypt, and Nigeria. Most recently, Bangladesh have expressed an interest in joining this organisation. In the light of the existing international situation, one should not disregard the candidacies of Kazakhstan, Cuba, Nicaragua, Venezuela, and Vietnam, either.

The diversity of objectives set by BRICS, and particularly their considerable number, indicate that the achievement of goals is a multi-year project, necessitating the involvement of many people, the development of administration, and the accession of new members. The political and economic international structure of BRICS dismantles the existing system, demonstrating

its anachronistic nature and serious, conspicuous faults. The group overturns the present geopolitical balance entirely and sets a new direction for the growth of international trade and economy by offering to replace the existing solutions with a new global order friendlier and fairer for economically weaker countries. The programme has already presented an enticing and attractive development alternative for the countries outside G7. Therefore, the developing countries look towards the meeting in the capital of Bashkiria with hope and profound interest. The forthcoming summit in Ufa will show whether the group has not lost its radical approach and still makes its decisions with a flourish.

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CHANGE MANAGEMENT DURING ERP IMPLEMENTATION

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ABSTRACT

For many companies around the world ERP implementation becomes the most significant process of creating highly-integrated, multifunctional and competitive business model. At this point a lot of work should be done in managing all the changes within the company to succeed. This management process called “change management” in most cases signals that the company is ready for changes and becomes the main key success factor in ERP implementation.

This paper discusses the most important factors of change management that effect on the whole company’s business-processes. The research design represented here is qualitative because it attempts to describe the meaning and importance of using the key success factors of change management while implementing the ERP system.

Combinative usage of these factors may be highly-effective for the companies that implement ERP systems or change their business-processes.

The originality of this work lies in studying multiple aspects of ERP implementation techniques and statistics dedicated to the selected theme.

Keywords: *change management, ERP implementation*

1. INTRODUCTION

Despite of generally positive trend of ERP implementation practice in the world, there are still severe chance of neutral or negative results (Figure 1).

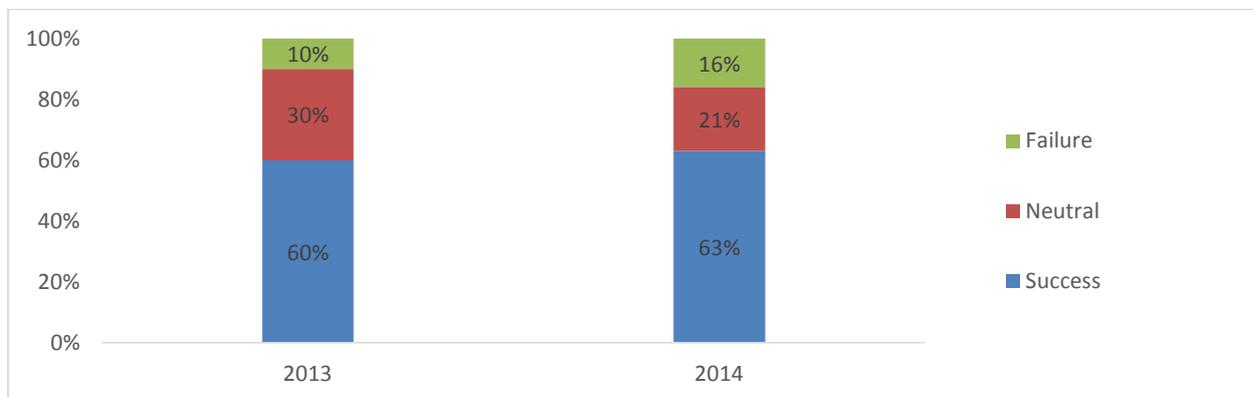


Figure 1. ERP implementation processes results in 2013 period in percent (Panorama-consulting 2013-2014 ERP Report)

Set of measures which is referred to the implementing in company business-process changes is to be initiated after the factor analysis of possibility of change management and, what is more significant, success probability of intended change realization analysis. Major role of this process is played by highest possible positive result forecasting on the initiation stage and by uncovering of change suitability.

The process of analysis of change implementation system is represented by 14 key factors, which determine the effect on result of creating highly integrated accounting system.

2. KEY FACTORS OF CHANGE MANAGEMENT DURING ERP IMPLEMENTATION

Top management support

- Administrative advantage
- Practical assistance in business-processes creation

It is top company management who sets the direction of further development of managerial accounting system and monitoring of all company processes; it also gives instructions on what final result the project team and corporate employees should reach. The top management should be highly informed about info system functioning arrangement and build up and interact with principal work group which should consist of ERP and key business-processes specialists. An interaction concept should be determined at the very beginning of the process implementing; top management process functions are to be defined clearly and used effectively.

Business process analysis

- Determines parameters of business-processes flexibility
- Allows to estimate business-processes ability to react on emerging fluctuations within and out of the company

This factor has a direct effect on ability of new business-processes creation and change of existing processes in dependence on needed levels of manageability parameters.

It is necessary to develop effective, competitive and not too complex concept of ERP implementation project management and make sure at the pioneering stage that business-processes are prepared for coming changes. These activities are fundamental basis for future accounting system transformation by the ERP system settings and by business-processes changes which both guarantee the synergetic effect of the whole set of measures. The ability to execute changes in business-processes that affect the whole business model manageability is set exactly at this stage.

Project management competence

- Defines project team's degree of knowing the product
- Sets vendor's independence level while ERP implementing

ERP is directly relevant to vendor's software. Project leader should pay much attention to technical features of ERP implementing and stand fully assured of specialists and experts under his subordination. The importance of this task is due to several factors among which are ERP system selection depending on company needs, necessity estimation and external consultant recruitment, selection, purchase and installation of hardware (both server and information acquisition of selected business-processes), user education and support service, testing and troubleshooting. This process is of prime importance due to the fact it is the first material step to company's business-processes change model and it determines these changes.

Project leader

- Creates business-processes architecture
- Creates ERP implementation scenario

Project leader, which knows ERP perfectly, is able to professionally force top management to change business-processes in accordance with ERP implementation needs. This factor is

needed to prevent top management from making decisions without coordination with project team.

Project leader is not necessarily has to be its executive. The roles of executives could be delegated to field professionals in specific modules of ERP. This practice allows to maximally stabilize consequences of changes made in key business-processes and increase effectiveness of key ERP modules implementation.

End users implication

- Allows optimizing implementation process
- Determines “soft” or “hard” implementation scenario

This factor determines how the personnel will react to business-processes changes and how hard the ERP implementation process will affect them. End users implication at the stage of ERP implementation process is also used for collecting as many professional opinions about final results of business-processes changes from company specialists responsible for these processes as possible.

The other important aspect of end user implication is opposition management. The crucial factor which motivates most of the personnel to oppose changes is their previous working experience without such complex business-model that ERP provides.

Solving this problem includes special set of measures which consists of: possibility of strategic plan change to provide staff with opportunity to create their own alternative local scenarios of business-processes changes; end user implication with the purpose of systematical preparation to the future business-processes changes and avoidance of shock perception of instant start of ERP usage (“hard” scenario); creating project leader and co-leaders as an efficiency increasing tool.

User training and support service

- Determines the beginning of personnel training
- Determines training necessity

The factor, which determines the model of business-processes system updating: simultaneous ERP implementing with user pre-training or gradual user training along with different ERP modules implementing.

External consultant involvement

- Allows determining the resources while ERP implementing
- Assigns the liability for intended change results

External consultant involvement is used for analysis of business-processes and vendor effectiveness at risk identification while ERP implementing. An alternative to external consultant involvement is formation of internal team which is responsible for realization of these processes.

Ability to change strategic plan

- Determines company’s ability to fit possible changes
- Allows to measure company’s readiness for intended changes

This factor effects on business-model’s possibility to differ the ideal model of development of the company which is defined at the stage of project creation. It may be crucial if significant

changes are to be made to the company and most of business-processes are completely redeveloped or created instead of previous.

ERP system selection

- Determines the capital expenses on ERP implementing
- Allows regulating the coverage range of business-processes changes and implicated users

ERP system selection influences on the project total invest funds and the correlation between system functionality and business-processes (existing and planned) changes.

Highly defined goals and adequate business-plan

- Allows to precisely estimating final result of executed changes
- Allows estimating operational expenses on executing business-processes changes

This factor is representing level of stability and efficiency of managerial decisions made both by top management and project leader and expressed in budget deviations.

Possibility to change organizational framework and IT structure

- Allows spreading roles within the company at the stage of ERP implementation
- Indicates the ability to perform radical changes in business-processes within the company

This factor characterizes company's ability to change fundamental business-processes and key structures (organizational framework and IT structure) in the needs of ERP implementation.

Communications

- Determine the success rate of interaction of business-processes changes system execution
- Assist the simplification of information exchange between departments

Communications provide company with full information and documentation exchange between all centers responsible for business-processes changes and ERP implementing.

Collaborative engagement between company personnel and project team

- Determines final architecture of business-processes
- Provides maximal efficiency of ERP usage

This factor also determines the number of staff put off the key business-processes in the company to assist project team in the process of ERP implementation.

Testing and troubleshooting

- Provides quality of ERP implementation and meeting of deadlines
- Provides technical support

Determines company's readiness to make full tests without stopping production process, provides minimal-to-zero chance of ERP system failure at launch.

3.CONCLUSION

Discovering and analysis of key factors will allow creating systematic approach to realization of changes within a company and will assist in spreading responsibility of changes execution between program contributors.

Each factor represented in this article is a powerful tool of prediction, realization and monitoring of changes within the company. Appropriate and combined usage of these factors is the main key success factor of ERP implementation process.

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ADDRESSING RESPONSIBILITY OF OWNERS AND MANAGERS IN CARTEL AGREEMENTS: A COMPETITION LAW PERSPECTIVE

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ABSTRACT

Horizontal agreements between competitors with object/effect of reducing competition between them through market partitioning, bid rigging, production/distribution quantities limitation and price fixing are considered to be the infringements of competition law. Cartel is an agreement under which competitors agree not to compete with each other and presents the most serious form of anticompetitive behaviour. Such arrangements allow companies to exert market power they would not otherwise have by artificially restrict competition with deleterious effect on welfare. Competition authorities around the world continue to declare cartel detection and conviction in competition enforcement as their highest priority. Taking part in cartel can have severe consequences for managers as well for the undertaking. In some jurisdictions employees involved in the infringement of competition law are criminally prosecuted facing financial fines and possible imprisonment. The reason behind it is an acknowledgment by competition authorities that the mere threat of sanctions against managers and personal liability could be a more effective deterrent than the possibility of only undertaking-focused sanctions. The amount of fines imposed for antitrust infringements, and for hard core cartel violations in particular, has notably augmented over the last years. This paper will argue why managers are employed in harmful activities risking imposition of severe fines and adverse reputational impact for themselves and the owners of the undertakings they work for and what are the tools within undertaking that can reduce the risk of being involved in unlawful antitrust practices and minimize the negative impact if anticompetitive behaviour has occurred.

Keywords: *cartel, competition law, sanctions, managers, owners*

1. INTRODUCTION

There has been a significant change in policy towards cartels in Europe since 1990s with growing international recognition that hard-core cartel activity consisting of market sharing, price fixing, limits on production and bid rigging has negative welfare economic effects and requires strict laws prohibiting it associated with efficacious penalties to deter it. Conduct that an illegal cartel orchestrates to suppress competition might be reasonably suspected of having an anticompetitive rationale. (Heeb, Kovacic, Marshall, Marx, 2009, p. 216) Within various jurisdictions, among scholars and competition enforcers there are concerns that fines imposed just on undertaking do not deter illegal conduct by individuals, managers that are actually running the companies. This has led to more support for the view that criminal sanctions should be imposed on individuals engaged in, or responsible for, the anticompetitive conduct. Almost every discovered cartel was operated by executives whose incentives may not be fully aligned with those of owners. Synchronization of individual goals with the interests of organization is the biggest challenge (Cingula, Cingula, Vuletić, 2012, p. 196). Even though participating in cartel may benefit executives and shareholders during their period in operation, once discovered and fined, the repercussions of such behaviour can result in severe fines and reputational losses on the part of the undertaking and its management. The relationship between managers and owners is a bone of contention in recent competition law developments related to optimal liability for illegal activities and corporate crime.

2. RESTRICTION OF COMPETITION THROUGH CARTELS

Generally speaking, strategy of an undertaking is dependent on the strategies followed by its competitors. Investments in R&D and innovations could bring positive changes in undertaking's performance on market and create new value for customers. Successful innovation and the ability of undertakings to continuously improve their innovation processes are rapidly becoming essential requirements for competitive advantage and long-term growth. However, by entering into an agreement with competitors to co-ordinate behaviour with the aim of reducing the effectiveness of competition between them, each undertaking will be able to increase price above the level that would have otherwise prevailed and consequently to increase profits (Bishop, Walker, 2002, p. 139). The objective of a cartel is to maintain the parties' respective positions on the market and to achieve pricing stability or an increase in prices (Jones, Suftrin, 2008, p. 859). Such activities result in higher prices, less innovation, allocative inefficiency and reduced choice for consumers.

Duration of the discovered cartels vary significantly, but one study found that cartels last on average about five years (Levenstein, Suslow, 2006, p. 85)

Bid rigging stifles competition and occurs when competing undertakings collude on the bids to submit in tenders instead of vigorously competing with each other and is without exception considered one of the most serious infringements of competition law. Bid-rigging is a serious hard-core infringement that eliminates competition among suppliers in procurement process and increases costs for those organizing tenders. Since this occurs prevalently in public procurement, these augmented costs are conclusively passed on to the taxpayers/consumers. Size of public procurement market varies across the states but in 2011 OECD member states spend on average 12% of their GDP on public procurement. In Croatia, there has been an increase in the relevance of procurement market and in 2011 accounted for 9,011% of GDP, 11,99% in 2012 and 12,08% in 2013. All those data show the economic significance of public procurement and coupled with other reasons led to serious penalties imposed by competition authorities especially for involvement in bid rigging.

3. INCENTIVES FOR CARTEL FORMATION

It might seem commonsensical that owners of the undertaking have bigger picture and are more interested in long-term prospect of the company they own than managers of the same undertaking. The CEO commits other people's money to build the enterprise of his vision and that way, ensures that the shareholders are rewarded for trusting their resources on the leadership of the company (Kiyosaki et al., 2004, referenced by Amponsah, Onuoha, 2012, p. 12). In an economic literature on cartels, there is a prevailing view that profit-maximization is the drive for the undertakings. Owners appoint managers for a specific period of time with specific targets and goals that need to be achieved during their tenure. Managers behaviour affects the undertaking's profit and it is, to large extent, up to them to decide, how to accomplish this mission. Value based management advantages aligning interests of high level managers with those of shareholders and stakeholders (Beck, 2014, p. 156). Values and goals should be addressed in a broader perspective even in temporal sense, making sure that undertaking is reaching full potential on longstanding basis. On more operational level, Management Information System as the techniques used by a firm to insure the proper behaviour of organizational participants should include performance indicators reflecting external environment, as well as data that are more long-term and future oriented (Naranjo-Gil, 2010, p. 9).

However, there is general myopia in corporate governance and ownership perspective. The rationale behind it is the fact that shareholders can relatively easy switch and move from undertaking to undertaking or invest in diversified financial products. Generally, they are

interested in short-term performance of the undertaking they own since they are in majority free-floating shareholders. According to this view, employees have a greater stake in the long-run viability of the undertaking than most stakeholders. However, constant pursuit of manager's focus on more value capture instead of value creation could be strong incentive to cartel formation.

Decision to engage in collusion is typically made by senior management (Han, 2009, p. 8). It would be unfair to assume that all of the executive managers are involved in illegal activities, but there is general perception that older managers could be more likely engaged in cartel activity than younger ones since they have well developed wide professional networks. It is assumed that they have worked for many undertakings within same or closely linked industries that facilitate the collaboration and communication necessary to cartel formation. Consequently, cartel arrangements with competitors are much easier to achieve. In addition, if reaching retirement age, it could be presumed that involving in cartel could ensure them additional income before retirement. On the other hand, component of monetary motivation is important, but not equally for all managers and directors (Krasilnikova, 2014, p. 285).

Coherent with this view, young managers are less likely to be involved in cartel creation taking into account that in early stage of their careers they do not have extensive knowledge about market structures, activities within industry and personal connections with the most prominent people in the industry. If aware of possibility that colluding with competitors is a serious breach of competition law, they might not wish to be engaged in activities with such a high risk related to individual and corporate reputation and other severe consequences once cartel will be discovered by competition authority. Managers may therefore use some other strategic options by which good reputation is maintained and competitors outperformed. In addition since in some states director disqualification and imprisonment is applied for those caught in antitrust cartel activity, the younger managers at the beginning of their career could be more precautious and more interested in protecting their long-term careers from reputational damage.

Taking into account impact of fixed versus variable salary components, Han (Han, 2009) found that fixed components can facilitate collusion with a short-term contract, while not affecting cartel stability with a long-term contract. With that in mind, it is easier to understand how short-term perspective from owners and managers can facilitate cartel formation and can produce perverse impact on business and society.

4. ATTRIBUTION OF BLAME THROUGH SANCTIONS – OWNERS AND MANAGERS

One has to distinguish between corporate, also called administrative and individual, criminal sanctions. Although both are regarded as punitive sanctions, these two types of sanctions have specific features, with corporate sanctions generally being seen as less rigorous than criminal sanctions. In some jurisdictions like United States of America culpable individuals, can be subject to imprisonment and financial fines. Individual sanctions are introduced to specifically fine managers responsible for the cartel formation considering that corporate fines mainly affect shareholders. As Wheelan notes in his article such criminalisation must respect the human rights of the accused (Wheelan, 2012)

4.1. Corporate sanctions

Corporate fines are imposed by competition authorities in prevailing number of member states of European Union on cartel members in amount that cannot exceed 10% of annual turnover of undertaking in question. The amount of total fines imposed by the national competition authorities and European Commission are inclining every year and the risk of negative

occurrence and high financial penalties for undertakings involved in anticompetitive practices is immense. For example, the total amount of fines imposed by the European Commission in the period 2010-2014 was 8,7 billion €. The size of these corporate fines depends on various factors such as severity of infringement, duration of the cartel, potential mitigating and aggravating circumstances.

Fining policy covers a wide spectrum of different factual circumstances and it is very difficult, almost impossible, apart from the top ceiling of the fine, for undertaking to envisage in advance what the final outcome of the fine will be. One thing they can be sure of, it is that the fine will most probably be high in order not just to punish undertaking in question for cartel participation but to have deterrent effect for the others not to engage in the future in anticompetitive practices.

As in Europe, in United States of America, in Asia and basically worldwide corporate sanctions represent main competition enforcement and deterrent tool for cartel involvement.

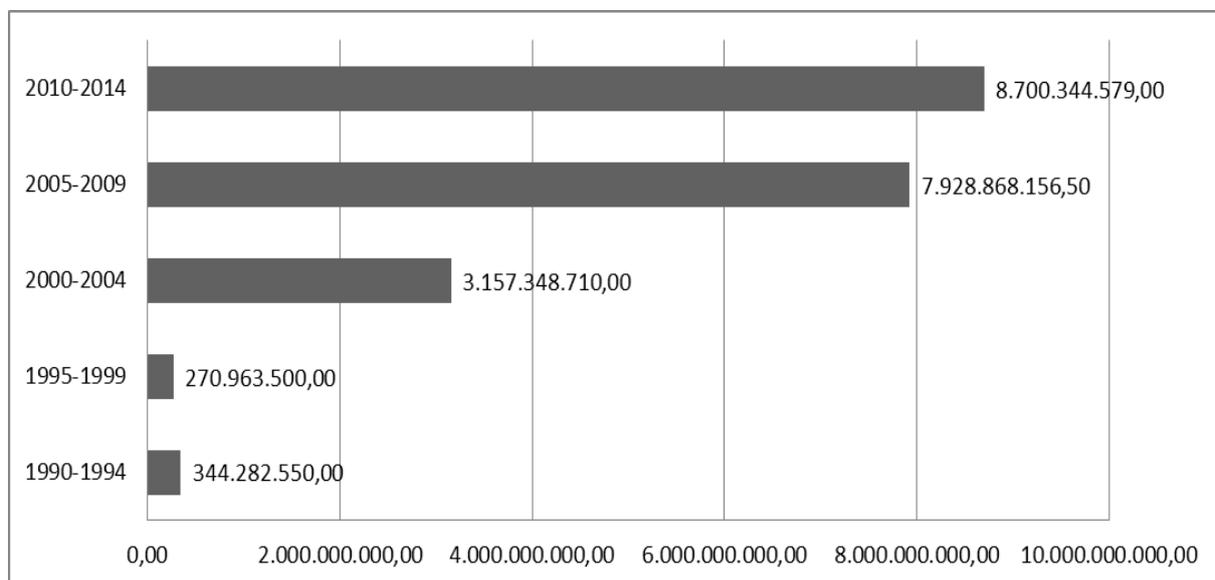


Figure 1: *Fines in € (European Commission, Directorate General for Competition)*

Another way of sanctioning is the „naming and shaming” of enterprises (Cseres, Schinkel, Vogelaar, 2006, p.178). Press releases by competition authorities and publicly available decisions establishing hard-core infringements of competition law may have a disincentive effect. European Commission, Department of Justice and majority of the regulators in countries that have enacted competition law use this practice not just for “naming and shaming” purpose but for the transparency issue as well. On top of corporate fine and bad reputation, victims of cartels can sue the cartel in court and claim private damages for the economic harm suffered. While the USA has decades of experience with private damages law suits, in European Union Directive on antitrust damages actions was adopted in 2014.

4.2. Individual sanctions

Some jurisdiction incorporate individual sanctions aimed at managers personally involved in cartelization practices. Most notably, in the United States of America, involved employees are criminally prosecuted and face substantial personal fines and even incarceration. In Europe, situation differs since European competition law is not targeting liable individuals, so cartels discovered by European Commission only could be punished by corporate fines. On the other hand, some EU member states have enacted laws to prosecute also employees involved in

cartel. Legal solutions also vary across member states, in some like in Ireland and the United Kingdom individuals can be criminally prosecuted, in the Netherlands, like in Poland individuals can be personally fined, in Croatia individuals cannot be personally fined, but can face imprisonment sentence for bid-rigging practices. In Germany, in which bid-rigging can be sanctioned with up to 5 years in prison, financial fines for participation in bid-rigging cannot exceed 1 million €. Poland recently introduced amendments to competition act that enable the competition authority to levy a fine of up to 500.000,00 € against company manager responsible for anti-competitive agreement. Bid rigging is one of the most widely prosecuted forms of collusion and additional fines through criminal offence sanctions for this specific type of collusion is often available. The United Kingdom took step further introducing the system that allows for „director disqualification“. Disqualification order can be issued against manager if they know, or ought to have known that the undertaking had breached competition law. Any undertaking directors involved in the cartel may be disqualified from acting as a director for up to 15 years. In 2008, Bryan Allison, David Brammar and Peter Whittle were disqualified from acting as company directors for periods from between five and seven years for their role in the marine hose cartel agreement. When it comes to the situation, who can be blamed or fined for law infringement on individual level, it is necessary to highlight that although not all employees, consisting of executives and non-executives cannot have profound knowledge of competition act provisions, it is necessary to build awareness within an undertaking that especially bid-rigging and other forms of collusion with competitors might come under scrutiny of competition regulators with severe consequences for the owners of the undertaking and managers involved in unlawful activities. Some employees cannot be held responsible and eventually fined, but managers in charge of respectable unit can be sanctioned for breaching their duty of supervision. In the United States of America, there has been growth in percentage of individuals sentenced to prison, with peak of 70% of prosecuted individuals sent to prison in period 2010-2013. The same goes for the length of prison sentence. Average prison sentence accounts for 25 months for the same period, longer period of time comparing to 2000-2009 and more than three times the average of eight months in 1990-1999. Of course, duration of imprisonment can vary and the longest ever prison sentence Department of justice obtained for antitrust violation and accounted for 5 years and it was related to coastal shipping investigation.

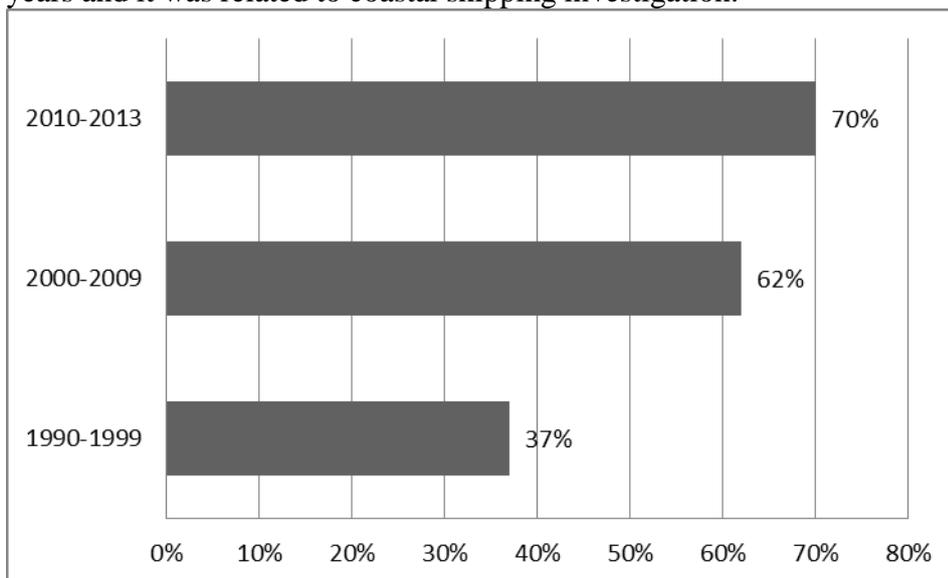


Figure 2: USA – Percentage of individuals sentenced to prison (Department of Justice)

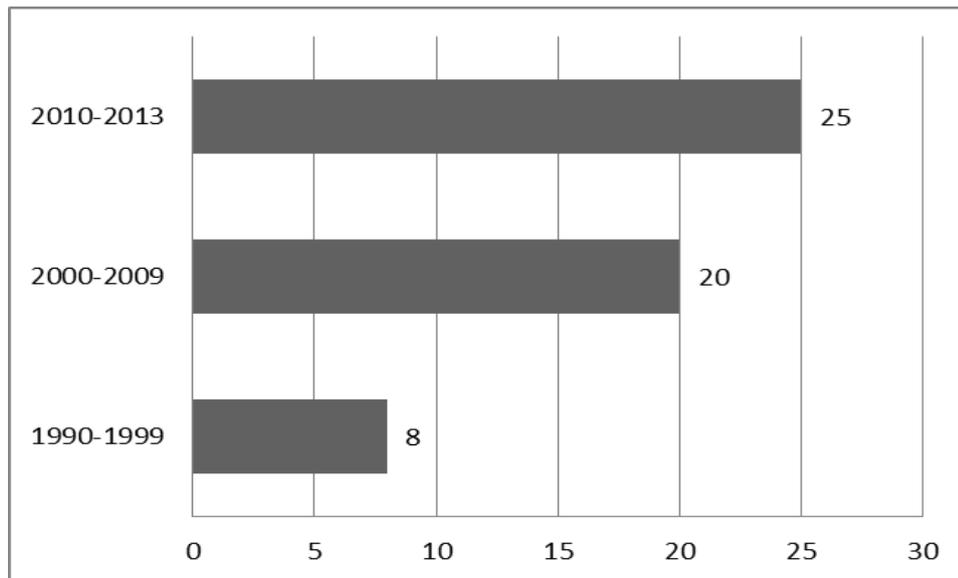


Figure 3: USA - Average prison sentence for cartel involvement in months (Department of Justice)

In auto parts cartel, well-known cartel with various jurisdiction opening formal proceedings against cartel participants, when one of the cartel members - Diamond Electric pleaded guilty in 2014 for conspiring to fix prices of ignition coils, two high ranked employees, president and vice president also plead guilty and agreed to serve 16 months and 13 month jail sentences respectively.

4.2.1. International aspect of individual sanctions

The possible manoeuvring room afforded by difference in legal frameworks and limitation of national laws could allow culpable individuals to escape prison sentence and fines. But, 2013 was the turning point for extradition issues related to breach of antitrust law. For the first time, the United States of America succeeded in extraditing foreign national indicted for antitrust violations. During the summer of 2013, Romano Piscioti, former manager of Parker ITR who holds Italian citizenship, was arrested at the airport in Germany. He was arrested at USA DOJ's request for price-fixing charges. The applicable bilateral agreement between Germany and the United States of America require so called dual criminality meaning that the conduct in question must constitute a criminal offense in both jurisdictions. Piscioti's alleged cartel conduct included bid-rigging, which made his extradition to the United States of America possible. Moreover, the Higher Regional Court of Frankfurt ruled that non-German citizens can be extradited from Germany to the USA. Before the court in the USA he pleaded guilty of price-fixing charges and was fined with 50.000,00 \$ and 24 months in prison. Piscioti was arrested in 2013 and at that time he was not working for Parker ITR. He left that undertaking in 2006, after more than 20 years within this company. DOJ discovered that Parker ITR had participated in a global cartel related to marine hoses. Cartel members agreed to divide the market, allocate shares of marine hose market and basically not to compete with each other. They share all necessary information through one of them, who served as a coordinator of their activities and information send.

The risks of participating in a bid rigging cartel are apparent: high fines and reputational damage through bad publicity for the company, imprisonment for managers; substantial damages owed to customers; and possible exposure to further criminal investigations. Contraventions of competition law and related consequences can be prevented if undertakings enforce effective compliance programs.

5. COMPLIANCE PROGRAMS

Compliance programs are introduced in order to assure that undertaking is following the rules imposed by the government concerning wide range of legal regulation, including competition law. These programs are composed of internal procedures and instructions aim at educating employees about competition law policy and unlawful actions considered under competition act.

Some of competition authorities ensure web accessibility of main instruction and guidelines for compliance programs aiming at the first place at small and medium size undertakings that often do not have in-house lawyer or specialist in competition policy. Since size of the undertaking for the application of rules related to such hard-core restriction like price-fixing, bid rigging is irrelevant, it is crucial that all participants in the market are aware of “don`ts” in the competition culture. The role of competition authorities is important in building awareness of usefulness of antitrust compliance program implementation seeing that the ultimate goal is to prevent the formation of cartels. Guidance for compliance competition programs is available on websites of many institutions including European Commission, French competition agency, Croatian competition agency.

To be successful compliance competition programs should be clear and easy understandable to vast majority of employees and written in a way that all necessary information about specific anticompetitive behaviour presenting antitrust risks like price fixing, market sharing and bid- rigging are included.

Compliance programs include also related monitoring and auditing through internal inspections and investigations of documents, building corporate compliance training courses. When well-designed and adequately implemented and regularly updated, compliance programs have the potential to deter and detect illicit managerial activities and in overall to minimize the risk of involvement in anticompetitive conduct.

Many undertakings realized that it is better to accept this and build the safety valves into the system than to ignore it and risk total collapse on individual and corporate level once discovered as cartel member by competition authority.

Although compliance programs are associated with positive impact on employees and shareholders, there could be some negative aspects as well. Negative effect can arise when employees inclined to engage in antitrust infringements learn from compliance training how to engage more effectively in antitrust infringements or how to avoid detection and punishment (Wils, 2013, p. 13). Whereas compliance programs are not perfect they bring positive change in corporate culture.

6. LENIENCY PROGRAMS

Leniency program is often seen as the most powerful instrument competition authorities have to detect cartels. Through leniency schemes authorities offer immunity from fines or a reduction of fines for undertakings that provide sufficient information about a cartel in which they participated, allowing competition authorities to launch an inspections.

In jurisdiction where individuals can be prosecuted for cartel involvement, like the United States of America, undertaking and responsible individuals could avoid fines, criminal conviction and incarceration if they meet the requirements of the leniency program set by competition authority in charge. Individual leniency policy for individuals in the USA grants the involved employee full immunity when coming forward with incriminating evidence. In the UK, if undertaking applies for leniency, in addition, protection from director disqualification proceedings for all of its cooperating directors is granted.

The objective of such leniency programs is to detect and uncover unlawful anticompetitive behaviour and to encourage undertakings and individuals to blow the whistle. Blowing the whistle is the second best choice only since the best is that cartel did not ever exist.

7. CONCLUSION

Cartel enforcement has never been more strenuous, and the stakes have never been higher for undertakings and managers under investigation for allegations of competition law infringements. This paper explains the reasoning behind the collusion and argues that short term perception of owners and managers facilitate cartel arrangements.

Sometimes undertakings participate in collusion to get an extra profit and reduce costs. It may seem like the paradox that reaping extra gains may require an increase rather than a decrease in costs, but the paradox is more apparent than real since unfortunately many cartels still remain undiscovered.

In order to fight cartels, competition authorities apply a diverse array of tools and sanctions to deter, detect and eventually punish undertakings and individuals for infringements of competition law. According to the data presented in this paper average penalties imposed by competition authorities continue to increase. The average fines over years are significantly higher and overall fining policy has become tougher. Additionally, cartel damage claims against cartel members from companies and individuals who claim to have suffered damages as a result of specific cartel are on the rise. Being a cartel member brings a risk of jail sentence for responsible managers and hefty fines for undertaking if caught. The risks concomitant with this cartel practice cannot be ignored. A shock of this magnitude would cause havoc in the strongest of undertakings, so it came as no surprise that there is growing trend of employing compliance programs within undertakings to minimize the risk of wrongdoing. If aware of cartel participation, undertakings and in some jurisdictions individuals can apply for leniency and immunity from fines, partial or full, is available for those who voluntarily come forward and report and document the cartel activity to law enforcers.

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AN EMPIRICAL COMPARATIVE ANALYSIS OF EMPLOYEE BENEFITS PROVIDED BY MULTINATIONAL FIRMS: THE CASE OF ROMANIA AND SERBIA

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ABSTRACT

The paper aims to analyse post-employment benefits provided by multinational firms, focusing on retirement advantages and pension systems in Romania and Serbia from a comparative empirical perspective. Economic literature highlights the essential role played by pension schemes in assuring a proper level of income after retirement, thus reducing poverty and increasing productivity, with significant positive implications upon overall economic activity. Our research is based on developing several double-log fixed and random effects models, as well as a dynamic and distributed lags model, using a panel structure over the 2005-2013 period and a complex set of indicators (national accounts – GDP total and per capita; labour market – employment, unemployment, productivity, earnings; secondary and tertiary education; pension specific data – general beneficiaries, old age and survivor pensioners, total and by gender, and pension expenses as percentage of GDP). The results show that pensions represent an incentive for employees leading to an increase in resource productivity. At the same time, old age pensions are positively shaping economic growth and employment for the two countries considered, significantly reducing the poverty rate for pensioners. Nevertheless, the two pensions systems are modelled by the economic activity, educational background of employees, as well as by the level of net earnings.

Keywords: *Employee benefits, Economic growth, Earnings, Pension system, Productivity.*

1. INTRODUCTION

Employee benefits represent a complex set of incentives granted by employers (companies and various entities) in order to acquire and maintain their workers and to increase security and labor productivity within the framework of a specific job (Banerjee and Perrucci, 2012). During the last few years, the budgets allocated for employees (human resources) have significantly decreased within the unfavorable economic context shaped by the global economic and financial crisis. Thus, employers transfer the costs of employee accounting and the entire process of adopting these types of decisions towards their workers. This procedure determined entities to become more creative in their efforts to stay competitive in hiring and maintaining their employees. Moreover, employers continue to shape their employee benefits schemes, by insuring a higher responsibility to workers for their coordination.

Overall, according to the 2012 report of the Society for Human Resource Management, the pre-defined pension plans based on employee contributions represent one of the most common and important post-employment advantages granted by firms (92%), followed by saving schemes (34%) or traditional pension plans (21%). In the case of pre-defined pension

plans, the employer states that he will contribute with a certain fixed amount or even that he won't contribute at all to the individual account of the employee. Thus, the employee takes the risk of investing in these pension schemes since the values of performed investment through the pension account can decrease with time. Within this context, globally there are about 68% of the companies ensuring a similar scheme for all or even just for certain employee contributions and 66% of the companies granted loans for pre-defined pension plans based on contributions. These types of loans allow participants to borrow from the pension savings through specific types of developed schemes. Moreover, 39% of the companies have automatically subscribed their workers in pre-defined pension schemes, except for the case when they specifically mentioned that don't want to be caught in these types of systems.

Table 1
Types of employee benefits granted to workers under the form of pension plans and schemes by various companies globally, 2008-2012

<i>Retirement (pension) benefits</i>	<i>% of companies offering employee benefits globally</i>				
	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>
Pre-defined contribution pension plans	84%	90%	92%	93%	92%
Similar pension schemes of employers for pre-defined contribution pension plans of employees	75%	72%	72%	70%	68%
Loans granted based on pre-defined contribution pension plans	69%	69%	69%	69%	66%
On-line investment consultancy	-	-	-	-	55%
Personal investment consultancy	40%	38%	40%	42%	44%
Group investment advices and consultancy	-	-	-	-	41%
Automated subscribing for pre-defined contribution pension plans	32%	35%	39%	41%	39%
Planning advices and preparing for retirement	38%	35%	39%	37%	39%
Pension plans available for all employees	33%	29%	27%	22%	21%
Equilibrated pension plans granted in cash	9%	6%	9%	8%	6%
Formally defined pension plans	6%	6%	6%	5%	5%
Informally defined pension plans	-	-	-	-	5%
Pre-defined contribution pension plans based on debit cards	-	1%	2%	1%	2%

Source: Society for Human Resource Management (SHRM), *2012 Employee benefits: A Research Report*, The Employee Benefits Landscape in a Recovering Economy.

Pre-defined benefits pension plans differ from pension schemes based on contributions through the fact that the employer promises to pay a certain benefit until worker's retirement, the amount granted being established according to specific factors such as age, earnings or working hours. Nevertheless, employers take the investment risk because they will have to pay the promise amount independently from the performance of investment plan. Globally, a relatively low share of companies (about 12%) have reported a temporary blockage of these pension schemes in 2012, thus making them unavailable for new employees.

Taking into account all these aspects, the research performed within this paper has a *double objective*: (i) *first*, the identification and highlight of post-employment benefits focusing on retirement, respectively on the existing pension plans and schemes in Romania and Serbia and the specific labor market mechanisms related to pension incentives and their linkages to labor productivity; (ii) *second*, performing an empirical analysis in order to identify and assess pension systems shaping factors for the two countries considered, as well as the impact of pension plans on economic activity and growth, long term economic development, labor market stability, productivity and earnings.

2. LITERATURE REVIEW ON EMPLOYEE BENEFITS

The International Accounting Standard – IAS 19 describes the main types of employee benefits, including: (i) *short-term benefits*, such as wages, weekly rewards and social security contributions, paid annual and sick leave, bonuses, profit participation, as well as other non-monetary advantages, such as medical care, cars or other free goods and services provided by entities; (ii) *post-employment benefits*: pensions, other retirement advantages or post-employment medical assistance; (iii) *other long-term benefits*, including long-service leave and other long-service advantages, disability benefits, bonuses, profit-sharing and deferred compensation; (iv) *termination benefits*.

Post-employment benefits in the economic literature

The labor market and pension analysis within the new institutional economy perspective (Simon, 1991) highlights the importance of modeling the labor market policies and practices through effective and efficient solutions of productivity increase, generated by asymmetric or incomplete information. Economists applied this approach on employment factors and wages, such as labor earnings, inter-industrial wage differentials, bonuses and incentives for anticipated early retirement (Dorsey et al., 1998, p. 2).

Pensions represent one of the most important labor market institutions, assuring a high and increasing percentage of income for pensioners. The internal perspective on labor markets highlights that pensions generate incentives which promote labor productivity, along with insuring the necessary means for saving during the pension period. Employees involved into a pension scheme are maximizing their welfare in retirement by working without interruption during their entire lifetime until they reach the retirement age (Clark et al., 2013). The pension income is a result of the four specific pillars supporting elderly people, such as redistributive public pensions (pay as you go), private pensions with fund accumulation, private direct savings and post-retirement work (Blake, 2000 in Beju, 2007, p. 17).

Economic theories on retirement reveal that the process of granting pensions by the government after retirement has a negative impact on savings during their active labour market participation and lifetime. Therefore, public and private pension plans are the main essential sources to provide the necessary income for the retirement period. In this context, the main indicators used to analyze the performance of various pension plans/ schemes are generally the dependency rate, respectively the fraction between the total number of pensioners and total active population, as well as the output and efficiency of assets accumulated in pension funds or labor productivity.

Taking into consideration all these aspects, we can highlight that globally there are two main types of pension schemes, respectively: (i) the pay as you go pension system, based on long term savings and resource transfer from young to elderly people and (ii) accumulating funds pension system, which is also a long term saving program, but it implies resource transfer from youth to seniority.

Economic theories on pensions generally conduct the hypothesis that pension schemes increase labor productivity. This offer perspective follows the economists' assumption that pension incentives should generate sufficient added value in order to cover the costs. The constraints applied upon workers' ability to get more attractive jobs or to retire when they desire are extremely expensive, requiring that employers should pay compensation wages in order to attract employees. Employers can also attract workers at a lower cost by offering pension contributions if within those firms the pension incentives don't have productive functions.

In a different perspective outside the economic literature, the possibility for pension to be an instrument that promotes productivity is intentionally ignored or eliminated from the research and debates on pensions and retirement policies. The human resources approach observes pensions as being almost totally coordinated by the preferences of employees. Thus, the imperfect portability of advantages was mainly presented as a disadvantage of pre-defined benefit schemes, rather than a voluntary compensation policy. Nevertheless, pensions are usually discussed within the context of employee benefits, focusing on insuring them the retirement security. This perspective presents pensions exclusively as a mean to insure the necessary income for the after-retirement period.

At the same time, Lazear (1990) concluded that managers view pensions under the form of saving instruments for the after-retirement period, suggesting that they fail to understand the implications of pension incentives on output/ labor productivity, respectively the way in which these might have a strategic value. The economic literature points out the utility of pension incentives and instruments for companies and employees. Still, economists often characterize the penalties given for dropping the pension as barriers to an efficient mobility between jobs (Dorsey et al., 1998, p. 5). Nevertheless, Mulvaney (2011) describes two major arguments for legal reinforcement of pension portability: (i) *first*, a high portability could increase pension benefits for those workers which, for various reasons, have experienced frequent job changes; (ii) *second*, the non-portability reduces labor productivity because it links workers to their job where productivity decreased due to various changes in consumer behavior and preferences or technological shocks.

3. EMPLOYEE BENEFITS AS PENSIONS IN ROMANIA AND SERBIA: A COMPARATIVE ANALYSIS

The Romanian and Serbian socio-economic and demographic context during the last decade reveals the importance of pension systems and social security benefits that can ensure the necessary income for the after-retirement period, as well as significant employee advantages legally reinforced.

In Romania, according to official data provided by the National House of Public Pensions, in December 2014 there were 4692711 pensioners, of which 3360361 were old-age pension beneficiaries, 21062 had an anticipated pension, 91089 had a partial anticipated pension, 686619 were disability pension beneficiaries and 532943 were survivor pensioners. At the same time, 637 people received social help of which 70% were females and 3675 people were comprised in a special category of invalidity and war widower's pension. Moreover, compared to the same period of previous year, there is a slight increase in pension values for Romania, especially in the case of old-age and anticipated pensions, while the disability and survivor pensions have increased at a much lower rate.

If we take into consideration the district distribution of the number of pensioners in Romania during 2013, we can observe that the districts with the highest number of pensioners are Timiș, Bihor, Cluj, Dolj, Argeș, Brașov, Prahova, Iași, Bacău and Bucharest, while a smaller number of pension beneficiaries are registered in Mehedinți, Sălaj, Bistrița-Năsăud, Harghita, Covasna, Giurgiu and Călărași. At the end of 2014, the geographical distribution of the number of pensioners in Romania is almost similar to the one registered in the previous year, with small changes for two districts, respectively Botoșani and Caraș-Severin.

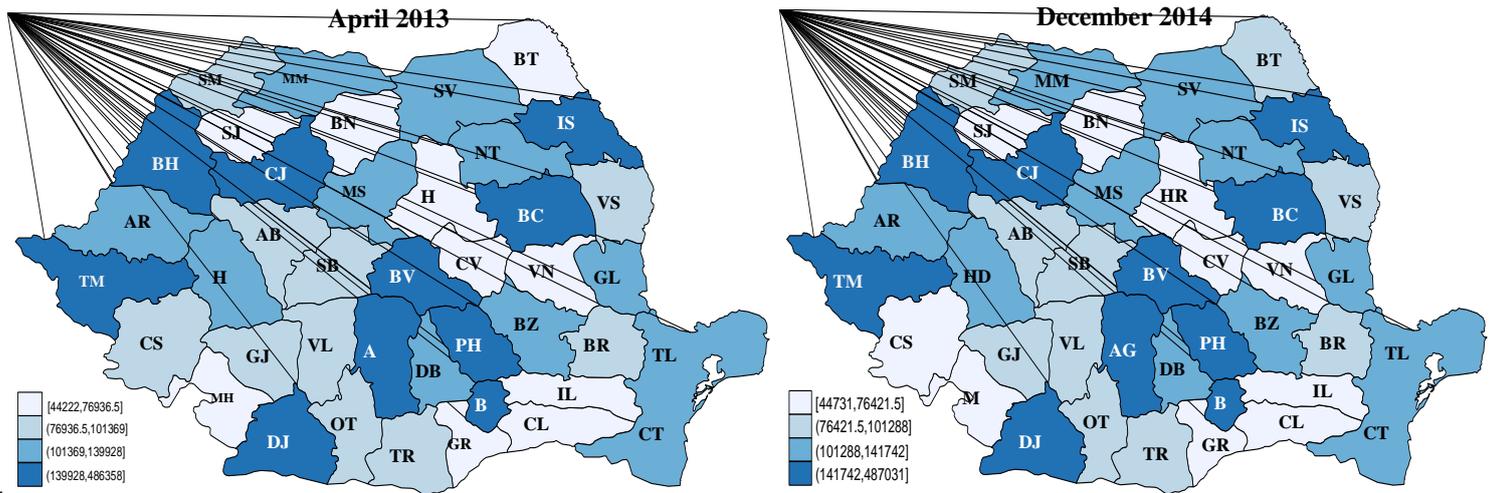


Figure 1: Distribution by districts of the number of pensioners, total social security contributions in Romania

Source: own process of statistical data published by the National House of Public Pensions in Stata 11

In 2014 the pension value remained unchanged compared to the previous year in almost all Romanian administrative counties, except for Bihor county where the average pension value overall social security registered a slight decrease.

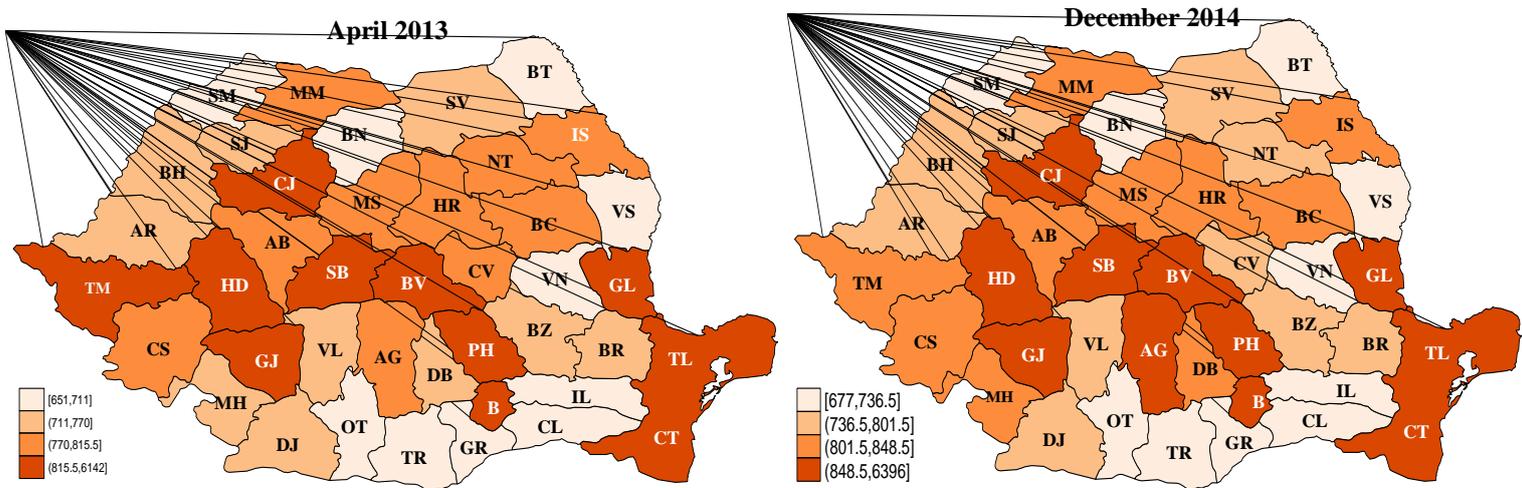


Figure 2: Average pension overall social security contributions by Romanian administrative counties

Source: own process of statistical data published by the National House of Public Pensions in Stata 11

The analysis performed based on pension indicators for Serbia during 2005-2013 highlights that there are three major types of pensions granted, respectively old-age, disability (invalidity) and survivor pensions. In 2013, Serbia registered a total number of about 1.74 million pension beneficiaries, most of which were women (about 970000). During 2005-2013 the evolution of pension beneficiaries was relatively stable, with an increasing trend especially in the second part of the period, respectively 2012 and 2013.

In the case of old-age pension beneficiaries, during 2005-2013 the number of pensioners has significantly increased, from about from about 950000 to 1.22 million people, most of them

being males. In 2010, from the total number of pensioners in Serbia, more than half were old-age pensioners (55.3%), while 22.6% of the total pension beneficiaries have had disability pensions and 22.1% of the total pensions granted were survivor pensions.

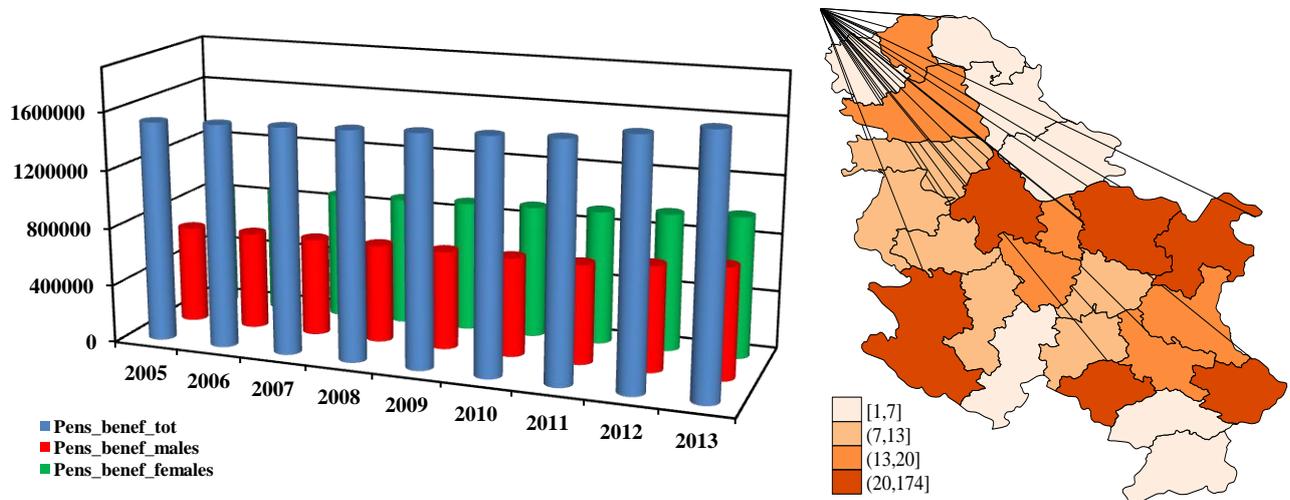


Figure 3: Pension beneficiaries in Serbia, 2005-2013, total types of pensions and according

to gender (right), respectively the employment density (employees by km²) in 2013 (left)

Source: own process of data published by the Statistical Office of the Republic of Serbia

Within this framework, we can state that, even though during the last few years the percentage of old-age pension beneficiaries has increased significantly, still, it remains at a low unfavorable level. The context is even more unstable in the case of employees as major type of insurance, where the percentage of old-age pensioners has reached 50% only in 2008. Nevertheless, the number of pensioners with disability pension registered a decline during 2005-2013, both in absolute and relative terms.

4. METHODOLOGY AND DATA: DEVELOPED MODELS, ECUATIONS, LIMITS AND TESTING

4.1. General form of developed models

The model developed for the analysis of pension systems determinants and shaping factors has the general form of a multiple regression model with panel data. Thus, for panel data, the general linear representation of the model is described as follows (Baum, 2001, p. 219):

$$y_{it} = \sum_{k=1}^k x_{kit} \beta_{kit} + \varepsilon_{it}$$

$$i = 1, \dots, N \quad (1)$$

$$t = 1, \dots, T$$

where: N represents the number of panel units (countries), while T signifies the number of periods (time).

The *fixed effects model* has the following representation (Baum, 2001, p. 220):

$$y_{it} = x_{it} \beta_k + z_i \delta + u_i + \varepsilon_{it} \quad (2)$$

where x_{it} is a $1 \times k$ vector of variables varying between countries and in time, β represents a $1 \times k$ vector of x coefficients, z_i is a $1 \times p$ vector of the variables that are constant in time, but vary between countries (as elements of the panel), δ represents a $p \times 1$ vector of z coefficients, u_i is the individual effects, for every element of the panel, and ε_{it} is the disturbance term. The *random effects model* has the following representation (Baum, 2001, p. 227):

$$y_{it} = x_{it}\beta + z_i\delta + (u_i + \varepsilon_{it}) \quad (3)$$

where: $u_i + \varepsilon_{it}$ represents the compounded disturbance term, and u_i reflects the individual effects.

The general form of the developed model comprises several explanatory variables used within the analysis of the pension systems shaping factors and economic impact for considered panel countries:

$$Y_{it} = \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \dots + \beta_k X_{kit} + \varepsilon_{it}, i=1, \dots, n \quad (4)$$

The proposed model uses the logarithm of the variables in order to capture a precise estimation of parameters, respectively of the influence of different variables on the emigration process, thus taking the general form of a *double-log model*, with the following configuration:

$$\log(Y_{it}) = \beta_1 \log(X_{1it}) + \beta_2 \log(X_{2it}) + \beta_3 \log(X_{3it}) + \dots + \beta_k \log(X_{kit}) + \varepsilon_{it}, i=1, \dots, n \quad (5)$$

The model's general equation can be rewritten under the following form taking into consideration the shaping factors of pension systems:

$$\begin{aligned} PBT_{it} &= \beta_0 + \beta_1 GDP_{tot_{it}} + \beta_2 UR_{it} + \beta_3 NE_{it} + \beta_4 EDtert_{it} + \varepsilon_{it} \\ PBT_{it} &= \beta_0 + \beta_1 GDP_{cap_{it}} + \beta_2 UR_{it} + \beta_3 NE_{it} + \beta_4 EDtert_{it} + \varepsilon_{it} \end{aligned} \quad (6)$$

where:

PBT = Pension Beneficiaries, total types of pensions; this pension specific indicator is used alternatively with the number of old-age pensioners (PBOA), individually and cumulated with the survivor pension (PBOAS), total and according to gender;

GDP_{tot} = total Gross Domestic Product in absolute terms, mil. Euro;

GDP_{cap} = Gross Domestic Product per capita, Euro;

UR = Unemployment Rate, %;

NE = Net Earnings, Euro;

ED_{tert} = First stage of tertiary education, programmes that are theoretically based/research preparatory or giving access to professions with high skills requirements (level 5A).

Our developed model comprises, through its explanatory variables and accordingly to the literature, the determinants and shaping factors of the pension systems as post-employment benefits. Thus, within our empirical analysis, we focus on the country specific elements, by assessing the *push factors*, and to a smaller extent on the *pull factors* shaping pension levels and the number of pension beneficiaries. Nevertheless, our performed analyses take into consideration the particularities and characteristics of the economic activity, economic growth and the level of economic development and macroeconomic stability for considered panel countries, as well as the labor market elements (unemployment, earnings), respectively the educational background.

4.2. Variables and indicators used for the empirical analysis

The general set of indicators used for the empirical research of shaping factors of post-employment benefits as pension systems, as well as pension impacts on Serbian and

Romanian economies (especially on productivity, labor market and poverty for pensioners) comprises:

- i) pension specific indicators:* the number of pension beneficiaries at 31st December during 2005-2013; the number of pensioners on overall pension schemes – total and according to gender (females and males); the number of old-age pensioner – total and according to gender (females and males); cumulated number of old-age and survivor pension beneficiaries; pension values; expenses on pension funds as percentage of GDP;
- ii) macroeconomic and labor market indicators:* total (mil. Euro) and per capita (Euro) gross domestic product; resource productivity (Euro per kg); at-risk-of-poverty rate for pensioners; employment and unemployment rates (%); net earnings (Euro), tertiary education level.

We used national data sources for pension and labor market specific indicators covering the 2005-2013 period, respectively the Eurostat Database of the European Commission for macroeconomic and productivity indicators. All developed models and data were processed through Stata 12 econometric package.

5. RESULTS AND DISCUSSIONS

The empirical analysis conducted for the assessment of pension systems in Romania and Serbia has a *double objective*: (i) *first*, to highlight the shaping factors of the pension systems for the two countries considered and (ii) *second*, to evaluate the impact of pension schemes on the economic activity, productivity, and labor market. The main research limit for the performed empirical analysis is the lack of proper data detailed on long time series regarding the pension indicators, mainly for Serbia. Thus, in order to complete the database and provide accurate results for our developed models, we proceeded to interpolation and extrapolation in the early phase of the research for Serbian pension indicators.

5.1. Shaping factors of pension systems in Romania and Serbia

In order to identify and assess the shaping factors of pension systems in Romania and Serbia we developed a complex set of double-log macroeconometric models, based on various macroeconomic and pension specific indicators. The models were processed based on random and fixed effects through least squares method, respectively *OLS (Ordinary Least Squares)* for the fixed effects models (*FE – Fixed Effects Models*) and *GLS (Generalized Least Squares)* in the case of random effects models (*RE – Random Effects Models*). Moreover, we used the *MLE – Maximum Likelihood Estimator* to consolidate and verify the accuracy of estimated coefficients through a different method and we processed all developed models using robust standard errors. The results are synthesized and presented in *appendix 1*.

Taking all these into consideration and based on the literature review we developed four sets of double-log models based on random effects and maximum likelihood estimations. The first set of econometric models focuses on total gross domestic product in absolute terms (GDP_{tot}), along with other indicators, respectively unemployment (UR), net earnings (NE) and the educational level (ED_{tert}), while the second set is centered on the use of per capita GDP (GDP_{cap}) along with the same labor market indicators in different combination.

As regarding the use of pension specific indicators, we took into account the number of old-age pension beneficiaries (PBOA), individually and cumulated with the survivor pension (PBOAS), total and according to gender.

The results obtained after processing these models based on GLS for random effects and maximum likelihood estimations are almost similar regarding the coefficients, slightly differences being registered only in the case of standard errors of parameters associated with

every model. Thus, we can observe that the level of statistical significance for the coefficients estimated through least squares (GLS) and maximum likelihood (MLE) methods is very high, mostly at 0.1%. At the same time, if we analyze the values of Wald tests for multiple regression models (especially model 5 and model 7), we can point out that all explanatory variables have a significant joint influence on pension specific indicators as dependent variables, these results being extremely important for correct specification of the model. Nevertheless, we used the correlation matrix and Stata algorithms for the multicollinearity hypothesis and Breusch Pagan test for homoscedasticity, the results being thus valid.

Through the perspective of the results obtained we can highlight the importance of economic activity in shaping pension systems in Romania and Serbia, the empirical analysis suggesting that there is evidence to attest that a 1% increase in the level of total GDP could lead to a 0.918% increase in the number of old-age pension beneficiaries, while the similar improve in per capita GDP could induce a significant increase in the number of old-age pensioners by 1.933%.

Moreover, an increase in unemployment rates may induce a perception of uncertainty for a specific job or the impossibility of finding one at an advanced age, these elements could then lead to an early retirement decision, thus increasing the number of old-age pensioners (with about 0.5%). At the same time, an improvement in the level of net earnings represents a significant incentive to remain active within the labor market, thus reducing the total number of pension beneficiaries, as well as the old-age pensioners with about 1.5%, according to the results presented in appendix 1. Still, the per capita income increase implies an improvement of living standards and the assurance of financial resources vital for after-retirement period, thus leading to an increase in the total number and old-age pensioners.

5.2. The impact of pensions as post-employment benefits on economic growth and the labor market

In order to assess the impact of pension systems on Romanian and Serbian economies, by following the economic literature and specific methodology, we developed a set of eight models processed based on fixed effects (FE) and random effects (RE) through least squares method (*Ordinary Least Squares – OLS* for FE models and *Generalized Least Squares – GLS* for RE models). The models are based on two fundamental pension indicators, respectively the total number of old age pension beneficiaries and the cumulated number of old-age with survivor pensioners. The results obtained are synthesized and presented in *appendix 2*.

Thus, we analyzed the pension impact on resource productivity (*model 1*), on net earnings (*model 2*), on the labor market through unemployment rate (*model 3*) and employment rate (*model 4*), as well as on the overall economic activity and living standards through at-risk-of-poverty rate for pensioners (*model 5*), total (*model 6*) and per capita (*model 7*) GDP, respectively on tertiary education level (*model 8*).

In order to validate the models following OLS (Ordinary Least Squares) and GLS (Generalized Least Squares) basic hypotheses for BLUE (Best Linear Unbiased) estimators, we performed the correlation matrix and take use of Stata algorithms for the multicollinearity hypothesis, as well as the Breusch Pagan test for homoscedasticity, and Wooldridge test for serial correlation, the results being thus valid. Nevertheless, the Hausman test applied in order to differentiate the fixed from random effects estimates validated the results of random effects models.

The accuracy of estimated coefficients is also validated through the high level of statistical significance, mostly at 0.1%, as well as through the level of R-square and its adjusted values,

Fisher and Wald tests. Thus, especially in the case of model 6, 7 and 8 which comprise the overall economic activity, the R-squared values highlight that more than 50% (about 90% in the case of model 6 – total GDP) in the variation of old-age pensioners, both individually and cumulated with the survivor pension beneficiaries could be explained by the selected explanatory variables.

Our results comply with the economic literature highlighting that post-employment benefits such as pensions can lead to an increase in productivity, earnings and improve the living standards, as well as the educational level. Thus, there is evidence to attest that an increase in the number of old-age pensioners for the two countries considered can lead to a 0.088% increase in productivity and a 0.351% increase in the level of net earnings. The positive effects of such a measure are also reflected in a total GDP increase by 1.041% and a per capita GDP increase by 0.275%, reducing at the same time the at-risk-of-poverty rate for pensioners by 0.265%. Moreover, a 1% increase in the old-age number of pensioners (a quantitative perspective) generates positive labor market impacts mainly through a significant reduction in unemployment rates by 0.573% and a slight increase in employment rates by 0.082%.

The positive impact is also revealed by an improvement in educational levels, the increase in the number of old-age pensioners leading to a significant increase in the number of persons finishing the first stage of tertiary education, respectively those programmes that are theoretically based/research preparatory or giving access to professions with high skills requirements.

Similar tendencies and impacts can be observed if we take into account the number of survivor pensioners.

6. CONCLUDING REMARKS

The comparative analysis of employee benefits granted by various entities in Romania and Serbia highlights the importance given during the past few years to post-employment benefits, especially retirement advantages and pensions, locally and globally, as well as to the sustainability of the pension systems and to various measures that should be adopted and implemented to insure transparency and to facilitate a possible change in pension indexation methods.

The empirical research performed in order to assess the shaping factors and economic impacts of pension systems in Romania and Serbia complies with the major issues revealed by the literature and highlights that pensions can lead to positive economic effects, having a major impact on labor and resource productivity, labor market stability and general population welfare.

From the empirical perspective, our results point out that the main shaping factors of Serbian and Romanian pension systems are the level of total and per capita GDP, the labor market stability and the level of net earnings. Thus, there is a positive impact of the economic activity in shaping the pension systems for the two countries considered. An improvement in the living standards could lead to an increase in the number of pension beneficiaries due to a certain level of income for pensioners after their retirement. Nevertheless, labor market instabilities reflected mainly through a high level of unemployment could lead to an increase in the number of pensioners for Romania and Serbia.

The economic impact of pension schemes in Romania and Serbia is confirmed by the results and complies with the economic literature highlighting that post-employment benefits such as pensions granted by companies represent important incentives that increase employment, productivity and education, leading to economic growth. The results also point out that an

increase in the number of old-age pensioners can reduce unemployment, having positive effects on total and per capita GDP, respectively on living standards through a significant reduction of the poverty rate for pensioners.

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Appendix 1

Table 2 Results of the models developed for the shaping factors analysis of pension systems in Romania and Serbia, according to the number of old-age pension beneficiaries, individually and cumulated with the survivor pensioners

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	RE	MLE	RE	MLE	RE	MLE	RE	MLE
log_GDP_Total	0.918*** (0.05)	0.918*** (0.05)	0.836*** (0.07)	0.836*** (0.06)	1.741*** (0.20)	1.741*** (0.18)	1.627*** (0.33)	1.627*** (0.28)
log_UR			-0.162 (0.09)	-0.162 (0.09)	0.521*** (0.16)	0.521*** (0.14)	0.464** (0.21)	0.464** (0.18)
log_NP					-1.506*** (0.33)	-1.506*** (0.29)	-1.424*** (0.39)	-1.424*** (0.33)
log_Edteat							0.016 (0.04)	0.016 (0.03)
Constanta	4.461*** (0.54)	4.461*** (0.51)	5.744*** (0.91)	5.744*** (0.83)	10.088*** (1.12)	10.088*** (0.99)	10.417*** (1.36)	10.417*** (1.16)
sigma_u		0.000 (0.04)		0.000 (0.04)		0.000 (0.02)		0.000 (0.02)
sigma_e								
Constanta		0.143*** (0.02)		0.131*** (0.02)		0.083*** (0.01)		0.082*** (0.01)
R-squared	0.9558	-	0.9630	-	0.9852	-	0.9854	-
Wald / LR	345.70	56.13	390.81	59.36	529.01	75.78	876.46	76.06
N observations	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000
* p<0.05, ** p<0.01, *** p<0.001								
log_GDP_Total	1.923*** (0.45)	1.927*** (0.03)	1.387*** (0.31)	1.257*** (0.29)	-2.719*** (0.51)	-2.719*** (0.45)	-1.968*** (0.52)	-1.968*** (0.44)
log_UR			-0.759*** (0.16)	-0.739*** (0.15)	-0.991*** (0.07)	-0.991*** (0.06)	-0.790*** (0.10)	-0.790*** (0.08)
log_NP					3.278*** (0.39)	3.278*** (0.35)	2.214*** (0.53)	2.214*** (0.45)
log_Edteat							0.085* (0.03)	0.085** (0.03)
Constanta	-1.842 (3.85)	-1.842 (-)	4.551 (2.82)	4.766 (2.55)	5.351*** (1.19)	5.351*** (1.05)	8.776*** (1.67)	8.776*** (1.42)
sigma_u		0.311 (0.18)		0.037 (-)		0.000 (0.03)		0.000 (0.02)
sigma_e								
Constanta		0.350*** (0.06)		0.287*** (0.05)		0.119*** (0.02)		0.097*** (0.02)
R-squared	0.5217	-	0.8169	-	0.9695	-	0.9798	-
Wald / LR	18.17	9.15	66.91	30.23	444.90	62.82	629.31	70.20
N observations	18.000	18.000	18.000	18.000	18.000	18.000	18.000	18.000
* p<0.05, ** p<0.01, *** p<0.001								

Appendix 2

Table 3 Results of developed models for the impact analysis of pension systems in Romania and Serbia on productivity, earnings, labor market, economic growth and educational level, through the perspective of old-age pension beneficiaries, individually and cumulated with the survivor pensioners

Random effects						
Model 6	Model 7	Model 1 Model 8	Model 2	Model 3	Model 4	Model 5
b/se	b/se	b/se b/se	b/se	b/se	b/se	b/se
log_PBOA 1.041*** (0.06)	0.275*** (0.06)	0.088* 3.431*** (0.04) (0.34)	0.351*** (0.08)	-0.573*** (0.12)	0.082* (0.03)	-0.265* (0.11)
Constanta -4.156*** (0.82)	4.480*** (0.94)	-2.608*** -38.635*** (0.65) (4.93)	5.443*** (1.15)	10.670*** (1.78)	2.811*** (0.48)	6.851*** (1.60)
R-squared 0.9558	0.5317	0.1966 0.8652	0.5532	0.5784	0.2851	0.2658
Wald 345.70	18.17	3.91 102.73	19.81	21.95	6.38	5.79
N observations 18.000	18.000	18.000 18.000	18.000	18.000	18.000	18.000
Fixed effects						
Model 6	Model 7	Model 1 Model 8	Model 2	Model 3	Model 4	Model 5
b/se	b/se	b/se b/se	b/se	b/se	b/se	b/se
log_PBOA 1.247 (0.71)	1.375 (0.77)	1.251* 11.640** (0.48) (3.73)	2.846** (0.76)	4.993*** (0.57)	-1.370*** (0.17)	-2.380 (1.28)
Constanta -7.153 (10.31)	-11.539 (11.17)	-19.533* -158.152* (7.00) (54.28)	-30.895* (11.09)	-70.379*** (8.34)	23.964*** (2.52)	37.638 (18.70)
R-squared 0.171	0.176	0.311 0.394	0.482	0.835	0.807	0.186
Fisher 3.102	3.214	6.774 9.747	13.977	76.014	62.888	3.433
N observations 18.000	18.000	18.000 18.000	18.000	18.000	18.000	18.000
* p<0.05, ** p<0.01, *** p<0.001						
Random effects						
Model 6	Model 7	Model 1 Model 8	Model 2	Model 3	Model 4	Model 5
b/se	b/se	b/se b/se	b/se	b/se	b/se	b/se
log_PBOAS 1.148*** (0.06)	0.302*** (0.07)	0.097 3.790*** (0.05) (0.37)	0.386*** (0.09)	-0.632*** (0.14)	0.091* (0.04)	-0.289* (0.12)
Constanta -5.960*** (0.95)	4.023*** (1.06)	-2.753*** -44.690*** (0.73) (5.52)	4.849*** (1.29)	11.664*** (2.00)	2.671*** (0.53)	7.261*** (1.81)

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R-squared		0.1936	0.5489	0.5765	0.2828	0.2590
0.9526	0.5254	0.8658				
Wald		3.84	19.47	21.78	3.31	5.59
321.71	17.71	103.20				
N observations		18.000	18.000	18.000	18.000	18.000
18.000	18.000	18.000				

Fixed effects

Model 6	Model 7	Model 1 Model 8 b/se b/se	Model 2 b/se	Model 3 b/se	Model 4 b/se	Model 5 b/se
log_PBOAS		1.152*	2.656**	5.092***	-1.413***	-1.873
1.042	1.142	11.964** (0.53)	(0.87)	(0.68)	(0.19)	(1.41)
(0.77)	(0.84)	(3.97)				
Constanta		-18.345* -165.464*	-28.691*	-72.916***	24.889***	30.663
-4.404	-8.387	(7.84)	(12.93)	(10.10)	(2.88)	(20.91)
(11.39)	(12.38)	(58.65)				

R-squared		0.239	0.381	0.787	0.778	0.105
0.109	0.110	0.377				
Fisher		4.717	9.215	55.493	52.568	1.752
1.827	1.859	9.084				
N observations		18.000	18.000	18.000	18.000	18.000
18.000	18.000	18.000				

* p<0.05, ** p<0.01, *** p<0.001

PRODUCT PLACEMENT AND BRANDED ENTERTAINMENT: WHY IS IT MORE RELEVANT THAN EVER?

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ABSTRACT

Although product placement, that is, the display of a product in a movie or a TV programme, has a history of several decades, it became increasingly significant and inevitable in the United States and Europe in the past years.

According to research in America conducted by PQ Media, a company specialised in media research, while advertising spending for this purpose was only USD 190 million in 1974, it was USD 512 million in 1985, USD 1130 million in 1994, and USD 3458 million in 2004 (Lehu, 2009). It has since exceeded the magic threshold of USD 10 billion, too. (Onlinemba.com, 2011).

At the same time, if we examine the Top 40 list of Hollywood movies, we can see that the average number of product placements per movie was 17.8 in 2011. (Brandchannel.com, 2012).

However, brands do not only appear in movies but also in series, reality shows, talent shows, and so on.

This has several reasons:

- changes in consumers' relationship to advertising*
- technological progress, mainly digitalization,*
- the reform of advertising,*
- the needs of film and TV show production companies, and*
- changes of the legal environment.*

The study addresses all these issues.

Keywords: *Advertising, branded entertainment, marketing communication, product placement*

1. CHANGES IN CONSUMERS' RELATIONSHIP TO ADVERTISING

Several articles and books published in the past years analysed the fundamental changes in consumers' relationship to advertising:

- there are more and more advertisements, but less and less are noticed,*
- advertising annoys and disturbs consumers more and more,*
- there is an increasing tendency to disbelieve in advertisements,*
- people are more and more familiar with the operation and effects of advertisements, and*
- they tend to avoid advertisements.*

While the number of commercial messages reaching the average American consumer each day was 600 in the year 1985, the number had increased to 3000 (!) by the year 2002, as shown in well-known statistics (Lehu, 2009). In addition, the numbers in those years included no online advertising messages or hardly any of them – today's numbers are much higher as they include such messages, too.

However, the greater quantity of advertising messages does not mean that they have a greater influence on us, too. A simple question: did the Reader watch television yesterday? If yes, do you remember any advertisements? Oh, it is just great! And can you tell the brand that appeared? Well, if yes, then the Reader belongs to a camp that is becoming smaller and smaller – not quickly, but gradually.

This is because several people are more and more annoyed and disturbed by advertisements:

- There are people who just find them boring: "oh no, a commercial break again, and they always say the same thing..." The genre, at least television advertising, is just not as fresh and exciting as it used to be some time ago.
- There are people who are bothered by them. Research has shown that the Top 5 most disturbing advertising tools are (listed from number five to number one): advertising materials dropped in the mailbox, radio advertisements, internet advertisements, television advertisements between programmes, and last, but not least, advertisements interrupting television programmes.

In the meanwhile, several consumers have a tendency to disbelieve in advertisements. It is enough to think of the photos on the Internet claiming that advertising lies: while you see a beautiful hamburger on posters, you get something completely different on your plate.

At the same time ordinary people become more and more aware of the operation of advertising and its mechanism of action. They have got used to it, so they know exactly what to expect from it.

Therefore it is no wonder that consumers try to avoid advertisements as much as they can. Moreover, some of them are even willing to give money for advertising-free content; for example, they subscribe to HBO. It is no coincidence that its slogan is "It's not TV. It's HBO."

If they do watch channels broadcasting commercials, then they do various things to avoid them. Of course it was all the same in old times: when there were less channels, research conducted in London showed that electricity and water consumption increased greatly from time to time (Fazekas–Harsányi, 2011). But why? Because these were commercial break times, and several people left for the toilet or kitchen immediately.

And we cannot be sure that they are watching commercials if they stay in the room, either. It is possible that they just sit back and close their eyes (and ears), maybe they even mute the television set. Multitasking is even more likely, meaning that they do something else while commercials are running – most likely they use their laptops and smartphones, or read newspapers and magazines. This is typical to such an extent that if we sum up their daily media consumption, the amount exceeds 24 hours. (Csordás–Nyíró, 2013). However, multitasking does not only include simultaneous media consumption, but other simultaneous activities too: it happens quite often that viewers have dinner while watching television (especially during commercial breaks), or engage in chat with their family members or friends in the room.

However though, the most likely scenario is that they reach for the remote control and switch to another channel whenever advertisements appear. The commonly used international term for this phenomenon is zapping.

2. THE EFFECTS OF TECHNOLOGICAL PROGRESS AND DIGITALIZATION

Today's consumers have got control over watching television simultaneously with the development of technology, which is clearly demonstrated by the abbreviation DVR, that is, digital video recording. "The first two well-known and widely spread devices, TiVo and Replay TV, both appeared in the United States of America in 1999. (...) In Hungary, most viewers have the opportunity to record programmes on a hard disk built in a set top box., and the first such offer was an IPTV subscription called T-Home offered in the portfolio of the T group from November 2006." (Nyíró, 2011, 8–9.).

But what is IPTV exactly? It means that television is broadcast via the Internet as its name – Internet Protocol Television – suggests. This also enables viewers to "watch programmes with a time shift" ("Time Shifted Viewing", TSV), that is, programmes can be recorded and watched later on (Nyíró, 2011).

The problem (at least from an advertisers' point of view) is that most viewers watching TV this way fast-forward advertisements – or skip them, we should say in the digital age. Research conducted by Forrester Research in the United States in the middle of the 2000s concluded that 92% (!) of viewers skip advertisements if they watch a previously recorded programme (Zutter, 2005). Hungarian experts including Ildikó Fazekas, the former chairwoman of European Advertising Standards Alliance say that "Television companies are likely to lose some of their traditional advertisements as a result of digitalization." (In-Store, 2008a, 17–19.)

Technological progress also has another great advantage for consumers, although it was not brought about by digital television directly: viewers can choose from a variety of a hundred or even more channels. This makes it even easier for them to switch between programmes if they see commercials, and find another programme without advertisements.

3. THE REFORM OF ADVERTISING

Large-scale advertisers and advertising agencies glorified the 30-second advertising spot for decades, thus they failed to notice the warning signs mentioned above for a long time. They were mostly confident that even more advertising spots reserved at even higher prices would help them.

Nevertheless, the costs of traditional advertising and TV spots are high – we could see incredible prices both internationally and domestically, especially before the crisis.

In the early 2000s, for example, the average production cost of advertising spots in the United States was USD 343 000. It was even higher in the case of soft drinks or snacks (USD 530 000), not to mention the advertisements of clothing (USD 1 053 000) (see Ries–Ries, 2004).

And this still does not include media buying, that is, the cost of media appearance that can be even higher than production costs. In the year 2011, one 30-second spot broadcast in the halftime break of Super Bowl (the final game of NFL), a dream of all advertisers, cost USD 3.5 million (ESPN, 2012). In the year 1972 this amount was only USD 86 000, and in the year 2001 it was still "only" USD 2.1 million (Ries–Ries, 2004).

Although some media decreased their media buying prices in the past years as a result of the multiplication of the number of channels, the cost per thousand advertising impressions (the cost of reaching 1000 people, viewers or consumers), the so-called CPT (Cost Per Thousand), mostly increased in the United States.

It is no wonder that Starbucks founder Howard Schultz said, "I look at the money spent on advertising and it surprises me that people still believe they are getting returns on their investments." (Ries–Ries, 2004). So most probably we will not see any Starbucks TV advertisements. However, the brand appears in several movies – it is enough to think of the series *Sex and the City*, and the movie *Austin Powers* that features a Starbucks café as headquarters.

But Howard Schultz is not the only critic of advertising. Sergio Zyman, former Coca-Cola global marketing director, wrote a book titled "The end of advertising as we know it" (2003). Hungarian authors are of a similar opinion. According to Katalin Nádasi (2013, 135.) "the effectiveness of advertising in a traditional sense shows a decreasing tendency". As the title of *Instead of Advertising*, a book by Csaba Mányai, published in the year 2009, suggests, a new approach is needed. And what does he suggest as a solution? "Interaction Design for Marketing".

Another American author, Joseph Jaffe, claims that we just need to find out what would be the next step after the death of the 30-second spot. The title of his book published in the year 2005 is *Life after the 30-second spot – Energize Your Brand with a Bold Mix of Alternatives to Traditional Advertising*.

Advertising also became a crucial financial issue with the outbreak of the financial crisis in the year 2008. "It is vital for companies that had to adjust their budget according to the crisis to find new, less costly but still effective media" (Nádasi, 2013, 136.).

Advertisers apparently try a wide range of tools. For example, their response to viewers switching to other channels whenever an advertisement appeared was:

- Live shows, or at least pre-recorded programmes; for example, talkshows or talent shows where the host says "Don't go away, We'll be back soon!", or "And now, a short commercial break. Stay with us!"
- Single spot: There is only one short advertisement, during which viewers (hopefully) do not switch to other channels. (Of course media sell these spots to advertisers with a surcharge due to their special position.)
- Roadblock: other channels air the same advertisement at the same time. For example, a two-minute spot by Djuce could be seen at 8.57 PM on a Sunday in October 2010 on the following channels: TV2, RTL Klub, Viasat, TV6, AXN, MTV, VIVA, Discovery Channel, Cool, Film+. This means wherever you switched, you saw the very same spot. As the Djuce.hu website (2013) says, "According to AGB measurement 2.96 million people out of the total population saw the two-minute image film." The aim was to make Djuce the brand of people under the age of 26, and define it as more independent than Telenor (called Pannon at the time). They even opened their own independent shops, but they were open just for a while, then disappeared soon – that is, roadblock in itself was not enough for success.
- Last, but not least: Philips had an innovative patented technology that would have prevented viewers from being able to switch to another channel whenever a commercial break would come. In case of a digitally recorded programme, it would have also prevented viewers from fast forwarding through commercials (Index.hu, 2006). Later they decided not to introduce the technology to the market due to the expected consumer resistance.

There are several other options besides forcing traditional TV advertising, that is, spot advertisements on viewers. These tools include product placement and branded entertainment. So let us put advertising in the film/programme! Or, in a broader sense, let us put advertising in the content as this content can be in various forms: besides films and TV programmes it can also be a computer game, a book, or even a piece of fine art.

Given the above, it is no surprise that in a survey conducted in the year 2005, 63% of the members of ANA (the US Association of National Advertisers) stated that they use branded entertainment as a part of their communications plan. Moreover, 52% of them transferred the financial resources for this purpose from their TV advertising budget (Consoli, 2006). In the year 2008, as much as 87% of advertisers said that branded entertainment will be the focus of TV appearances (Lemmonier, 2008).

A study by the Association of National Advertisers incorporating about four hundred companies also pointed out that advertisers like product placement because it creates "closer emotional bonds" with the consumer, and people feel more attached to a product if their favourite series heroes use it, too (Origo.hu, 2011).

4. THE PRIORITIES OF FILM AND TV SHOW PRODUCTION COMPANIES

Product placement has two important advantages from the perspective of TV show producers and filmmakers:

- it makes money – which is not necessarily physical money, but can also be some accessory or tool they need;
- it makes the film or show more lifelike, more realistic.

Let us start with the first advantage, money. The average cost of today's big Hollywood movies reaches USD 100 million (Lehu, 2009). Producers must inevitably make some of this money by means of product placement. The situation is no different in the case of TV programmes – as there are more and more channels, the number of viewers per programme is decreasing, also resulting in a drop in advertising revenues as less viewers are less attractive for advertisers. However, in order to create a high quality programme, costs may not be decreased below a certain level. Therefore you need revenues, and one of the major sources is product placement. Its significance is also increasing as a result of downloads, especially illegal downloads: filmmakers experience a decrease in ticket revenues and DVD sales, and musicians can sell less records, whatever electronic format they use to sell their works. This fall in revenues can be counteracted by product placement, as downloaders do not pay for the content, but still meet brands whose placement is covered by advertisers.

However, it would be wrong to think that money is the only reason behind product placement. Films are more realistic if they feature brands.

For example, Steven Spielberg used several brands in his movie about the future, *Minority Report*, set in the year 2054. He said that he included so many brands to show that the story takes place on Earth, and suggest that this kind of future is not that far away (Lehu, 2009).

Nevertheless, the importance of brands is even greater in movies set in the present, not least because we live in a branded world, and define ourselves according to brands (Neumeier, 2006). It is a world where culture and consumption merge more and more.

Therefore brands are also excellent means for filmmakers to depict society. The series *Gossip Girl*, for example, is about two different social groups: one of them has an elite and wealthy life on the Upper East Side (UES), while the other lives in Brooklyn. The differences between the two strata are also justified by the brands that they use: people living on the Upper East Side always have brand-new and state-of-the-art technical devices, while people of the "lower" layer only get older and cheaper products (Wollein, 2011).

As Tamás Nagy, the producer of the Hungarian series *Jóban Rosszban* ("Foul and Fair") says, "Clothing is also a story-telling tool. If we see people in a T-shirt with a little crocodile on it, we associate it with their financial status; and if they wear a branded tracksuit, we immediately feel it is also connected with their status" (Kalmár, 2011).

Ildikó Fazekas, the former chairwoman of European Advertising Standards Alliance, also points out that "the point and essence of the (product placement) »genre« is that a brand characterizes its user just the same way adjectives are used in literature. Manufacturers and filmmakers are all aware that the quality of drinks consumed by characters says much about them, be it some poor quality wine sold in cans, or a famous French champagne. The latter has a message that includes power, all the efforts made for the brand, and it all connects with the character." (Élelmiszer szaklap, 2011)

If a specific product is used by a famous actor or performer, ordinary consumers or customers may say, "Unbelievable! My phone is the same as the one Rihanna used in her videoclip for *Cry!*" Therefore everyday people may feel like a star for a little while, too.

This was also proved in a study released by media agency MindShare North America in the year 2005. Their report stated that 80% of television viewers are positive towards the appearance of brands, and 1/3 said that they would try products introduced this way (Jhaveri, 2011).

On the other hand, it is surprisingly difficult to create a programme that is free of brands, with all brand-specific elements covered or blurred. Such movies were even produced in the United States, for example, *Repo Man* released in 1984, where the beer brand was called beer, the water brand was called water, and so on, but viewers did not really grasp the concept – actually, they found it rather disturbing.

5. CHANGES OF THE LEGAL ENVIRONMENT

Well, the situation in Hungary was similar to the movie Repo Man in the period between 1996 and 2010 as the Hungarian media law forbade product placement with just a few exceptions (In-Store, 2008b).

At the same time, the situation was not limited to Hungary; it was the same in most European countries. If someone was watching TV in the evening, he/she could easily notice that Hollywood movies and series were loaded with brands. In the meanwhile brands were not allowed to appear in self-produced programmes apart from a few exceptions, for example, if the film was originally released for cinema.

This unfortunate situation was resolved on 1 January 2011 in several countries including the United Kingdom and Hungary. This is also an important reason to address this topic in depth.

6. CONCLUSION, VISION

If we examine the numbers of the past years, we can see the tendency that more and more advertisers require alternative advertisements in addition to (or instead of) traditional TV spots, and Hungary is no exception either. These novel tools include sponsored spots as short as a couple of seconds, prize competitions related to a specific programme, product placements, branded entertainment, etc.

If we analyse international numbers, statistics by PQ Media prove that spendings on any kind of product placement (in movies, TV shows, video games, etc.) are on the rise, and this tendency will be further strengthened in the future.

The study analyzed the background of this phenomenon and explored five reasons:

- changes in consumers' relationship to advertising,
- technological progress, mainly digitalization,
- the reform of advertising,
- the needs of film and TV show production companies, and
- changes of the legal environment.

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DEVELOPMENT OF GAMZIGRAD SPA AND INCREASING OF ENERGY EFFICIENCY

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ABSTRACT

Due to the fact that man in the last few decades has significantly damaged the environment and eco-system in which he has been living and working, it is raised the question of possibility of further survival and development of the planet of Earth. As the human civilization had pitilessly spent unrenovable energy sources to achieve economic progress and development of economy, we have faced disappointing fact that there are less and less such sources, so that there is a great danger which could cause their complete exhaustion. Trying to find solution for the conditions in which he is, man has started to direct his attention to other, alternative sources of energy, so-called group of renewable sources, whose use does not endanger balance in the nature and does not damage the eco system. The Paper deals with one type of renewable energy, geothermal energy. It was calculated the energy efficiency of the geothermal well in the spa of Gamzigradska Banja if the well is used for heating the Special Hospital for Rehabilitation in Gamzigradska Banja.

Keywords: *Damaged environment, ecosystem, Gamzigrad spa, energy efficiency, renewable energy*

1. INTRODUCTION

Modern world has been largely faced with the necessity for global and common responsibility for development in accordance to both the needs of people and nature and the concept that the planet Earth has to be saved in an acceptable way. Modern business means socially responsible behaviour of all subjects who should be active participants in economic community. Application of new theoretic frames has enabled a new discipline in economics of the environment whose first contributions were connected with the analysis of economic aspects of pollution, the authors of which were Ayres and Kneese (1969), Smith (1972) and Daly (1977) (Jenner, Smith 2002, pp. 98-105). The most significant stage in the development of theory of 20th century economics, however, occurred with appearance of the book 'The Entropy Law and the Economic Process' by Nicholas Georgescu-Roegen (Georgescu-Roegen, 1971, p. 68). Georgescu Roegen's new view, based on concept of thermodynamics, was further elaborated first by Mirowsky (1989) and some time later by Beard and Lozada (1999). Georgescu Roegen's message is that the law on entrophy condemns the civilization to decrease when all supples of high organized substance – energy, that is, low entropies, have been used up (Georgescu-Roegen, 1979, p. 24). Roegen pointed to the significance of the law on entrophy in the area of economics (Georgescu-Roegen, 1966, p. 65). The only thing that mankind, by a rational action can do, is to postpone the moment. In other words, to make the rate of entrophy increase on the Earth be as much slow as possible. Material goods and their production, exchange and consumption have to be understood within the cultural matrix (Kuka, 2010, p.19). Therefore, it means that the term of sustainability is not a new one. Talking about the roots of this concept, within efforts to find an answer to the question about

the perspectives of the development of the human society with limited natural resources and growing demography, E. Kula emphasises that A. Smit, D. Rikardo and R.T. Maltus (Kula, 1998, pp. 1-5) were dealing with the problems of the environment as far as in 19th century. The best way to protect the environment and the best way to achieve economic values of both a business subject and the state as a whole is to use the natural values in the way to be available to future generations. When using renewable natural resources, unrenovable raw materials are largely saved and the environment is protected. Thus, if a man wants to be in harmony with his natural being, and, at the same time, wants to satisfy the economic side of his existance, it is necessary to adjust the principles of economics with the principles of ecology and sustainable development. This Paper presents the possibilities for saving conventional energy substances used for heating the Special Hospital for Rehabilitation in the spa of Gamzigrad. Increasing energetic efficiency of the Special Hospital for Rehabilitation by application of mathematics methods for calculating saving, which can be obtained by using the most abundant geothermal well in the spa of Gamzigrad Spa, would contribute to decrease costs, unrenovable energy substances, better heating of the Hospital, and quite naturally, greater comfort of the patients.

2. SPECIAL HOSPITAL FOR REHABILITATION „GAMZIGRAD“

In the vicinity of Zajecar, the town in Eastern Serbia, it is situated the Gamzigradska Banja spa in which there are two economic entities, the 'Kastrum' Hotel and the Special Hospital for Rehabilitation 'Gamzigrad'. Since the tourist potential of the spa is rather great, it is a must to keep this biotop ecologically clean and, thus, be more attractive for tourists. Therefore, the strategic development of the spa involves possibility to make it, according to European criteria, both an attractive historically-tourist destination and a spa center which offers facilities that cannot be found elsewhere. The Special Hospital for Rehabilitation 'Gamzigrad' was founded in 1978. There are two indoor pools with thermo-mineral water. The thermo-mineral water is 42 C° and is used for hydrotherapy in pools, galvan and mineral baths, and underwater massage therapy. There is also electro-therapy with modern equipment, the apparatus based on the change of pressure, such as Vacusac and Vasculator, whereas the photo-therapy is carried out by ultra-violet and rouge lamps. Kinesitherapy and work therapy are done in well-equipped halls. The hospital disposes of 212 beds, so that special attention is paid to organizing sport activities. As the Special Hospital in Gamzigradska Banja makes use of thermo-mineral water for treatment and as therapeutic means, it is possible to make it an ecologically representative institution which would, at the same time, be completely independant in relation to the use of energy. Relating the latter, the research is based on calculating possible saving of energy necessary for functioning of the Hospital. Since the effect of the environment on tourism is most vivid in tourist destinations, special attention has been paid to using one aspect of renewable energy (Stojanovic, Djekic, 2011, p.114). Calculation of energetic efficiency is based on saving of energy by incereasing the flow of water of one of the most abundant wells of geothermal water in Gamzigradska Banja, minimal increase of energetic efficiency of the Special Hospital, and by saving at minimal use of the renewable (geo-thermal) energy for the needs of the Special Hospital. To understand better further research, and for the needs of the Paper, we will explain the fololowing terms: obtained heat and heat burden. These terms relate to the building itself and its thermal efficiency. The aim of the explanation is to introduce the term of thermal efficiency of the building of the Special Hospital, then the term of the specific heat aimed to calculate values relating to the flow of water and the most abundant geo-thermal well in Gamzigradska Banja.

3. THERMAL GAIN AND SPECIFIC HEAT

To make an analysis of the heat transfer through the construction cover of the building aims to enable as much as possible realistic calculation of needs for heating and cooling the inside of the building and, according to these needs, to determine relevant heating and cooling capacities of the elements of thermo-technical installations equipment (<http://termoizolacija.net/wp-content/uploads/2011/12/06-Toplotno-optere%20C4%87enje.pdf>). During winter, the temperature of the air in the rooms which people stay at is higher than the one outside, therefore, the building 'loses' heat. To keep the air temperature in the rooms constant and to make people feel comfortable, it is necessary to compensate the heat lost, that is, to compensate the heat losses. Accordingly, the heat losses represent the amount of heat, that the room gives away to the outside space, in a time unit. In summer, the temperature of the air outside is high, the days are mostly bright with a great amount of sunshine. Significant amount of the sunshine reaches the inside of the building. To keep the temperature in the rooms lower from the one outside, it is necessary to eliminate extra heat. Heat gains mean the amount of heat the room gets either from outside or inside sources of heat in a time unit. Although air-conditioning, including cooling the air, is practiced usually in summer, the system of air-conditioning is working all year round. It means that in our climate conditions in winter the air is heated while in summer it is cooled. In winter, the calculated amount of heat that the room loses is equal to the amount of heat that should be compensated by the system of heating (<http://termoizolacija.net/wp-content/uploads/2011/12/06-Toplotno-optere%20C4%87enje.pdf>). Specific heat is the energy needed for raising the temperature of the unit mass for a unit temperature. Its dimensions are the energy per mass, per level, and in the SI system it is expressed by the unit Joule per kilogram-Kelvin (J/kgK). The Table 1 shows the values of specific heat of some substances. The reason why the values of water are bolded is that they are to be used for calculating the saving of energy (http://sh.wikipedia.org/wiki/Specifcna_toplota).

Table 1: Specific heat of some substances (http://sh.wikipedia.org/wiki/Specifcna_toplota)

Substance	Physical condition	Specific heat $J/(kg\cdot K)$
Water	liquid	4186
	solid (0 °C)	2060
Air	gas	≈ 786,9

4. ENERGY EFFICIENCY OF THE SPECIAL HOSPITAL FOR REHABILITATION

To improve business efficiency of the Special Hospital for Rehabilitation 'Gamzigradska Banja' by reducing fixed costs and making better energy efficiency, certain investments, which are minimum in relation to possible profit obtained by saving of energy is required. It will be taken into consideration the fact that, out of 100% energy needed for heating the building, only 10% of energy is obtained from other sources (electric power), primarily for using medical equipment, lightning, work of computers, work of apparatus for obtaining overheated steam necessary for sterilization. If it is supposed that the rest of 90% of energy can be obtained by using one of the existing geothermal wells, it is possible to calculate the saving. Overheated steam, necessary for various purposes in the Special Hospital, is currently being obtained from fast steam generators that use heating oil as a power-generating fuel. It can be concluded that it is possible to achieve the saving of this energy substance of 100% if heating oil were exchanged by either natural gas or TNG. This is the way to achieve the following advantages: far more favourable ecologic characteristics, greater power-generating

safety, greater energy efficiency (e.g. greater exploitation). Rather favourable ecologic characteristics would result in the burning process since the products of burning of natural gas or TNG are water and carbon-dioxide. Greater power-generating safety and greater energy efficiency, directly and considerably reduce fixed and current costs for maintaining the building. Considering the move to the other energy substance which involves the burner unit, supply and storage, it is relatively simple and easily done. In the time of the ex-SFRY, some hydro-geologic investigations were carried out in Gamzigradska Banja. The Orderer was the Rehabilitation Center, the Investor was the Institute for Geologic Investigation, the designer was one of the Mining and Geologic Institutes in Serbia, while the Works Contractor was not known. It is very hard to get either the survey or the results of the investigation. The Rehabilitation Center was designed and built in accordance with the regulations proscribed for the buildings of the 1970s and 1980s. At that time people did not pay so much attention to energy efficiency, however they built buildings and structures made of concrete, with great windows, the example of which is the Rehabilitation Center itself. Its heat efficiency is really small, which means that, expressed numerically, the specific heat load is great and amounts about $q=150-200W/m^2$. Nowadays, the EU standards require the specific heat load to be less than $q=80W/m^2$ (<http://www.ursa.rs/sr-Latn-CS/vesti/Stranice/direktiva.aspx>). However, regarding the size of the structure, it is necessary to determine what exact heat load for each part of the building is (http://www.kombeg.org.rs/aktivnosti/c_tehno/Detaljnije.aspx?veza=4891). The boiler room of the Special Hospital is located outside the building; it was designed and built according to the regulations of the 1970s. The designer of that time, according to the price of energy substance, designed the boiler room which used heating oil as an energy substance. The exploitation of its boilers is 70% ($\eta=0,70$). Total heat of the ground-plan area of the Special Hospital amounts about $5800 m^2$ ($S=5800 m^2$). What is a well-known fact is that there are seven geo-thermal wells out of which the best one has abundance of $50kg/s$ with the temperature of $t = 42C^{\circ}$. At cooling this temperature for $\Delta t = 1C^{\circ}$, the enthalpy flux, or the *thermodynamic power* of the well amounts over 200 KW. The Special Hospital legally uses two geothermal wells located in its area. They are used for treatments. The temperature of one of them is $t = 42C^{\circ}$, while its abundance is artificially limited to $16kg/s$. Enthalpy flux of the mentioned well, at cooling for $\Delta t = 1C^{\circ}$ amounts over 60 KW. According to the available data, the best well in Gamzigrad Spa has the values as shown in the Table 2 (Study of energy efficiency of Gamzigrad, 2009).

Table 2: Values of the most abundant well in Gamzigrad Spa (Study on Energetic Efficiency of Gamzigrad Spa, 2009, p. 25)

Location	Q_{max} (l/s)	Temp. (C°)	MW	TJ/god.	Type
Gamzigrad Spa	20	42	2.5	79	Borehole

Paper reached to the fact that a great amount of heat energy from this well, located in the middle of the water course of the river Timok is completely lost, so that it is unused. It is, therefore, necessary to find the way or possibilities to exploit the heat energy both for spa treatment and heating and air conditioning all buildings in Gamzigrad Spa.

5. THE MOST ABUNDANT THERMAL WELL IN GAMZIGRAD - SAVING

If the data base from the Table 2 applies adequate calculation of possibilities for using the most abundant well in Gamzigradska Banja for heating, we get the following results. Taking into consideration the less favourable value of the specific heat load of $q = 180W/m^2$, as well as the maximum heated area of the building of $S = 5800m^2$, total heat load Q for the Special Hospital, with application of the formula 1.1, would be (Study of energy efficiency of Gamzigrad, 2009):

$$Q = q \cdot S$$

(1.1)

$$180W/m^2 \cdot 5800m^2 = 1044000W, \text{ that is, } 1,04 \text{ MW}$$

If the flow of water from the geothermal well is increased (it is artificially limited to 16 kg/s), to $m = 20 \text{ kg/s}$ and is cooled for $\Delta t = 16C^\circ$, the following values will be obtained by application of the formula for calculating the inside energy of a body (1.2):

$$Q = m \cdot c \cdot \Delta t$$

(1.2)

$$20kg/s \cdot 4186J/kgC^\circ \cdot 16C^\circ = 1339520W, \text{ that is, } 1,33 \text{ MW}$$

It is quite clearly that the value of the heat flux of the geothermal well ($1,33 \text{ MW}$) is greater than the value of the necessary heat flux for heating the building, amounting $1,04 \text{ MW}$. Therefore, if it is excluded ecology and heat losses, the Special Hospital has a chance to be heated by using its own geothermal well since, at the least favourable conditions and maximum losses, the thermic flux (thermodynamic power) of the examined geothermal well is greater than the greatest heat load for heating the Hospital at maximum heat losses of the building. Technical solution for such wasteful spending of energy could be found in the way to heat the clean outside air by the heat from the geothermal well on the temperature of $25C^\circ$ (depending on the outside air temperature, this value can be increased or reduced if necessary), and so heated, it could be free put into the building, and then, without heat recuperation, blown out in its surroundings. It is quite feasible since the temperature from the geothermal well ($t = 42C^\circ$) is far greater than the temperature which is needed for heating the air ($20C^\circ - 30C^\circ$) (Study of energy efficiency of Gamzigrad, 2009).

6. MINIMUM INCREASE OF ENERGY EFFICIENCY OF THE SPECIAL HOSPITAL

Since Serbia in near future is to sign the EU Stabilization and Association Agreement, it is necessary to, at the latest of the end of the year 2014, adjust its regulations to those of the EU Directives, among which there is the Directive on Energy Efficiency (http://www.kombeg.org.rs/aktivnosti/c_tehno/Detaljnije.aspx?veza=4891). It is very likely that this Directive could be the condition for Serbia to be a candidate for membership in the EU. In September 2013, the European Parliament adopted new Directive on Energy Efficiency. This one obliges the EU countries to apply certain measures aimed to save energy. One of the measures is reconstruction of public buildings, whereas large companies are obliged to carry out energy reviews every four years. It was estimated that decrease in consumption of energy for 20% would result in saving in the EU of up to 50 milliard euros per year. The Directive is also a result of a compromise and it does not contain obligatory aims for the members. A real challenge is application of new regulations regarding the investments needed to reduce consumption of energy. When new regulations come officially into effect, the EU members will be obliged to reconstruct 3% of total area on which there are state-owned buildings that 'are both heated or cooled'. This obligation is to refer to the buildings

whose usable area is greater than 500 m², whereas, from July 2015 and on, it is referred to the buildings with usable area of more than 250 m². However, the EU members can achieve energy efficiency using other ways. All large companies are, every four years, to be subjected to energy revision that is going to be carried out by independent experts. The revision is to be initiated three years beyond new regulations have come into effect. The Directive comes into effect 20 days beyond publishing in the EU Official Journal while the EU members will have the term of 18 months to make it become a part of their legislation system (<http://www.ursa.rs/sr-Latn-CS/vesti/Stranice/direktiva.aspx>). Relating to Gamzigradska Banja, to carry out adjustments with the EU standards, it is necessary to calculate increase of energy efficiency relating to heat protection of the building for nearly 100 W/m² (Milutinovi, 2011, p.68). The European standards require specific heat load to be less than 80 W/m², whereas current heat load of the building is from 150 W/m² to 200 W/m². The question is how much saving of energy substances, meaning the heat protection of the building, can be obtained if the energy efficiency is increased for only a half of necessary value, that is, $\Delta t = 50$ W/m² (Study of energy efficiency of Gamzigrad, 2009) ? Total saving of heat energy at increase of heat efficiency of the building by application of the formula 1.3 will be:

$$\Delta Q = S \cdot \Delta q \quad (1.3)$$

$$\Delta Q = 5800 m^2 \cdot 50 W / m^2$$

$$\Delta Q = 290000 W = 290 KW$$

Total time of heating in the course of one year- τ , e.g. 6 months, expressed in hours - h :

$$\tau = (6 \text{ meseći}) \cdot (30 \text{ dana}) \cdot (24 \text{ sata})$$

$$\tau = 4320 h$$

Total saved energy - $\Delta Q'$ amounts (formula 1.4):

$$\Delta Q' = \Delta Q \cdot \tau$$

$$(1.4)$$

$$\Delta Q' = 290 KW \cdot 4320 h$$

$$\Delta Q' = 1252800 KW / h$$

The heat power of the oil is the amount freed at burning of a unit of mass and is expressed in kWh/kg or MJ/kg. Upper heat power of the fuel is a theoretical value and is the same with the amount of heat that would be freed at full burning of a unit of the mass in ideal conditions and without presence of humidity in the fuel. The heat power of fluid fuels is averagely greater for about 50% in comparison to the heat power of solid fuels. Moreover, there is a possibility to transport it by pipeline, fluid fuels burn without solid deposit, and the burning process is more easily controled and automatized. Specific maximum energy value $m=1kg$ of heating oil, that is, the upper heat power of fuel (http://www.engineeringtoolbox.com/fuels-higher-calorific-values-d_169.html) amounts $e=46\,000$ KJ/kg, that is $e=12,7$ kWh/kg. If we take into consideration total exploitation of the steam boiler amounting 70%, $\eta=0,70$, then e' , or the specific maximum energy value at full capacity of the steam boiler, according to the formula 1.5, is:

$$e' = \eta' \cdot e$$

$$(1.5)$$

$$e' = 0,70 \cdot 12,7 kWh / kg$$

$$e' = 8890 kWh / kg$$

Total amount of saved heating oil – m for a year is (formula 3.6) (Study of energy efficiency of Gamzigrad, 2009):

$$m = \Delta Q / e'$$

$$m = 125800 \text{ Kwh} / 8890 \text{ Kwh} / \text{kg}$$

(1.6)

$$m = 140922 \text{ kg}$$

Total saving in fixed costs of energy substances – c for a year, if the price of heating oil is $c' = 1 \text{ €/kg}$ (formula 1.7) (Study of energy efficiency of Gamzigrad, 2009):

$$c = c' \cdot n$$

(1.7)

$$c = 1 \text{ €/kg} \cdot 140922 \text{ kg}$$

$$c = 140922 \text{ €}$$

Therefore, from the obtained results, we can conclude that at minimum increase of energy efficiency of the Hospital, the saving in Euros for a year is 140 922 €, the fact that points to the reduction of costs that should not be neglected.

7. MINIMAL USE OF RENEWABLE ENERGY FOR NEEDS OF THE HOSPITAL

The structures with great energy efficiency have specific heat load of about 60 W/m^2 . Theoretically ideal and practically unreachable specific heat load amounts 50 W/m^2 . In other words, all builders dream about building a structure with the specific heat load of 50 W/m^2 . However, the fact is that the structure from dream also needs energy to be spent on heating it. Suppose that the Special Hospital in Gamzigrad spa is such a structure with specific heat load of 50 W/m^2 . We point out that the necessary amount of heat is, according to the existing conditions, obtained from using heating oil as the only energy substance used for it. If the heating oil is replaced with geothermal energy, which is renewable and ecologically clean, it will result in significant saving of energy substance and reduction of fixed costs for supply of heating oil. To research it, the following calculations of energy saving is done: Total energetic flux, designated as Q' , for the area S amounting $S = 5800 \text{ m}^2$ and specific heat load, $q' = 50 \text{ W/m}^2$ (we use the ideal condition), according to the formula 1.1, it is the same as (Study of energy efficiency of Gamzigrad, 2009):

$$Q' = q \cdot S$$

$$Q' = 5800 \text{ m}^2 \cdot 50 \text{ W} / \text{m}^2$$

$$Q' = 290000 \text{ W} = 290 \text{ KW}$$

Total time of t heating per year is 6 months which in the number of hours is 4320. Total saved energy Q , is equal to (formula 1.4):

$$Q = Q' \cdot \tau$$

$$Q = 290 \text{ KW} \cdot 4320 \text{ h}$$

$$Q = 1252800 \text{ KWh}$$

As in previous examples for calculating total saving, at increasing minimum energy efficiency, the following values are relevant: specific maximum energy values for 1 kg ($m = 1 \text{ kg}$) of heating oil amounting $e = 46\,000 \text{ KJ/kg} = 12,7 \text{ KWh/kg}$, whereas at total exploitation of the steam boiler of $\eta = 0.70$, the specific maximum energy value e' is (formula 1.5):

$$e' = \eta' \cdot e$$

$$e' = 0.70 \cdot 12.7 \text{ KWh} / \text{kg}$$

$$e' = 8890 \text{ KWh} / \text{kg}$$

Therefore, total saved amount of energy substances for a year would be, as proved in the previous example, $m = 140\,922 \text{ kg}$, which further means previously obtained value of heating oil of $c = 140\,922 \text{ €}$

8. SAVING OF ENERGY AT RECUPERATION OF HEAT

By using the simplest and averagely efficient recuperator of heat, it is possible to get back or recuperate at least 50% of heat, out of the heat that is widespread in the surrounding area. Supposing that the Special Hospital 'Gamzigradska Banja' has theoretically ideal specific heat load of 50 W/m^2 , then the application of recuperator could save minimum of additional 25 W/m^2 . Thus, by application of recuperator of heat, it is obtained the following saving of energy substance and reduction of fixed costs for the energy substance: Total energetic flux of recuperated energy Q'' , for the area of $S = 5800 \text{ m}^2$ and specific heat flux of recuperated energy of $q'' = 25 \text{ W/m}^2$, (according to the formula 1.1) amounts as follows (Study of energy efficiency of Gamzigrad, 2009):

$$Q'' = S \cdot q''$$

$$Q'' = 5800 \text{ m}^2 \cdot 25 \text{ W} / \text{m}^2$$

$$Q'' = 145000 \text{ W} = 145 \text{ KW}$$

Since the period of time of heating τ is known and amounts $\tau = 4320 \text{ h}$, then total saved recuperated energy (according to the formula 1.4) amounts as follows:

$$Q = Q'' \cdot \tau$$

$$Q = 145 \text{ KW} \cdot 4320 \text{ h}$$

$$Q = 626400 \text{ KWh}$$

Specific maximum energetic value of heating oil at maximum use of the steam boiler is $e' = 8,890 \text{ KWh/kg}$. Total amount of saved heating oil as current energy substance for a year is (according to the formula 1.6):

$$m = Q / e'$$

$$m = 626400 \text{ KWh} / 8890 \text{ KWh} / \text{kg}$$

$$m = 70461 \text{ kg}$$

Total reduction of fixed costs for the energy substance supply, heating oil, for the period of a year, if 1kg of heating oil is 1€ ($c' = 1\text{€}/\text{kg}$), (according to the formula 1.7) amounts as follows:

$$c = c' \cdot m$$

$$c = 1 \text{ €} / \text{kg} \cdot 70461 \text{ kg}$$

$$c = 70461 \text{ €}$$

It is obvious from the previous equation that the saving of energy substance for heating, heating oil, expressed in euros, amounts about 70.000 euros for a year. Since the Special Hospital is heated every year, this saving is very profitable for a long-term period.

9. CONCLUSION

Due to many-a-year irresponsible relation to limited resources of the earth, especially in 20th century and as well at the start of 21st century, our civilization has faced cataclysmic dangers and, as a result, in the period of ferment that gradually turns into the process of search for

sustainable vision of continuation in the future (Ceramovic, 2010, p.156). Initiated by such a great threat to the survival of mankind and the whole planet, both experts from various fields and competent institutions are included in solving ecologic problems. They have considered some offered solutions of coming out of the crisis generated by the climatic changes. The solutions represent a new interpretation of the long-ago-known, and nowadays renewed, offered and affirmative model of sustainable development which is offered by the United Nations as possible and sustainable solution for the future of humankind. The future of the human civilization is found in proper management of the natural resources. Since they are classified into renewable and irrenovable resources, it is advisable to substitute irrenovable resources with renewable ones. In that way, irrenovable goods are saved and kept for future generations, while consumption of renewable energy substances reduce harmful effect on the environment. The concept of sustainable development was proclaimed by the Bergen Declaration in 1990. It initiated and pointed to the necessity of creative forms of labour and activities which include both the lowest and highest scientific, professional and administrative institutions in all fields of human activities (<http://unfccc.int/resource/ccsites/senegal/fact/fs220.htm>). Such orientation of humankind suggests reasonable effort to mark out the route leading towards sustainable future.

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INTEGRATED PROTECTION MODEL - ISO 45001 AS A FUTURE OF SAFETY AND HEALTH STANDARDS

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ABSTRACT

Along with the increase in awareness of the importance of human resources and their contribution to the value of the organization, there is a growing awareness of the need for their management. The fact that modern society prescribes by the law that organizations must identify dangers and hazards, risk level that may arise, as well as their management and implementation of consistent measures to reduce their impact, shows the importance that is attributed to this issue.

For the effective implementation of laws in the field of health and safety at work and other necessary protective measures, there has been a need for a systematic approach to management in this area. Systematic approach to management in the field of health and safety at work ensures the implementation of all measures necessary for the safe operation thus protecting both employees and organization. This systematic approach is reflected in the current standard OHSAS 18001, which aims to establish control over the risks that carry harmful potentials, and thus ensuring the continuity of operation of the organization.

The focus of the scientific community which is actively working on improving the existing standards in the field of safety and health of employees is focused on the upcoming standard that will replace OHSAS 18001. The upcoming standard places a greater emphasis on the risk management and the ongoing assessment of risks and opportunities to prevent or reduce side effects. The innovations in this standard are reflected in the strengthening of the role of top management and top management as well as in the context of the "organization" itself. ISO 45001 provides for active participation of management in all processes of health and safety at work and tends to reduce the usage of process of delegated responsibility to one manager, while, on the other hand, the organization looks at the broader, i.e., the requirements of the wider community are taken into account.

Keywords: *ISO 45001, OHSAS 18001, Risk management, Top management*

1. INTRODUCTION

Throughout the history of development of the society, work represents one of the most important human needs. Along with the change of human needs, expanding of knowledge, improvement of equipment for work, the nature of work has been changing as well. Although the injuries at work accompanied the work process from the very beginning, much later it became obvious that injuries at work were not just accidents, i.e. the inevitability of the working process, but that those situations, events and processes could be controlled in order to avoid various accidents (occupational injuries, damage to the property and endangering the working environment and so on). Since then, through various initiatives and organizations, the various theories of management of work processes have been created which then have been used as a source of formation of social agreements, non-binding and binding international directives, guidelines and conventions. The process of globalization of the modern era has

contributed to implementation of such generally recognized conclusions to be implemented in national legislation and to put safety at work aside as a study subject of a new multi-disciplinary science. Intense international activities of the scientific community on improvement of working conditions lead to gradual standardizing of safe working conditions, access to the organization of occupational safety and measuring the effects of these processes.

2. SAFETY AT WORK

Safety at work is the subject of many sciences, and very often this area is put in the outstanding social context when defining it, i.e. its different aspects are claimed: legal, economic, organizational, psychophysiological, technical, sociological, medical, etc. From that point of view the definition of safety at work, which includes three basic components in it, has arisen:

1. "Occupational safety represents those activities, measures and means that are aimed at achieving safe working conditions.
2. Safe working conditions can be achieved only by using modern technical, social, health, and repression, economic, educational, and organizational and other measures that affect the creation of a safe working environment.
3. All measures must have a preventive character and be directed to the prevention and elimination of the causes of injuries and damage to the workers." (Živkovic, 2007)

Further elaboration and explanation of the concept of safety at work were presented in the Law on Safety and Health at Work ("Official Gazette of RS", No. 101/05). By the adoption of this law, the concept "occupational safety" is transformed into the concept of "safety and health at work", which was later implemented through all bylaws. Pursuant to the provisions of this law, health and safety at work is defined as the provision of such working conditions which, to the greatest extent possible, reduce injuries, occupational diseases and diseases related to work and which mainly create conditions for full physical, mental and social well-being of the employees.

From the above said it can be concluded that there is no single definition of the concept "health and safety at work" and that, depending on the context it refers to, it may conveniently be defined. Particular definition depending on the topic explored contributes specifying the target topic and inappropriate interpretation is being reduces to a minimum.

2.1. Development of health and safety at work

There are some very early records of deliberations and considerations of questions of safety at work and recorded accidents at work, but it can be said that the first real researches and defined rules for safe and healthy work were present not earlier than the 19th century, at the time of the peak of industrialization. The first rules in the field of safety and health at work occurred in work areas where conditions were the worst, such as mining, chimney sweeping works, textile, etc. One such example was recorded in 1788 in England, where the law on prohibition of children employment for chimney sweeping operations with respect to all present dangers and hazards in these tasks was passed (Nikolić et al., 1977).

As social movements became more powerful (including trade unions), the social nature of health and safety at work become stronger on the other hand. In other words, in addition to economic the humanitarian nature of health and safety at work was emphasized. While economic character stemmed from the calculated losses because of the absence due to injuries, occupational diseases and diseases related to work, the humanity of work process came to the focus of interests only as a part of strong social reforms based on empowerment of social rights and as an immediate opposite side it had different associations of employers.

Such an interaction of social forces is particularly actual and institutionalized today through social and economic councils and similar bodies.

All this contributed to the fact that the safety and health at work have become one of the criteria of order and progress of society - where safety and health at work are more strongly integrated into the social processes, one can expect a better quality of life.

Today, health and safety at work is one of the basic human rights enshrined in all basic international documents and national legislation, and it is studied in a large number of higher education institutions.

2.2. Legal regulation of health and safety at work

In the context of the legal regulation of health and safety at work, we can talk about international and national regulations.

Basic documents of the International Labor Organization (ILO) and the European Union that regulate the field of health and safety at work are made of the following conventions and directives: Convention no. 155 on occupational safety and health and the working environment (in our country ratified in 1987), the Convention no. 161 on Occupational Health Services (ratified in 1989), the Convention no. 81 on inspection in industry and commerce (ratified in 1956), the Convention no. 135 on workers' representatives (ratified in 1981), as well as the general directive no. 391/89 EEC on the introduction of measures to encourage improvements in the safety and health at work (Ivanjac, Luković, Mišljenović, 2006). The whole system of technical standards established by the International Organization for Standardization, and directives, guidelines and standards of the European Union should be also added.

The basis of safety and health at work in the Republic of Serbia are given in the Constitution of the Republic of Serbia, and more closely defined and edited by the following laws: the Law on Labor, Law on Safety and Health at Work, the Law on Fire Protection, the Law on emergency situations. The enumerated laws are accompanied by numerous bylaws and technical regulations and standards. The common feature to all laws is the obligation of the employer to provide safe working conditions and that this obligation cannot be transferred to somebody else.

3. INTERACTION OF OCCUPATIONAL SAFETY AND ENVIRONMENT

3.1. Systemic dependence of health and safety at work and environmental protection

Through careful reading of the legal definition that workplace is the “space intended for performing with the employer (indoors or outdoors, as well as on temporary or mobile construction sites, facilities, equipment, means of transport, etc.) in which the employee resides or has access to the course work and which is under direct or indirect control of the employer”, and that the “working environment is the space in which the work is performed and which includes working places, working conditions, working procedures and relationships in the work process” (“Official Gazette of RS”, No. 101/05), one can clearly observe certain common components of working environment, where the environment is the “set of natural and created values which complex interrelationships make the environment, the area and the living conditions” (“Official Gazette of RS”, No. 135/04, 36/09, 36/09, 72/09).

In the modern definition of process management, health and safety at work and environmental protection cannot be regarded as independent parallel processes that take place within an organization, but as mutually dependent activities. As an example of this connection the presence of material waste in the process of work during the technological process procedure first and then working environment may be mentioned. The discharge of waste material can

be controlled and uncontrolled, both in the work and in the living environment, and both environments can have a mutual negative influence. The same would be true for example of waste energy from the process (Anđelković, Krstić, 2002).

The model of integrated management system - ISO 9001, ISO 14001 and OHSAS 18001, which is very common in modern organizations, displays the practical confirmation of interdependency. In fact, common processes, as well as the benefit based on joint management of these processes have been recognized (Ristić, 2011).

3.2. An integrated system of management and health and safety at work

As already mentioned, the most common form of integration management system is based on three standards: ISO 9001, ISO 14001 and OHSAS 18001. ISO 9001 is a system of quality management, ISO 14001 specifies requirements for environmental management, while OHSAS 18001 is a standard that defines management system requirements, safety and health at work.

The aim of OHSAS 18001 standard is to establish control over the risks, i.e. all known risks and hazards, and therefore ensure the smooth operation of the organization. The standard has been developed based on the ISO 14001 standard and is very suitable for smooth integration with ISO 9001 and ISO 14001. As well as ISO 14001, it is based on the PDCA (Eng. Plan-Do-Check-Act) analysis popularized by Edward Deming (Uzunović, 2001). Model OHSAS 18001 of management system for safety and health at work includes the following:

- Policy of safety and health at work;
- Planning;
- The implementation and application;
- Checking and corrective actions;
- Management review (SRPS OHSAS 18001: 2008).

The reasons for the integration are as follows:

- The common elements of management systems over quality, environment and safety and health at work;
- A simplified management system of all processes in the organization;
- Improved utilization of resources;
- Improved operations of the organization as a whole;
- Incorporating the objectives of all standards in a single policy and business strategy;
- Continuous improvement of the organization includes all equally standardized / established processes (Ristić, 2011).

In practice, the most common are the following three models of integration (formation) of a single management system:

- The sequential model (this model, maybe the most used in practice, integrates standards in the following order: ISO 9001, ISO 14001 and OHSAS 18001, and later the relevant standards pursuant to specificities of organization - ISO 22000 for food safety ISO / IEC 27001: 2013 for information safety, etc.);
- The parallel model (simultaneous establishment of all three standards);
- The combined model (in this model, ISO 9001 makes already integrated basis on which ISO 14001 and OHSAS 18001 are simultaneously added, as well as the relevant standards according to the specificities of the organization) (Krstić, Stojiljković, Kusalo, Stojiljković, 2011).

On the other hand, this approach may have adverse effects that are reflected in the following:

- High level of engagement;
- Long-term process;
- The various requirements of stakeholders;
- Lack of motivation;
- Lack of time;
- The uncertainty in the value of an integrated management system;
- High costs of certification;
- Duplication of effort between the external and internal audits (Živković, 2012).

For the process of integration itself publicly available publication PAS 99: 2012 - Specification of common requirements for the management system as a framework for the integration issued by the British Standards Institute is very useful. This publication has been intended to be a guide for integrated introduction of two or more management systems standards. It brings together the common requirements in standards such as ISO 9001, ISO 14001, ISO / IEC 27001, ISO 22000, ISO / IEC 20000 and / or OHSAS 18001 and establishes the processes of integration.

According to official data, in the Republic of Serbia in 2009 and 2010, the largest number of organizations established two management systems, and then the organizations with 3, 4 and 5 of the management systems come. Percentage increase in other management system are: HACCP (77.61%), ISO 14001 (61.14%), ISO 18001 (37.03%), ISO 22000 (4.00%) (Rajković, 2010).

4. EXAMPLES OF ORGANIZATIONAL MANAGEMENT STRUCTURE OF HEALTH AND SAFETY AT WORK IN REPUBLIC SERBIA

4.1. Safety and Health at Work as a separate process in the organization

In Republic of Serbia, pursuant to articles of the Law on Safety and Health at Work, the organization of safety and health at work is entrusted to the employer, i.e., the organization itself decides on the implementation process of health and safety at work taking into account the following:

- Technological process;
- Organization, the nature and extent of the work process;
- Number of employees and the number of working places;
- Nature of assessed risks;
- Spatial distribution of working places and allocated work units;
- Type of the activity.

Law on Safety and Health at Work does not define the necessary qualifications of a person for safety and health at work, but only the obligation that the person has passed the examination in accordance with the law. Also, it does not define either the number of required people for health and safety at work, depending on the above factors, but this decision is left to the employer (e.g. an organization with 30 business units across the country, according to the interpretation of the law, can only have one professionally trained person for Safety and Health at Work).

However, if the employer makes such an estimation, for conducting safety and health at work it may engage an external organization that is licensed to perform activities of safety and health at work by the competent ministry or the Agency for Safety and Health at Work.

Selected licensed organization shall appoint one or more persons to perform activities of safety and health at work with a client. Also, activities of work safety and health at work may be performed by the employer alone in the activities of trade, catering and tourism, craft and personal services, financial, technical and business services, education, science and information, health and social care in residential and public utilities, if has up to ten employees and is not required to have passed the certification exam. Thus, by the Law an employer has three defined options for organizing safety and health at work:

- Self-handling activities and health at work;
- The person or persons for Safety and Health at Work with professional exam who are from among the employees;
- The engagement of an external licensed organization.

Of course, the employer can always combine the offered models of organization, and the options include involvement of occupational medicine with an aim to protect the health of employees. It is important to emphasize that the legislation process of health and safety at work separately from other relevant areas leaves the employer possibility to assess the necessity of implementing measures for fire protection, environmental protection, emergency response and related processes in the area of health and safety at work . With respect to this, the following models can be distinguished:

- A centralized management model;
- Department for Safety and Health at Work;
- A decentralized management model.

A centralized management model implies the appointment of a person for health and safety at work (he/she could be from an external organizations) and entrusting the further organization of the activities of safety and health at work to this person. The quality and efficiency of the process of health and safety at work largely depends on the individual characteristics of the appointed person for Safety and Health at Work.

Department for Safety and Health at Work represents, in terms of organization, is also a centralized management system, with the sole difference that within a micro-organization distribution of activities and work duties have been made. Department for Safety and Health at Work usually performs the tasks of fire protection and emergency response. The system, to a lesser extent, still relies on the individual characteristics of the person for Safety and Health at Work.

A decentralized management model implies the acceptance and implementation of standardized processes through OHSAS 18001 standard, its further development, but also development of its own model of safety and health at work management with respect to the basic principles of OHSAS 18001. The analysis of such a model can be made on the basis of the publication of the US Occupational Safety and Health Agency relating to the management of safety and health at work in the Agency itself. A simplified view of three basic elements of the model safety and health at work management is given in Figure 1.

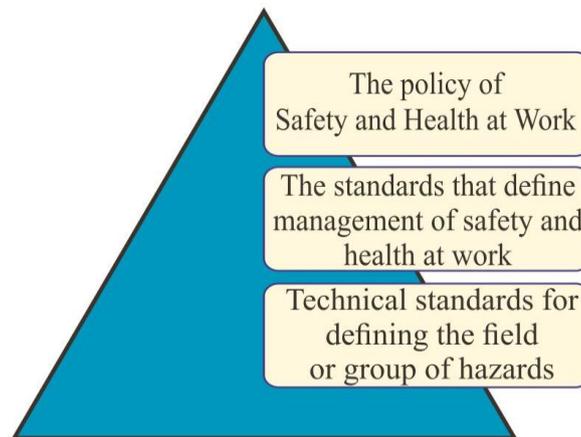


Figure 1 The basic elements of the model of safety and health at work management (own source)

The policy of Safety and Health at Work defines the basic goals and principles of the organization which it strives to, and which will be applied in everyday functioning. The standards that define the way of managing safety and health at work should depict better the real needs and the nature of the work process in the organization and thus in the most peculiar way define the core management processes, and in particular the following ones:

- Participation of the management;
- The method of promotion and motivation for safe and healthy work;
- The process of risk assessment in the workplace and working environment;
- Health management at work - participation of occupational medicine;
- Incidents management;
- Definition of preventive and corrective measures;
- Managing the third parties (contractors, stakeholders, etc.);
- Managing changes in an organization.

Technical standards for defined areas, i.e., groups of hazards, represent some sort of plan for preventive security measures for safe and healthy work. This group of technical standards can be very different depending on the activities of that organization, but it will certainly include the following elements, i.e., defined measures for safe and healthy work:

- Work equipment (machines, devices, equipment, tools, aids, etc.).
- Electricity and lightning;
- Fire Protection;
- Emergency management;
- Equipment for screen operation;
- Work in the office;
- Industrial hygiene (physical, chemical and biological hazards);
- Pedestrian and work surfaces;
- Providing first aid.

Additional elements, depending on the activities of the organization, can be:

- Work at height;
- Work in a limited (confined) space;
- Noise in the workplace;

- The internal transport;
- Ionizing radiation;
- Hazardous substances;
- The loading and unloading of cargo.

The system functions in that way that a standard of management is applied to each technical standard. With such a default organization, there is a distribution of duties, i.e., employees from different hierarchical positions and qualifications receive adequate training, authorization and obligation to implement a certain standard throughout the organization. In this way, a larger number of employees shall be included in the definition of preventive measures, thus increasing the awareness of the importance of health and safety at work at the level of the whole organization. The so-called “The owners of the standards” are typically chosen based on qualifications and their previous experience. E.g. “The owner of the standard” for participation of management may be a director, management of third parties can be done by the authorized person from the Human Resource or by the project manager if they engage contractors; the same key can be applied to technical standards – “the owner of standards” for electricity can be the head of maintenance department, for organizing first aid it can be a person who has already had an education in that field and so on. In this system, the function of the person of the safety and health at work turns into a control (managerial) position that provides the following components:

- Setting the systems of safety and health at work;
- Setting the applicable standards;
- Selection of people of the future “the owners of the standards”;
- Training and other professional assistance;
- Monitoring system;
- Measures for continuous improvement.

In accordance with a defined structure, the “owners” themselves and sectors cooperate interactively in the field of health and safety at work, and therefore some employees are being encouraged and authorized as leaders of some of the processes thus increasing the motivation for the implementation of the process, in this case, safety and health at work. As motivation in this process is present, the motives of pleasure and benefits are present, too (Živković, 2007).

4.2. An integrated model of health and safety at work and environmental protection

The connection of working and living environment, both in their conceptual definition and the management of the integration process has been earlier pointed to. Also, it has been stated that the identification and integration process of the environment in the process of health and safety at work depend on the assessment of the employer or organization. In respect to this, following options of relation of health and safety at work and environmental protection can be differentiated:

- Special, independent flows;
- The centralized model in two forms:
 - Person for Safety and Health at Work and the Environment Protection (OHS manager or EP MANAGER);
 - Service for Safety and Health at Work and the Environment (Department of OHS and EP);
- Decentralized system.

The special, independent flows imply that the organization has a manager to manage the processes of health and safety at work and a manager to manage the processes of environmental protection.

Centralized management model involves the appointment of a person responsible for health and safety at work and environmental protection (this person may be from external organizations) and entrusting further organization of safety and health at work and environmental protection to that person. Department for Safety and Health at Work and the Environment represents, in terms of organization, also a centralized management model with the difference that within a micro-organization distribution of work duties has been made. The department usually performs the tasks of fire protection and emergency response.

A decentralized management model implies the acceptance and implementation of standardized processes through standard OHSAS 18001 and ISO 14001, and its further development, but also development of its own model of management the safety and health at work and environmental protection according to the basic principles of OHSAS 18001 and ISO 14001. As an illustration of such a system, the already presented an example of decentralized management safety and health at work can be upgraded (Figure 2).



Figure 2 Basic elements of the management model of safety and health at work and environmental protection (own source)

Integration of ISO 14001, i.e., environmental protection, leads to the following organizational changes:

- The EP policy joins the OHS policy thus forming a unique OHS and EP Policy;
- Control standards are expanding their range of application to the environmental protection as well, and new categories (objectives, monitoring, definitions of incidents and accidents, etc.) are being introduced;
- Technical standards are divided into three groups and a new appointment, “the owner of standards” are being made.

Grouping of standards common for safety and health at work and environmental protection depends on the activities of the organization, and examples of these common elements are:

- Industrial hygiene (physical, chemical and biological hazards);
- Noise;
- Hazardous substances;
- Ionizing Radiation.

Grouping of environmental standards, depending on the activity of organization and pursuant to the existing Law on Environmental Protection (“Official Gazette of RS”, No. 135/04, 36/09, 36/09, 72/09), can be made of the following standards:

- Air quality;
- The quality of water;
- The soil quality;
- Management of hazardous and non-hazardous waste;
- Management of chemicals.

And this decentralized system promotes the responsible people for Safety and Health at Work and the people responsible for environmental protection into the control (management) function. The system leaves the option that the organization has a manager for Safety and Health at Work and a manager for environmental protection or that both processes are managed by one manager.

5. EMERGING STANDARD - ISO 45001

In October 2013 International Organization for Standardization established a committee ISO / PC 283 to create a new standard for the management of safety and health at work, ISO 45001, which will replace the existing OHSAS 18001. The adoption of the new standard is expected in the second half of 2016, and for now only contents of standards is available, and it is the proposal phase. The very structure of the standard will be in accordance with Annex SL directive which governs the development of ISO standards.

5.1. News in ISO 45001 standard

The aim of the standard remains the same: to set requirements for management systems of protection and safety of employees, and thus to help organizations ensure the health and safety of people who work for them. However, the fact that the standards will follow the structure of ISO 9001:2015 and ISO 14001:2015 indicates that a stronger focus will be on the context of the organization. The concept of the context requires organizations to look beyond health and safety within their own facilities and to take into account the working conditions in the supply chain. Other change that can be expected is a stronger role for top management. Health and safety will become central aspects of the overall management system, which requires a firm commitment of top management. The integration of management systems of protection and safety of employees in general management system will be facilitated by the fact that ISO 45001 adopts the same structure as ISO 9001 and ISO 14001.

5.2. Why ISO 45001?

Analyzing the devastating statistics on the number of accidents related to health and safety at work, according to which 2.2 million workers globally lose their lives each year due to occupational accidents and diseases related to work, while in the US over 4.1 million workers suffer serious illness or injury each year (US Department of Labor Report 2013), where in the UK 26.4 million working days are lost due to illness related to labor and occupational injuries (UK Health & Safety Executive Report 2010/11), the loss of 4% of the world's gross domestic product due to occupational injuries and diseases (Global and Asian trends for Safety and Health at Work 2006), where 6,300 workers die every day due to the consequences of occupational injuries and illnesses related to work (ILO statistics), there is an urgent need for organizations around the world to improve their management systems of protection and safety of employees - and this need will only grow in the future. By further globalization, more and

more consumers and customers expect that organizations put greater emphasis on ethics in every aspect of its operations, including the way they treat their employees.

By the implementation of future international standards, small, medium and large organizations in any field of business can set a benchmark for their safety and health management, policy and practice in different geographical areas, countries, cultures and jurisdictions. This will promote better communication on common issues, principles and best practices in global trade. This standard will allow companies to comply with regulatory requirements, including responsibilities, specifications and ethical corporate governance and auditing practices.

After the implementation of a standardized framework, companies can align their operations with national and international legislation and codes of conduct - improving risk management and planning for emergencies. ISO 45001 will also allow organizations to set up and evaluate measures for service providers. As a result, companies will be able to reduce the number of accidents in relation to health and safety at work and related costs, at the same time promoting the welfare of its employees and its environment.

6. CONCLUSION

Safety and health at work has come a long historical way from the process of the very recognition of the importance of health and safety at work to formation of different models of managing safety and health at work. Models of managing safety and health at work ranges from strictly centralized to decentralized basis in the model. Comparing the basic processes of recognized management models and taking into account the definition of the concept of "health and safety at work" far greater advantage of decentralized management systems can be emphasized. The reason lie in the fact that the mere setting of such a system promotes a large number of leaders in certain systems and processes at different hierarchical levels of organization (from top management to employees in the "front line"). Thus organization publicly demonstrates confidence in its employees, encouraging them to continue professional development, but also strengthens the motivation for the implementation of safety and health at work, and therefore the application of preventive measures for safe and healthy work at the workplace and working environment.

Taking into account the fact that the commitment of employees is one of the main aspects of the upcoming international standard for the management of safety and health at work, thus decentralized management system receives an international recognition, created the conditions for such management models to enter our legislation as an obligation for all organizations . It is expected that the introduction of the new standards will contribute to greater participation of top management in the health and safety at work, and therefore the greater participation of employees, both in the application of the prescribed measures for safe and healthy work, as well as active contribution to defining these measures.

Future standard for managing safety and health at work will support the new management systems to ensure better compatibility and system management, which will make the application within the organization much easier. ISO 45001 will also have a direct impact on society. With more established international system of protection of health and safety at work, the number of incidents and accidents will be reduced with the least possible disruption of operational processes. This means a smaller number of urgently needed treatments in the workplace and in hospitals and reduced long-term care for those who are unable to return to work after the accident. ISO 45001 will undoubtedly mark the beginning of the global changes in the field of health and safety at work.

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THE IMPACT OF PRICE REDUCTION ON BEHAVIORAL RESPONSES OF CONSUMERS

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ABSTRACT

The objective of this paper is to determine a course and intensity of the impact of price reduction of food products onto behavioral responses of consumers. The following responses such as brand loyalty, brand switching, purchase acceleration, stockpiling and product trial have been analyzed in this paper. The recession in economy that has been present over the course of several years now has had a significant impact on the behavior of consumers in a way that consumers are buying more products at sales, thus according to the research results of certain authors, retailers have used price sales as the most popular and the most often stimulating instrument of short term demand, and it has seen an increase ever since.

Following the analysis of scientific literature that has covered this particular subject matter, three hypothesis about the impact of socio-demographic characteristics of examinees onto their attitudes regarding the impact of price reduction onto behavioral responses of consumers, have been defined. An empirical research has been carried out aimed at testing hypotheses set over the sample of 100 consumers. Data and figures have been collected through a survey at a point of sale i.e. applying MALL-INTERCEPT concept.

It has been determined that attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers – brand switching, brand loyalty, purchase acceleration, stockpiling and product trial - do not significantly depend on the gender of examinees. Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers - brand loyalty, brand switching, purchase acceleration and stock piling - depend on the age of examinees, but that is not the case with product trial. Further, attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers - brand switching and brand loyalty - depend on the income of examinees, but at the same time mentioned attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers - purchase acceleration, stockpiling and product trial- do not depend on the income of examinees.

These findings may be of certain use to scientists, managers working in either sales, sale promotion or market research, etc..

Keywords: *behavioral responses, consumers, price reduction, purchase*

1. INTRODUCTION

Companies spend enormous financial means on promotional activities in order to motivate buyers to purchase their products. This paper will examine the impact of price reduction, as one of sales promotion techniques onto behavioral responses of consumers. It is important to emphasize that research show that price reductions mostly and sometimes even exclusively impact consumer responses. (Gilbert and Jackaria, 2002, p. 315, Alvarez and Casielles, 2005, p. 1, Shi, Cheung and Prendergast, 2005, p. 476). The recession in economy, that has been present over the course of several years, certainly impacts the behavior of consumers, in a way

that they are buying more and more products during price reductions, in such a manner realizing maximum benefit for spent money. According to Kesić (2003, p. 398) price reduction, as a sales promotion technique, is focused directly on consumers, and therefore it represents reduction of basic product price. Shi, Cheung and Prendergast (2005, p. 470) define price reduction as temporary reduction of product price. Price reduction is usually time determined and limited. Time limitation of price reduction serves as additional motive, i.e. stimulation, which should motivate consumers to, as soon as possible, reach a decision about the purchase of products. Retailers, once applying price reductions as a sales promotion techniques, are mostly guided by logic according to which sale is bigger and faster as percentage of price reduction for each product is higher, therefore it is not surprising that retailers use these techniques more and more often.

Behavioral responses of consumers (conative attitude component) represent possibility or tendency that an individual will conduct a certain action or that it will behave in a certain way depending on the object of an attitude, and that means that conative component is often treated as an expression of consumers purchasing intention (Schiffman and Kanuk, 2004, p. 205). In this research emphasize is on following consumer responses: brand loyalty, brand switching, purchase of products before it was even planned (purchase acceleration), purchase of bigger quantity of the same product (stockpiling), purchase of product that has not been tried before (product trial).

This paper is deepening current knowledge about this subject matter. Research was conducted on the market of Bosnia and Herzegovina where this topic has not yet been approached in a sufficient manner.

Main objective of this paper is to determine the course and intensity of the impact of price reduction onto behavioral responses of consumers: brand switching, brand loyalty, purchase acceleration, stockpiling and product trial. For that purpose, data is gathered by conducting a survey at a point of sale. Conducted researches tested three hypotheses.

This paper has five sections. After the introduction, the second section shows reference material and it analyses current scientific knowledge about the subject matter based on which research hypotheses have been defined. Method of research is shown in the third section. Research results together with tested hypotheses are shown in the fourth section, while the paper ends with a conclusion in the fifth section, where research findings and implications of research are emphasized and commented, and where it is indicated what were the restrictions of conducted research and where the guide lines are given for some future researches.

2. CONCEPTUAL FRAME AND LIST OF REFERENCE MATERIAL

In this paper, subject of the research is the impact of price reduction in general onto behavioral responses of consumers, but, for purpose of better understanding of this subject matter, it is important to emphasize that nowadays consumers are faced with different types of price reductions: catalogue price reductions, weekly price reductions, price reductions for retired people etc. While indicating the significance of researches about price reductions onto behavioral responses of consumers, beforehand it was mentioned that some researches show that price reductions mostly and sometimes even exclusively impact the behavior of consumers. Further, (Darke and Chung, 2005; referenced by Rajh E. and Rajh, S.P., 2006, p. 349) indicate that exactly price reduction applied by retailers is the most popular and most used instrument for stimulation of short term demand and that usage of mentioned instrument is increasing every year. Schiffman and Kanuk (2004, p. 205) treat behavioral responses of consumers, which are the subject of this paper, as reflection of purchasing intention of consumers. This paper will examine consumer responses: brand loyalty, brand switching, purchase acceleration, stockpiling and product trial, and these responses were chosen because

of the fact that they were mostly researched consumer responses according to the authors listed after in text.

Obeid (2014, p. 28) emphasizes the key role of price reduction for stimulation of behavioral responses of consumers in a form of brand switching, purchase acceleration and additional consumption. Gilbert and Jackaria (2002, p. 315) quote that price reduction effectively impacts consumer responses during shopping and this impact becomes clear throughout early shopping and new product trial. Further, Shi, Cheung and Prendergast (2005, p. 467) in their researches suggest that price reductions are more effective in encouraging faster shopping, stockpiling and bigger consumption while they are less effective in encouraging consumers to new product trial and brand switching. Hoek and Roelants (1991, p.1-2) investigated the impact of price reductions on brand switching, purchased quantities and time of purchase, suggesting that price reductions only temporarily provoke brand switching i.e. that consumers after a certain period of time return to their initial choice of products. Similar to that, Rajh, S. P. and Rajh, E., (2006, p. 349) quote that price reductions are useful only as a short term stimulant and that in a long term these activities damage companies by creating worse consumer perception regarding quality of products, which at the same time decreases consumers purchasing intention, while (Darke and Chung, 2005; referenced by Činjarević, 2009, p. 193) quote that price reductions are most often used instruments for stimulation of demand and that they result in an increase of consumers perception of value and consumers purchasing intentions, but on the other hand, in a long term, they decrease consumers perception regarding product quality and it is assumed that mentioned has negative effect on purchasing intentions pertaining to a certain product. Swamy and Yoo (2010, p. 143) point out a fact that price reductions do not have unambiguous impact on the intention to choose a product brand, i.e. on the purchase of certain product and that this impact is different depending on price level of certain brand and that for more expensive brands price reductions have negative results on behavioral (purchasing) intentions, while for less expensive brands price reductions have positive effects on behavioral intentions. Results of the study conducted by Vilcassim and Jain (1991, p. 39) indicate that price reductions have bigger impact on the percentage of brand switching than on the percentage of repeated purchase. L. Teunter and R. Teunter (2004, p. 9) explain that consumers are very much aware of the effect of stockpiling (without the actual need) caused by a significant price reductions, and therefore, as promotions (sales) are more frequent, price reductions should be bigger in order for the consumer to realize a benefit from purchasing an additional product unit. Čaušević (2007, p. 37) while researching activities of sales promotion on a sample of a several Bosnia and Herzegovina trading companies, came to a conclusion that price reductions are most used activities on the market of final consumption with the main goal of keeping existing consumers by stimulating them to repeat their purchase, but also and by stimulating consumers to make their first purchase. Guo and Villas-Boas (2007, p. 827) emphasize that consumers adjust their responses depending on expected dynamic of price change in a way that they can accelerate their purchase of a certain product and create a stock of products while the prices are low in order to use them in the future i.e. during the period when the prices are higher. Luxton, Sharp and Corkindale (1998, p. 1302) with their research conducted on the market of Australia determined that 51% of managers in their companies have tendency to use price reductions as promotional activities, in which case price reductions motivate brand switching, initiate product trial, serve as reward for loyalty etc. Ruiz and Descals (2007, p. 494) in their researches focus on temporary price reductions and confirm that temporary price reductions increase the sale of brands which are on sale, especially during weekends. Some brands realize sale by impacting brand switching in the same subcategory of products, but also and by brand switching of competitive items from other

categories which are a bit different in structure and taste. Zhang, Seetharaman and Narasihman (2012, p. 88) researched the impact of price reductions on purchasing decision in a household bearing in mind and price expectations in the future, and they came to a conclusion that once consumers detect price reductions of certain brand in a current time period, they will expect that also and in the future prices will be low which will result in lower attraction in regard of current price reductions or on the other hand they will expect higher prices in the future and current price reductions will be attractive for them and stimulating in regard of purchase i.e. purchase acceleration. Neslin, Henderson and Quelch (1985, p. 160) emphasize that promotions (sales) result in bigger quantity of purchased products but they especially mention that advertised price reductions cause the following purchase to be made faster i.e. they result in shorter time period between two shopping. Sahay and Sharma (2010, p. 28) point out that the extent of price change plays significant role in consumers responses during shopping while bigger reductions result in brand switching. Ndubisi (2005, p. 41) points out a significant role of price reductions in a frame of their impact on consumers regarding new product trial. Krishna, Currim and Shoemaker (1991, p. 4) suggest that consumer responses regarding product brand and purchased quantities depend on expected time period until the following price reduction, but also and on expected extend of price reduction. If consumers perceive a brand as one that is often on sale, then they will not feel the need for stockpiling i.e. their next shopping will not happen earlier than it was initially planned. Frequent sales (promotions) of their favorite product brands often can result in consumers disregard for those sales and provoke consumers to in the future prefer other brands, which will even reflect on their purchasing intentions regarding mentioned product brand.

Based on the analyses of reference material, following hypotheses are being determined:

H1. Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers (brand switching, brand loyalty, purchase acceleration, stockpiling and product trial) depend on the gender of examinees.

H2. Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers (brand switching, brand loyalty, purchase acceleration, stockpiling and product trial) depend on the age of examinees.

H3. Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers (brand switching, brand loyalty, purchase acceleration, stockpiling and product trial) depend on the income of examinees.

3. RESEARCH METHODOLOGY

In making theoretical section of this research, secondary source of data will be used (desk research) gathering existing information, data and knowledge from relevant literature. Empirical research had been conducted on a sample of 100 consumers and data has been gathered in the field. Research was focused on consumers of food products in one shop of a bigger format (hypermarket) in the city of Mostar. Applied sample has characteristics of natural sample since consumers chosen for this sample were the ones available at the shop during data gathering in a way that they were present at a shop during mentioned time period. Investigating instrument consists of a group of statements and examinees were asked to express the intensity of their agreement or disagreement with offered statements. In conducting investigation, Likert scale of five points of intensity was applied (1-I do not agree at all, up to 5-I completely agree). In forming a sample, gender and age structure was taken into account as well as equal representation according to an average monthly income.¹⁸ Data

¹⁸ Sample consists of 43% of male and 57% of female population, the percentage of consumers up to the age of 30 was 14%, from 31 to 40 was 20%, from 41 to 50 was 25%, from 51 to 60 was 23% and over 60 was 18%.

was gathered by interviewing at a point of sale i.e. by applying MALL-INTERCEPT concept.¹⁹ Popularity of this investigating method increases as a result of: low costs of conduction, it approaches large number of people, it provides large quantity of return answers (feedback) and it provides instantaneous results of investigation. Research statements were:

T1: Price reduction will enable me to purchase brand/product which I do not usually purchase;

T2: I usually purchase the same brand/product, even when the other brand/product is on sale;

T3: Price reduction enables me to purchase product even earlier than initially planned;

T4: Price reduction enables me to purchase bigger quantities of the same product;

T5: Price reduction enables me to purchase product that I never tested before;

Software tools such as MS Excel (Office 2007 version, Microsoft Corporation, Redmont, WA, SAD) and SPSS for Windows (17.0 version, SPSS Inc. Chicago, Illinois, SAD) have been used to process collected data and information. Arithmetic Means (M) and Standard Deviation (SD) have been applied to calculate data. However, both t-test for independent samples as well as ANOVA along with post hoc tests have been used in order to conduct testing over the significance of difference in average estimation of certain thesis with regard to sample characteristics. A significance level of testing equals to $p=0,05$ (5%) i.e. a conclusion has been made with 95% certainty. P values that could not have been expressed with three decimal places have been shown as $<0,001$.

4. RESEARCH RESULTS

Characteristics of examinees are shown in Table 1.

Table 1: Sample characteristics

Characteristics		f	%
Gender	Female	57	57,0%
	Male	43	43,0%
Age	≤ 30	14	14,0%
	31 - 40	20	20,0%
	41 - 50	25	25,0%
	51 - 60	23	23,0%
	> 60	18	18,0%
Income	≤ 500 KM	17	17,0%
	501 - 1000 KM	36	36,0%
	1001 - 1500 KM	28	28,0%
	1501 - 2000 KM	12	12,0%
	> 2000 KM	7	7,0%

while at the same time percentage of consumers with income up to 500 KM was 17%, from 501 to 1000 KM was 36%, from 1001 to 1500 KM was 28%, from 1501 to 2000 KM was 12% and with an income over 2000 KM was 7%.

¹⁹ Investigating using this method means that respondents are intercepted in shopping in malls and they are being interviewed i.e. they are asked to answer certain questions or statements.

Means of statements for the overall sample has been displayed in Table 2.

Table 2: Means of statements for the overall sample

Statements	M	SD	Min	Max
T1	3,28	1,036	1	5
T2	3,40	0,888	2	5
T3	3,96	0,898	1	5
T4	3,98	0,995	1	5
T5	2,70	0,859	2	5

Results of the research displayed in Table 2. show that majority of participants (consumers) claims that price reduction most times provides them to purchase bigger quantities of the same product thus encouraging them to buy product before planning. At the same time, the price reduction affects product testing the least. It is interesting to emphasize that research results show that no consumer rated T2 and T5 statements with the rating 1, and that concretely means that there is not a consumer who is completely against mentioned statements.

Comparison of means of statements according to gender of participants has been displayed in Table 3.

Table 3: Comparison means of statements according to participants' gender

Statements	Gender	M	SD	P*
T1	Female	3,46	,847	,062
	Male	3,05	1,214	
T2	Female	3,26	,813	,076
	Male	3,58	,957	
T3	Female	4,05	,789	,237
	Male	3,84	1,022	
T4	Female	4,11	,859	,165
	Male	3,81	1,139	
T5	Female	2,75	,912	,469
	Male	2,63	,787	

*t test for independent samples

Statistically significant difference in statements of both women and men has not been found with any of the statements.

Hypothesis H1 - Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers (brand switching, brand loyalty, purchase acceleration, stockpiling and product trial) depend on the gender of examinees - is not being accepted.

However results of the research displayed in Table 3 show that women are more inclined to agree with statements T1, T3, T4 and T5, while men tend to agree with statement T2 more. To be more precise, this means that women think more that price reduction will allow them to purchase brand they usually would not opt for, to purchase prior to planning, to purchase bigger quantities of the same product and to purchase product they have not yet tried. However, men more than women tend to buy the same brand even though another brand is on sale.

Table 4 shows comparison of means of statements according to the age factor of participants

Table 4: Comparison of means of statements according to the age factor of participants

Statements	Age	M	SD	Min	Max	P*
T1	≤ 30	3,14	,864	2	5	<0,001
	31 - 40	2,85	1,089	1	4	
	41 - 50	2,92	,812	1	4	
	51 - 60	3,35	1,027	1	5	
	> 60	4,28	,752	3	5	
T2	≤ 30	3,71	1,069	2	5	0,003
	31 - 40	3,70	1,081	2	5	
	41 - 50	3,60	,645	3	5	
	51 - 60	3,22	,736	2	4	
	> 60	2,78	,647	2	4	
T3	≤ 30	3,57	,756	2	5	<0,001
	31 - 40	3,40	1,046	1	5	
	41 - 50	3,84	,850	2	5	
	51 - 60	4,48	,593	3	5	
	> 60	4,39	,698	3	5	
T4	≤ 30	3,50	,855	2	5	0,009
	31 - 40	3,50	1,192	1	5	
	41 - 50	4,08	,954	2	5	
	51 - 60	4,35	,714	3	5	
	> 60	4,28	,958	2	5	
T5	≤ 30	2,79	,975	2	5	0,164
	31 - 40	2,35	,587	2	4	
	41 - 50	2,60	,645	2	4	
	51 - 60	2,83	,937	2	5	
	> 60	3,00	1,085	2	5	

*ANOVA

Statistically significant difference in opinion of participants with different age group has been determined with first 4 statements.

Hypothesis H2 – Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers (brand switching, brand loyalty, purchase acceleration, stockpiling and product trial) depend on the age of examinees - it is being accepted, but it is important to emphasize that there is no significant difference between attitudes of examinees when the impact of price reduction onto product trial is in question.

Post hoc tests show there is difference with the following groups:

- T1: age groups 1 and 5, 2 and 5, 3 and 5, 4 and 5 differ.
- T2: age groups 1 and 5, 2 and 5, 3 and 5 differ.
- T3: age groups 1 and 4, 1 and 5, 2 and 4, 2 and 5 differ.
- T4: age groups 2 and 4 differ.

Results of the research show that consumers older than 60 agree with T1 the most i.e. they think that price reduction will allow them to purchase brand they usually don't opt for. Age group 51-60 follows along, etc.. Consumer category up to 30 years of age mostly agree with T2 i.e. they usually purchase the same brand even if another brand is on sale. The results point

to the fact that older age groups agree less with this thesis i.e. they are rather less loyal to the same brand. Research results depending on the age of examinees suggest that consumers over 50 years of age considerably more agree with the statement T3 in comparison to younger consumers, which at the same time means that in case of price reductions much more consumers over the age of 50, than consumers up to the age of 50, will purchase products earlier than planned.

Research results depending on the gender of examinees, taken in consideration T4, suggest that the biggest difference is in agreement, i.e. in disagreement of consumers between the age group of 51-60 years of age and younger consumers of the age groups up to 40 years, which means that examinees of older age groups more decide to purchase bigger quantities of products than examinees of younger age groups.

Table 5 shows comparison of means of statements according to income of participants

Table 5: Comparison of means of statements according to income of participants

Statements	Income	M	SD	Min	Max	P*
T1	<= 500 KM	4,12	,781	3	5	0,001
	501 - 1000 KM	3,33	,986	1	5	
	1001 - 1500 KM	3,04	,838	2	4	
	1501 - 2000 KM	3,00	1,044	1	4	
	> 2000 KM	2,43	1,397	1	5	
T2	<= 500 KM	2,88	,697	2	4	0,005
	501 - 1000 KM	3,25	,806	2	5	
	1001 - 1500 KM	3,61	,786	2	5	
	1501 - 2000 KM	3,67	,985	2	5	
	> 2000 KM	4,14	1,215	2	5	
T3	<=500 KM	4,35	,702	3	5	0,065
	501 - 1000 KM	4,03	,810	2	5	
	1001 - 1500 KM	3,93	,766	2	5	
	1501 - 2000 KM	3,67	1,303	1	5	
	> 2000 KM	3,29	1,113	2	5	
T4	<= 500 KM	4,35	,862	2	5	0,060
	501 - 1000 KM	4,03	1,000	2	5	
	1001 - 1500 KM	4,07	,900	2	5	
	1501 - 2000 KM	3,50	1,087	1	5	
	> 2000 KM	3,29	1,113	2	5	
T5	<= 500 KM	2,76	,970	2	5	0,976
	501 - 1000 KM	2,72	,849	2	5	
	1001 - 1500 KM	2,61	,737	2	4	
	1501 - 2000 KM	2,75	,965	2	5	
	> 2000 KM	2,71	1,113	2	5	

*ANOVA

Statistically significant difference in thesis of participants with different income has been determined with first 2 statements.

Hypothesis H3 – Attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers (brand switching, brand loyalty, purchase acceleration, stockpiling and product trial) depend on the income of examinees-it is being accepted for

statements T1 and T2, while that cannot be emphasized for the remaining statements T3, T4 and T5, and that means that this hypothesis is being partially confirmed.

Post hoc tests show that there is a difference with the following groups:

- T1: age groups 1 and 2, 1 and 3, 1 and 4, 1 and 5 differ.
- T2: age groups 1 and 3, 1 and 5 differ.

Results of the research clearly show that consumers with less than 500KM income are most inclined to think that price reduction allows them to purchase products they usually don't opt for when buying. However, consumers with bigger income think that this statements is rather irrelevant. Statement T2 shows opposite results i.e. consumers with highest income usually buy the same brand of products i.e. they are the most loyal to the brand. However, consumers with lowest income show lesser loyalty to the same brand.

5. CONCLUSION

This research contributed to further deepening of the knowledge about the impact of price reduction on to behavioral responses of consumers on the market of Bosnia and Herzegovina where this subject matter has not yet been approached in a sufficient manner. By applying adequate methods, research results partially confirmed determined hypotheses about the impact of price reduction on to behavioral responses of consumers. Concretely, attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers – brand switching, brand loyalty, purchase acceleration, stockpiling and product trial – do not significantly depend on the gender of examinees. However, attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers - brand loyalty, brand switching, purchase acceleration and stockpiling - depend on the age of examinees, while that is not the case with product trial. Further, attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers - brand switching and brand loyalty - depend on the income of examinees, but at the same time mentioned attitudes of examinees regarding the impact of price reduction onto behavioral responses of consumers - purchase acceleration, stockpiling and product trial - do not depend on the income of examinees.

From research results it is evident that price reduction has significant impact on to consumer behavior and that retailers increasingly use that promotion activity in their operation activities. However, it is important to emphasize that frequent use of price reduction besides positive effects achieved in a short term period, can in a long term have and negative implications, first of all because of aggravation of perceived quality of company's product and brand image, and because of not realizing satisfactory profit.

Results of conducted research cannot be generalized because of existence of certain limitations. First of all, only behavioral component of consumer behavior was subject of a research, and it is important to emphasize that simultaneously (besides behavioral) also cognitive and affective components impact responses of consumers, which are not researched in this paper and they can have significant impact on consumer behavior. Further, research was conducted only on one –convenient sample that included consumers from only one city. Applied research method can also be regarded as potential limitation, i.e. data gathering by mall-intercept method, therefore using only one method, all though research could be conducted and by applying other methods.

Recommendations for further researches can be projected based on mentioned limitations and imperfections. Because of the complexity of consumer behavior in the future it is necessary to research the impact of price reduction on cognitive and affective component of consumer behavior, and only on behavioral, as it was the case in this research. For purpose of future researches it would be necessary that chosen sample includes consumers from the entire

territory of Bosnia and Herzegovina and not just from one city, since that would greatly contribute to generalization of research results. In purpose of generalization of research results, determined hypotheses could be tested by applying other method, for example by conducting several experiments and in that way determining if research results differ depending on applied methodology.

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RESEARCH ON THE DETERMINATION OF THE UNIVERSITY STUDENTS' ENVIRONMENTAL ACCOUNTING PERSPECTIVE: THE CASE OF EGE UNIVERSITY

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ABSTRACT

Today's global economic system and sophisticated production technologies have been causing negative impacts between human and nature relationships. Humankind is depleting natural sources increasingly more while doing efforts to diversify their needs, with the help of the technology. Industrialization and tendency of increase of the population led to the emergence of inevitable consequences about sustainability. Increasing pressures on unrenovable sources and growing environmental awareness have generated the need to account for interactions between businesses and the environment.

Our study aims to focus on concept of environmental accounting awareness and to evaluate the perception of young generation about social responsibilities for the environmental issues. Research will be limited to the university students that studying Faculty of Business Administration in Ege University in Izmir. Because these students will be the future's entrepreneurs, managers and accountants, they can give a decision or they can need them about the environment's financial data in the next. Consequently, we applied questionnaire to more than 400 students who took accounting courses.

Keywords: *Environmental Accounting, Green Accounting, Social Accounting, Sustainability*

1. INTRODUCTION

In organizations, financial and accounting process leads a considerable role through not only in internal decision making but also external evaluation of an operational performance. More comprehensive social level, accounting is embodied into social and professional ground and it reflections the objective world. (Hines, 1988).

Organizations are located in their environment with integrated relationships, they rapidly adjust themselves and establish strong links with the environment. Contradiction between organization objectives and environmental issues symbolize the legitimacy of the private rights and the environmental precautions should be implemented for the sustainable world resources.

Since 1970's "Accounting For The Environment" has earned significant value in Western countries. As a research topic of "Environmental Accounting" has focused on "Sustainable Economic Growth" and targeted to provide balance between ecology and the economy. Besides making remarkable contribution to economic growth, businesses had realized that interaction with their environments may have negative consequences on their environment as a result of their activities. Precautions has been taken into consideration in order to reduce and under control the negative effects on environment.

2. THEORETICAL BACKGROUND

The chronology of fundamental developments related to environmental accounting has been reflected to the present understanding with the following orders;

The period 1970-1980 is the beginning of the first era for environmental accounting research during the social and environmental issues had started to gain interest. Subject was introduced by a few researchers focusing on the ethical issue (Beans&Fertig, 1971; Churchman, 1971; Estes 1976, Linowes, 1972; Mobley, 1970).

In 1972 the report held by the Club of Rome called "*The Limits to Growth*". The report paid attention to the negative effects of massive volume of production activity; exploitation of natural resources and pollution will bring us to edge of catastrophic consequences for humanity.

At first, social and environmental accounting literature (SEAL) considered as and researched without treating unequally. Closing to 1980's researches suggested to separate social accounting and environmental accounting because of increasing attention to environmental reporting in comparison with the social aspects. Published articles about environmental accounting has been rare numbers at the beginning and mostly normative contributions. (M.R. Mathews, 1997)

Early studies motivated by various point of view (Bowman and Haire, 1975). One of the first research that aimed to understand the relation within social responsibility disclosures made by the firms and increased return to the company. Findings show that medium degree of social responsibility disclosures was associated with highest return on equity. Linowes (1972) is tried to offer one of the first model to understand the interaction of the organization, product and its cost for the environment in financial terms. Estes (1976) suggested a model that creation of disclosures called social effect statement that listing social cost and the social benefits of the firm on the environment. Costs list included as solid waste production, all forms of pollution (air, water, visual, noise) and damage to the terrain. The model aimed to show social consequences of the costs and the benefits by using cash flows as the basis of the disclosures. Financial data required to measure the surplus and the deficit of environmental accounting as an alternative to the traditional accounting.

Remarkable point should be mentioned that outcomes of early historical accounting researches had shown lack of interest to education as worthy subject for publication even though the university students have a chance to be aware of the researches about social and environmental accounting via the instructures. (M.R. Mathews, 1997)

1980-1990 period is the increasing awareness on the topic because of catastrophic results of some natural disasters. Activities of organizations has started to cause the global environmental problems. At the beginning of the 1980's is the starting point of separation of environmental accounting from social accounting (Ván H 2012). After 1990's awareness of environmental accounting within social accounting has increased and gain interest by the more accounting researchers. At the corporate level main studies is the internalization of externalities, waste policy, cutting costs, recycling and profit delivering for the green marketing. (Mathews, 1997).

3. WHAT IS ENVIRONMENTAL ACCOUNTING ?

Basically accounting is to supply data on the transactions of the firm and disclosures the need information in the economy. According to the classical accounting attitude, measurement of organization success is profit, Nevertheless, for the last three decades maximization of social interest of organizations gains increasing importance and it creates social and environmental accounting which was defined by Gray (1987) as:

“...the process of communicating the social and environmental effects of organizations’ economic actions to particular interest groups within society and to society at large. As such it involves extending the accountability of organizations (particularly companies), beyond the traditional role of providing a financial account to the owners of capital, in particular, shareholders. Such an extension is predicated upon the assumption that companies do have wider responsibilities than simply to make money for their shareholders.”

Environmental accounting includes various type of researches, practices and measurable data which focus on the relationships between the natural environmental and the organizations. Evaluation and disclosure process interpreted by financial and physical data. (Schaltegger – Burritt, 2010). On the basis of this understanding sustainable accounting may be considered as the most inclusive topic to identify social and environmental accounting. Initial aim of social accounting procedure is to supply significant organizational knowledge to the stake holders. Environmental accounting should be considered as subtitle of social accounting that integrating evidential consequences on the environmental held by the organizations. (Eugénio et al, 2010).

Sustainable development come up a popular topic in the beginning of 1980’s being outlined as various forms of economical development definition. However widely accepted definition is from the Brundtland Report (Brundtland, 1987).

*"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of **needs**, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of **limitations** imposed by the state of technology and social organization on the environment's ability to meet present and future needs."*

Regulations implemented aimed to apply environmental concerns into regulations, started in 1992. Under the name of European Commission’s Action programme announced some requirements to account the environmental expenses in the disclosures, then the BSI Group (British Standards Institution) published the first environmental management standard, In 1993, the EU publishes the Eco-Management and Audit Scheme (EMAS) the idea of EMAS is to assist organizations establishing well organized structures to develop environmental performance. In 1996 International Organization for Standardization issues ISO 14001 for same idea. (Institute of Social and Ethical Accountability) published, targeting to expand the ethical behaviours of organisations (Ván H, 2012)

Macroeconomic level of natural resources accounting provides continuous data on the use of sources in the economical transactions. For the decision makers and the society, being aware of the unsustainable resources facing scarcity, corrects the increasing reality of GDP value. Traditional way to measure the economic development (GDP) calculation has some weaknesses according to sustainable development point of view due to GDP calculation has zero consideration on the resources degradation and other harmful effects of economic activities. Considering not only market oriented valuation but also non market effects on environment must be given and added to GDP. That information network ensures to find out the needed precautions in advance and to give chance to evaluate the depreciation of earth sources for understanding the future economical performance. (Okafor,2012)

Microeconomic understanding of environmental accounting related to businesses as a main actors and complying with comprehensive financial/accounting reporting. Financial/accounting reporting are the main formal communication tools for the firms to inform the public and shareholders. Common accounting principles deals with the sources as definition of market prices and property rights. Attachment of environmental accounting will require more advanced reporting system as a management tool. Firms should evaluate the consequences of their activities on the resources and this valuation must be disclosed on accounting reports. (Okafor,2012)

Surely, environment accounting goals only come true by the increasing awareness of the decision makers, both macroeconomic and microeconomic sides. Macroeconomic decision maker's contribution by standardising account reporting via implementing inclusive regulations which may help to replace new philosophy of economic growth.

4. METHODOLOGY

Our research data collected by conducting questionnaire to the undergraduate students that studying at Faculty of Economics and Administrative Science in Ege University. We applied to the participants 27 questions included survey who have already taken at least one accounting courses. The sample designed as equal probability of selection, %95 confidence level, %5 margin of error (with equation $n=(\pi(1-\pi))/(e/z)^2$). 403 survey delivered and 384 of them accepted. Survey response data were subjected to analyse of variance (ANOVA) whether there were statistically significant difference.

Distribution of Students According to the Departments		
Departments in Faculty	Frequency (n)	Percent (%)
Business Administration	221	54.8
Economics	182	45.2
TOPLAM	403	% 100
Distribution of Students According to the Grades		
Grades	Frequency (n)	Percent (%)
1. Grade	4	1.0
2. Grade	111	27.5
3. Grade	157	39.0
4. Grade	131	32.5
TOPLAM	403	% 100

Situation of Montly Income		
Montly Income	Frequency (n)	Percent (%)
0 – 150 Euro	82	20.7
151 – 300 Euro	142	35.8
301 – 450 Euro	119	30.0
450 – 600 Euro	35	8.8
601 Euro and more	19	4.8
Total	397	% 100
Job Status		
	Frequency (n)	Percent (%)
Yes, I am working for a job	66	16.5
No, I am not working for any job	334	83.5
Total	400	% 100

Table 1: Demographic Characteristics

4.1. Research Findings

As shown in the Table 1,

- Participants were %38.6 percent Men and %61.4 percent Women. %54.8 percent of the participants studying Business Administration and %45.2 of studying Economics.
- Participants were %28.5 percent second grade, %39 percent third grade, %32.5 percent fourth grade students.
- %16.5 percent of the participants work for earning money, %83.5 percent of the participants don't working.
- More than %43.6 percent of the participants montly income level were over 300 Euro.

We primarily aimed to measure the awareness of environmental accounting which is the underlying topic of our study; %87,8 of the participants have never heard about anything about environmental accounting and %12,2 of stated that they have quite knowledge about it. Then we asked “How did you have chance to get information about environmental accounting” to those who stated that have knowledge about it. The answers as shown in the table 2.

	Frequency	Percent
Newspaper	5	9.8
Internet	18	35.3
Television	2	3.9
Followed Periodic Publications	1	2.0
Lectures	18	35.3
The Others	7	13.7
Total	51	100.0

Table 2: Information Resources About Environmental Accounting

According to Table 2, %35.3 percent of the participants who have knowledge about environmental accounting got information from internet and %35.3 percent of the participants got information from the lectures. It was also aimed to find out whether the participants have adequate knowledge of the initial topics and institutions about environmental issues. The questions related to evaluate awareness categorized as “knowledge level” parameter and measured via four-point Likert scale. According to the response data, awareness of the students about the topics of ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency are given below;

Assessing level of knowledge about ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency	Frequency	Valid Percent (%)
Poor	105	26.2
Fair	258	64.3
Good	35	8.7
Very Good	3	0.7
Total	403	

Table 3 : Level of Knowledge

According to the outcomes of knowledge level indicator shown in Table 3, %26.2 percent of participants has no idea about ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency, %64.3 percent has fair knowledge and participants who have good or very good knowledge about given topics were %9.4 percent. Environmental issues are featured subjects so students who has at least %73.2 percent of fair knowledge level should be considered as favourable outcome.

In addition when the sensitivity of the students over environmental issues and their aspects to those issues are analysed it has come out that;

- %78.5 of the students are sensitive to environmental issues,
- % 54.6 of the students think that the environmental issues are more important than their concerns about their own lives,
- % 26.6 of the students think that the environmental issues aren't more important than their concerns about their own lives.
- And % 17.4 are hesitant respectively

In order to define the borders for the sensitivity levels of the students their beliefs over the statement “*Companies Should Take Environmentally Protective Precautions*” are questioned. It has come out that % 97.2 of the students ratify that statement while % 0.5 are against that statement and % 2.7 are hesitant respectively. According to that result it is understood that students believe the necessity of the preservative precautions taken by companies. % 98.3 of the students answered as “yes” to the question “*Should Companies Bear Some Costs For Environmental Issues?*”.

After that the students are asked “*Would You Buy the Products of Companies Sensitive to Environment Although These Products Are Expensive*”. % 40.2 stated that they would buy although these products are expensive, % 40.2 are hesitant and % 15.7 stated negative opinions. Considering these results it is pleasing that the rate of the negative answers is such a low level as %15.7. Besides that the students are asked their opinions about the statement “*Companies Should Reflect the Environmental Costs to the Products*”. % 45.8 of the students agreed while % 28.6 are hesitant and % 25.6 disagreed respectively. Additionally the opinions of the students about the statement “*Environmentally Sensitive Companies Have High Competitive Power*”. % 56.8 of the students agreed while % 31.3 are hesitant and % 11.9 disagreed respectively.

After searching the sensitivity of the students towards environmental issues and the impact of that sensitivity over the companies, their opinions about following the environmental costs in accounting system were analysed. For this purpose Table-3 is constructed.

Environmental costs should be followed under accounting process		
Beliefs	Frequency (n)	Percent (%)
I agree	310	77.5
Undecided	66	16.5
I don't agree	24	6.0
TOTAL	400	% 100
Environmental Costs Should Be Located In Financial Statements		
Beliefs	Frequency (n)	Percent (%)
I agree	310	77.11
Undecided	79	19.65
I don't agree	13	3.24
TOTAL	402	% 100

Should environmental accounting be held in accounting courses as subtitle ?		
	Frequency (n)	Percent (%)
Yes	211	60.4
No	139	39.6
TOTAL	350	% 100
Should environmental costs be followed as a primary account or an auxiliary account ?		
	Frequency (n)	Percent (%)
Main Account	157	42.5
Sub-Account	212	57.5
Total	369	% 100

Table 4: Invorimental Cost and Accounting

As shown in the table 4,

- %77.5 percent of students stated that environmental costs should be followed under accounting process,
- %77.11 percent of students stated that environmental costs should be located in financial statements
- %42.5' percent of students stated that environmental costs should be followed a primary account and %57.5 percent of students stated that environmental costs should be followed an auxiliary account. Accordingly %78 percent of the participants agreed on environmental costs should be reported under financial statements. %42.52 percent of the participants believed that environmental costs should be followed under a secondary account.

In order to determine the beliefs of participants about environmental accounting we asked nine five-point Likert scale questions in the survey. For that purpose, factor analysis was performed and three main factors determined :

1. Factor : Beliefs about firm's susceptibility to environmental issues and necessity of reporting environmental costs in the financial statements.
2. Factor : Beliefs about students susceptibility to environmental issues.
3. Factor : Beliefs about reflecting the price difference related to environmental costs.

	Component		
	1	2	3
Environmetal costs are crucial and should be monitored in the accounting systems.	.779	.135	-.067
Environmental costs should be reported in the financial statements.	.763	-.051	.105
Firm should be susceptible to environmental issues and carrying out protective precautions.	.733	.058	.104
Firms should focus on benefits of the society rather than profit seeking.	.543	.261	-.222
Environmetal problems are more important than my self-concern about living.	.204	.681	-.200

Firms which are susceptible to environmental issues has competitive advantage.	-.099	.655	.148
I am susceptible to environmental issues.	.252	.428	.113
Firms should reflect the price differences related to environmental costs.	.061	-.070	.841
I would prefer products of the companies which are susceptible to environmental issues even the prices are higher	-.041	.492	.668

Table 5 :Rotated Component Matrix^a

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.330	25.885	25.885	2.330	25.885	25.885	2.142	23.799	23.799
2	1.471	16.345	42.230	1.471	16.345	42.230	1.416	15.736	39.535
3	1.062	11.795	54.025	1.062	11.795	54.025	1.304	14.490	54.025
4	.978	10.867	64.891						
5	.828	9.202	74.093						
6	.741	8.230	82.323						
7	.582	6.472	88.795						
8	.536	5.953	94.748						
9	.473	5.252	100.000						

Table 6 : Total Variance Explained

Extraction Method: Principal Component Analysis.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.671
Bartlett's Test of Sphericity	Approx. Chi-Square 429.740 Df 36 Sig. .000

Table 7 : KMO and Bartlett's Test

After initiating the factors, factors are compared with the knowledge levels and generated the hypothesis given below;

Ho1: There is no significant relationships between the knowledge level of ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency and the Factor 1.

Ho2: There is no significant relationships between the knowledge level of ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency and the Factor 2.

Ho3: There is no significant relationships between the knowledge level of ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency and the Factor 3.

		Faktör 1	Faktör 2	Faktör 3	Bilgi Düzeyi
Faktör 1	Pearson Correlation	1	.000	.000	.146**
	Sig. (2-tailed)		1.000	1.000	.004
	N	384	384	384	382
Faktör 2	Pearson Correlation	.000	1	.000	.071
	Sig. (2-tailed)	1.000		1.000	.165
	N	384	384	384	382
Faktör 3	Pearson Correlation	.000	.000	1	.072
	Sig. (2-tailed)	1.000	1.000		.163
	N	384	384	384	382
Bilgi skoru	Pearson Correlation	.146**	.071	.072	1
	Sig. (2-tailed)	.004	.165	.163	
	N	382	382	382	401

** . Correlation is significant at the 0.01 level (2-tailed).

Table 8 : Correlations

As for the statistical results of the table above, Ho1 is rejected. So, there is a relation between the knowledge level of ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency and “company’s environmental consciousness” and “the necessity of environmental costs to be reported in financial statements”.

Ho2 and Ho3 are not rejected. In this case, there is no relation between the knowledge level of ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency and “participants’ beliefs on environmental consciousness” and “participants’ beliefs on reflecting the environmental costs on prices”. Afterwards, the table below is attained by analyzing each knowledge level and Factor 1 (“company’s environmental consciousness” and “the necessity of environmental costs to be reported in financial statements”)

Knowledge level of participants about ISO 14000, ISO 14064, Kyoto Protocol, and European Environment Agency	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
Factor 1	No knowledge	103	-.1891073	1.07694036	.10611409	-.3995841	.0213695	-2.96933	1.84842
	Limited knowledge	243	.0356415	.96553359	.06193901	-.0863669	.1576499	-2.39043	2.05057
	Some knowledge	33	.2791669	.93370308	.16253684	-.0519098	.6102436	-2.05681	1.56928
	Sufficient knowledge	3	1.0220174	.26760047	.15449920	.3572610	1.6867738	.77663	1.30734
	Total	382	.0038257	1.00083716	.05120728	-.0968586	.1045099	-2.96933	2.05057

Table 9 : Descriptives

As result of this analysis, participants’ beliefs on “company’s environmental consciousness” and “the necessity of environmental costs to be reported in financial statements” get stronger when knowledge level is more.

Ho4: There is no difference between women and men in Factor 1 (“company’s environmental consciousness” and “the necessity of environmental costs to be reported in financial statements”)

Ho5: There is no difference between women and men in Factor 2 (“participants’ beliefs on environmental consciousness”)

Ho6: There is no difference between women and men in Factor 3 (“participants’ beliefs on reflecting the environmental costs on prices”)

		t-test for Equality of Means						
		t	Df	Sig. (2-tailed)	Mean Differenc e	Std. Error Differenc e	95% Confidence Interval of the Difference	
							Lower	Upper
Factor 1	Equal variances not assumed	-.215	275.081	.830	-.02340766	.10890790	-.23780652	.19099119
Factor 2	Equal variances not assumed	-2.610	271.604	.010	-.28288591	.10837493	-.49624761	-.06952421
Factor 3	Equal variances assumed	-2.249	381	.025	-.23539501	.10464836	-.44115565	-.02963438

Table 10: Independent Samples Test

For this purpose an independent sample T test has been conducted and at confidence interval of %95:

- There is no difference between women and men on “company’s environmental consciousness” and “the necessity of environmental costs to be reported in financial statements”. So Ho4 is not rejected/is supported.
- Women’s environmental consciousness is higher than men, so Ho5 is rejected.
- Women’s beliefs on reflecting the environmental costs on prices are more affirmative than men’s. So Ho6 is rejected.

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THE IMPACT OF COMPANY RESTRUCTURING ON THE SITUATION IN THE ECONOMY

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ABSTRACT

In their work the authors analyzed the companies from the field of work covering industry, agriculture and trade, which represent sampled companies in which testing was conducted. Also, the authors present the results of research in the fields that were subject of analysis during the period of expansion of company restructuring in the Republic of Serbia. The results of the analysis are given in segments as follows: the organizational situation in examined companies and the economic and financial aspects of the company's operations.

***Keywords:** Restructuring of Companies, Financial Analysis, Economic Situation in the Republic of Serbia and Enterprise Development.*

1. INTRODUCTION

The economy of the Republic of Serbia is characterized by high level of indebtedness of companies. Companies in the Republic of Serbia are in a very difficult position. After many years of economic sanctions and bombing by the NATO alliance, a period of global economic crisis appeared.²⁰ According to published research, more than 70% of privatized enterprises in Serbia have lower operating performances compared to those they had before privatization.²¹ The competitiveness of Serbian companies is sufficiently threatened, so the companies are not able to settle their financial liabilities towards neither to banks or suppliers, and salaries of the employees.

In their work the authors analyzed the companies from the field of work covering industry, agriculture and trade, which represent sampled companies in which testing was conducted. Also, the authors present the results of research in the fields that were subject of analysis during the period of expansion of company restructuring in the Republic of Serbia. The results

²⁰ Komazec, G., Živaljević, A., Trifunović, D. (2010) Technological innovation as a driving force of the enterprise revival in Serbia, 8th International Scientific Conference “ Forces Driving the Revival of the Companies and Economy”, Megatrend University, Belgrade, ISBN 978-86-7747-417-1, COBISS.SR-ID 179965196, pp 385- 398.

²¹ Kokeza, G., Stavric, B. (2009) Transition Impact on the Increasing Business Effectiveness of the Economic Subject, Annals of Business Economy, III, No4

of the analysis are given in segments as follows: the organizational situation in examined companies and the economic and financial aspects of the company's operations.

2. MACROECONOMIC INDICATORS IN THE REPUBLIC OF SERBIA

The gross domestic product in the observed period in the Republic of Serbia in 2011 compared to the previous 2010 is higher by 1.6%, and from that the highest growth was recorded in the field of electric energy supply, gas supply, trade activity, manufacture industry and agriculture.

Table No. 1 Basic macroeconomic indicators of the Republic of Serbia in the period 2010 - 2011

Year	2011	2010
GDP (ref 2005) permanent prices in RSD	1,888,704,8	1,859,303.7
GDP growth rate	1.6	1.0
Industrial production	102.1	102.9
Annual inflation rate	7.0	10.2
Export (in mil EUR)	8,439.4	7,393.4
Import (in mil EUR)	14,449.7	12,621.9
Foreign trade deficit (in mil EUR)	6,010.3	5,228.5

Source: Serbian Business Agency, Release on businesses in the Republic of Serbia in 2011 (2011)

The GDP growth is higher by 1.6 % in comparison to the previous year, the export is higher by 14.1% compared to 2010, while the import increased by 14.4% for the same period. Table No. 1.

3. ORGANIZATIONAL SITUATION IN ANALYZED BUSINESS ENTITIES

What is common for all organizations is that they consist of five parts, as follows: operative nucleus, administrative or ownership structure, middle level, technological structure, and auxiliary staff.

The operative nucleus relates to the work in production or services. That part of the company produces profit or new value. Every new value/product/process/service originates from a new idea and addresses customer needs/problems.²² The administrative structure or the capital owners represent the top management level and that structure is liable for the business operations of the company. The middle level represents the heads of plants and connects the ownership "top" and the operative part. The technological structure is liable for the work standards and the technological conducting of the production process. The auxiliary staff represents part of the company which indirectly helps in the company and represents the smallest organizational unit of the company. ²³

²² Sheu D.D., Lee H.K., A Proposed Process for Systematic Innovation, International Journal of Production Research ,Vol. 49, Issue 3, 2011, pp. 847-868.

²³ Trifunovic, D., Tankosic, M. (2013) Investment in Intellectual Capital as a Way of Strengthening the Company's Image, WSEAS, Advances in Fiscal, Political and Law Science,

However, each business entity has its own specificities in the organization of operations, as the activity of the company is different. That is why the organization of each analyzed entity is special and functions according to the economic laws²⁴ within their field of operation.

3.1. Economic and financial display of situation in the analyzed companies

In order to explain the financial standing and organizational situation in the analyzed companies, data shown in the work shall be used. The basic data which are relevant for the analysis consist of the realized income statement. On the basis of the totally analyzed companies which operate (23 companies) Table No. 2 shows profit – loss per years of research. The scope of research comprised the period of expansion of company restructuring in the Republic of Serbia from 2009 to 2011.

Table no. 2 Profit /Loss per years from 2009 to 2011

(000) RSD

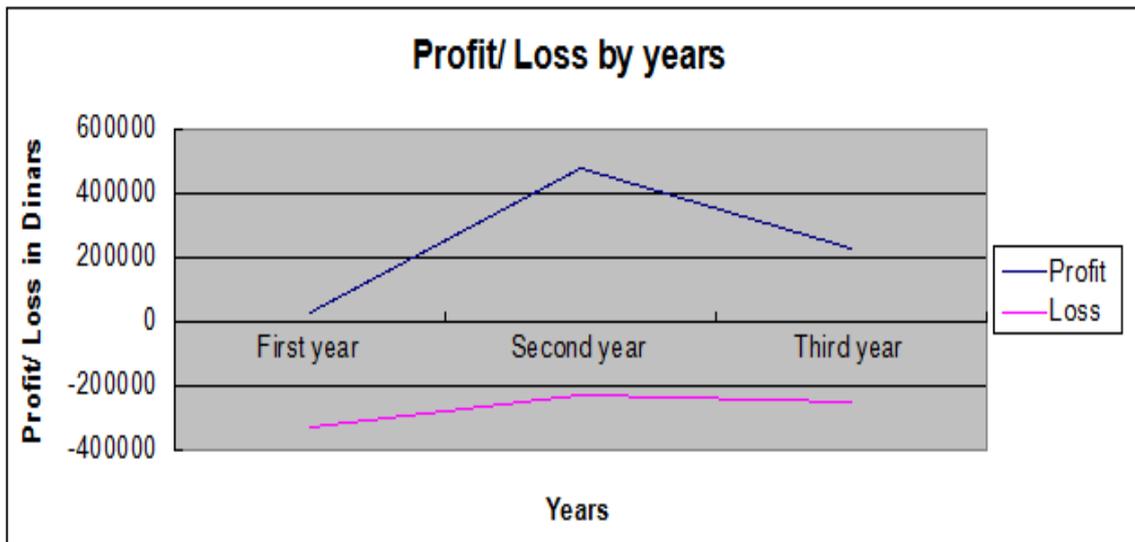
Profit-Loss by years									
	First year	Number of enterprise	% of successful companies	Second year	Number of enterprise	% of successful companies	Third year	Number of enterprise	% of successful companies
Profit	31.863	9	39	480.583	14	60	233136	12	52
Loss	327.025	14		227.195	9		245812	11	
Average Profit of companies	3.540			36.967			19428		
Average Loss of companies	23.258			25.243			22346		

Source: Research of authors based on data Agency for privatization

Table No. 2 shows that the number of companies which had a positive result was about 39%; that number was higher in the second year, 2010, and amounted to 60%, while in the third year, in 2011, that number amounted to 52%.

For illustration there is a graphic display in Graph No. 1 which is given per years wherein it can be seen that a larger number of companies recorded loss compared to the number whose operations were positive.

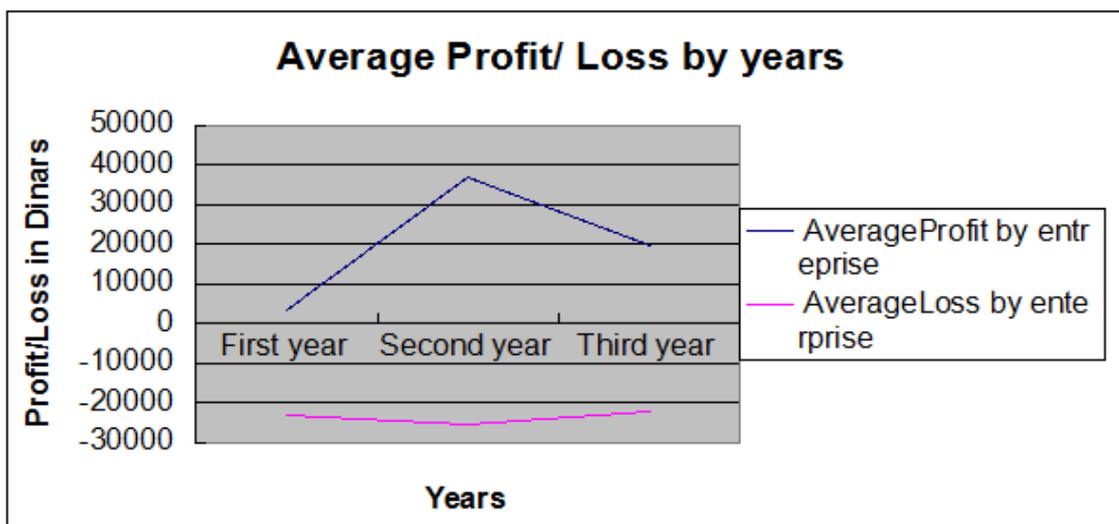
Graph No. 1 Profit – Loss of companies from 2009 to 2011



Source: Calculation of authors based on data Agency for privatization

Graph No. 1 shows that in the first analyzed year there were 9 companies with positive balance, while in the third analyzed year there were 12 companies.

Graph No. 2 Average profit – loss of companies



Source: Calculation of authors based on data Agency for privatization

The authors in Graph No. 2 show the average profit of the companies, as well as their average loss in the observed period from 2009 to 2011. A conclusion is drawn from the set analysis that the amount of loss of the companies in all three years is significantly higher compared to the profit of companies in the observed years.

4. CONCLUSION

On the basis of the presented data of the companies from the field of wood industry, agriculture and trade and the said conducted research the authors in their work reached the following conclusions.

The authors on the basis of relevant literature and available data, with regard to the observed period from 2009 to 2011, where in there was obvious expansion of restructuring of companies in the Republic of Serbia, came to the conclusion that the number of privatized companies in 2011 was by 5.4% lower than in 2010. The largest number of companies operated in the manufacturing industry sector, around 30%, and according to the size of the legal entity 74.8% consists of small enterprises in relation to all the privatized companies. The results of the above mentioned analysis which are given in segments of the organizational situation and the economic and financial aspects of companies operations, led us to a conclusion that regardless of the number of privatized companies there is realized loss, which is several times higher than the realized profit.

The high level of indebtedness of the companies, due to the world economic crisis, affected their competitiveness risk. The depreciation of the financial standing of the aforementioned companies made impact on their lower value in the privatization process. In relation to this, the authors in their work came to a general conclusion that the economic situation in the Republic of Serbia, in the observed period, was by large under high influence of the restructuring of companies which experienced expansion in the observed period.

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EXPLORING THE EFFECTS OF FINANCIAL EDUCATION: ANALYSIS OF SAVING BEHAVIOR OF CROATIAN CONSUMERS

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ABSTRACT

Over the last several years, the issue of financial literacy and financial education seem to have risen on the agendas of both academics and policy makers. The importance of financial education and financial literacy has never been greater than nowadays, when many countries are faced with the ongoing recession. Financially educated and well informed individuals should make better financial decisions and show off better financial behavior. In this paper, we explore saving behavior and socio-demographic characteristics of financial consumers exhibiting low saving behavior. The purpose of this paper is to explore saving behavior of consumers living in Croatia and thus help the policymakers in developing better targeted and higher quality programs. Moreover, the objective is to investigate the relationship between financial education and saving behavior to see whether, and in what extent, financial education affects saving behavior. The previous research in this field points to twofold results, whereat some authors found the evidence of positive correlation of savings and financial education, while others show opposite results. There is still no consensus on the effect of financial education on consumer saving behavior. In order to investigate relationship between financial education and saving, linear regression analysis is used. The regression model diagnostics is conducted and the stated model is appropriate. The results of the conducted research indicate that financial education has the statistically significant impact on saving behavior of Croatian financial consumers. However, although significant, the impact is rather low, what is in line with previous research in this field. The policy implications of research findings are discussed.

Keywords: *Financial education, Financial literacy, Linear regression model, Financial behavior, Saving*

1. INTRODUCTION

During the last decade, problems of financial literacy and efficient financial education have become very popular topics for academics, policymakers and government, financial intuitions, community groups, educators, households and individuals. Well educated and financially literate individuals should be able to make better financial decisions and ensure financial wellbeing of their households. Furthermore, stable and successful households should contribute to the social and financial integrity and economic wellness of overall society. Therefore, financial education is not only important for individuals and households, but for society and government as well.

The importance of financial education and financial literacy has never been greater than today, when many countries are faced with economic slowdown. The US financial crisis has spread to other countries across the globe, not sparing anyone; so many countries are still fighting the consequences and many problems caused by financial and economic crisis. While most of the responsibility is on financial institutions, much of the responsibility is also on consumers who, due to their own ignorance and insufficient knowledge of financial products and services, significantly contributed to the rise and spread of the financial crisis. Besides these current problems, financial education has become a very important topic in the context of innovation, globalization and the widening of the range of available financial products and services. Technological and technical advances, new channels and delivery processes of financial integration have resulted in an increase in the palette of financial products and services, as well as in the ways in which they are available to the end consumers.

OECD (2005) also emphasizes the increasing importance of individual's ability to successfully manage personal finances. Their results showed that many countries are faced with the following trends:

- Consumers are today expected to take considerably greater personal responsibility in terms of their financial well-being than they were in the past;
- People are living longer, and therefore the period they spent in retirement prolongs, which requires additional financing;
- Financial decisions that people face today are often significantly more complex than was the case in the past.

In order to be able to actively participate in economic and financial activities and protect itself and its family from possible financial risks in the future, one must acquire adequate level of financial education. Financial education can be delivered in the form of formal, non-formal or informal education, which includes a wide range of possible tools; from institutional education in the classroom and vocational counseling, over education using the Internet, interactive teaching materials and games, scientific, professional and publishing books, to the newspapers, brochures, television, radio and personal experience. Training programs vary in terms of content, target populations and methodology used, which ultimately has a significant impact on the credibility and quality of the program, as well as on the amount of the participants' acquired knowledge and skills. However, despite the many differences, all educational programs are aimed at increasing financial literacy of participants.

On the other hand, analysis of saving behavior is important as well for both academics and economic policy makers. Individuals' decision to spend and save is important in terms of ensuring households' long term financial stability and financial wellbeing, especially in the periods of unexpected events like decrease of income, unemployment, and illness etc. Furthermore, household saving decisions are also important in the macroeconomic analysis because of its impact on aggregate demand (Dumičić and Čibarić, 2010). Household decisions can be the causes of economic shocks (Palić, 2014). National savings, which include consumer savings, are equal to the investment in the country and abroad (Gartner, 2009). Although all the savings do not necessarily turn into productive investment, the role of personal savings in capital formation for economic development is very strong. In the neoclassical growth model, high savings are associated with high growth and lead to a new equilibrium income, while in the endogenous models high savings can have a lasting impact on economic growth (see Barro and Sala-i-Martin, 2001).

The purpose of this paper is to explore levels of saving behavior of consumers living in Croatia and determine characteristics of those exhibiting the worse behavior. Thus, the findings of this paper should facilitate and help the policymakers in developing better targeted and higher quality programs of financial education. Moreover, the objective is to investigate the relationship between financial education and saving behavior to see whether financial education has any influence on saving behavior, and if it has, in what extent.

2. LITERATURE REVIEW

The impact of financial education on financial behavior has been studied by many authors. According to Willis (2008) effective financial education should result in creation of financial literacy and furthermore positively affect behavior of individuals. In her research, Hung and Yoong (2011) found an evidence of positive correlation between financial education and financial behavior. Her findings suggest that individuals who possess an adequate level of financial education should be better planners, more moderate borrowers and efficiently better in accumulating wealth. The importance of financial education is particularly emphasized in matters of savings, investment and insurance pensions. Bernheim and Garrett (1996) in their work found a positive link between financial education and individuals' participation in pension plans. Boyce et al. (1998) have also confirmed a positive link between attending courses in the field of personal finance and tendency to save, while Bernheim et al. (2001) showed that secondary financial education was linked to an increase in the savings rate in the adult age. They concluded that "education can be a powerful instrument to stimulate personal savings". *High School Financial Planning Program* organized by NEFE (National Endowment for Financial Education) was attended by 2.7 million high school students. The results of their research prior to and after completion of the program showed improvement of skills related to consumption, savings and self-confidence (Boyce and Danes, 1998). O'Neill et al. (2000) found an evidence of a significant change in the respondents' behavior and attitudes before and after attending the educational program *Money 2000*. Staten et al. (2002) investigated results of the individuals who were clients of professional counseling for three years, and concluded that compared with households that did not use consulting services, households that participated in the consultation, expressed significantly better financial behavior (less debt, better management credit cards, etc.). In a similar survey, Hirado and Zorn (2001) examined the effectiveness of financial counseling on households' behavior in terms of mortgage delinquency. They concluded that people who have used the services of counseling had 19% lower rate of delinquency mortgage loans, compared to those who did not use such services.

On the other hand, some authors do not agree with the previous thesis of positive influence of financial education on subsequent financial behavior. They reported that the effectiveness of financial education is at least very questionable. For example, Mandell (1998) reached a conclusion that students who attended an educational program on consumer habits and personal finances, on average did not score better on tests of financial literacy than their counterparts who did not participate in the programs. In the study of 2005, he concluded that students who attended courses in the field of personal finance may not possess a greater level of financial literacy. Furthermore, Mandell (2008b) conducted a pilot study in which he proved that there is no difference in the level of financial literacy among students who attended one semester course in personal finances and those who did not participate in the course. Drexler et al. (2011) examined the impact of two different financial programs to assess the impact of financial education on financial outcomes. One group of respondents participated in the traditional program based on economic principles, while the second group participated in a program that was focused on the use rule of thumb. The authors found no

differences in financial behavior between the two groups. Also, they found no evidence of a statistically significant impact of financial education on the improvement of financial behavior. Similar conclusions were offered by Gartner and Todd (2005), Servon and Kaestner (2008), Choi et al. (2011) and others.

The findings of the researches investigating the relationship between financial education and financial behavior are various and significantly different. On the one hand, some studies have shown that financial education strongly and positively affects financial knowledge and skills, while, on the other hand, other studies emphasized a very weak impact of financial education on financial behavior, acquired financial knowledge and skills of recipients of education. It can be concluded that in the existing literature, there is no consensus regarding the effectiveness of financial education.

In Croatia, as well as in the countries of Southeast Europe there exists relatively small number of research related to the impact of financial education on saving behavior. Cvrlje (2014) analyzed relationship between financial literacy and successfulness in managing personal finances where successfulness was also determined with individual's propensity to save for the future. The empirical results of her research confirmed statistically positive relationship between financial literacy and financial successfulness. However, the impact of financial education on financial successfulness was not included in the analysis.

As previously mentioned, the results of this research are important not only for households and country's educational policy, but also for decision making of economic policy, since the economic growth is the key policy issue in each country. Private savings determinants in Croatia are analyzed in Dumičić and Čibarić (2010). Dumičić and Čibarić (2010) estimated the long-run equilibrium model between household savings and following economic variables: income approximated by industrial production volume indices, real interest rate on time foreign currency deposits, money supply, gross external debt and domestic credit to consumers. The empirical findings of similar research in developing economies support their results. Interestingly, they found that variable household savings explains the largest part of variation by itself after 10 months and concluded that savings are under the influence of the motives and factors that are not comprised by the aforementioned economic variables. This result is confirmed by the research of Palić (2014), which investigates the relationship of private savings and economic growth in Croatia. In addition, findings showed that private saving change explains substantially larger part of its own forecast variance in relation to economic growth. However, in both mentioned researches authors used households' deposits as approximation of private savings.

This study is based on the survey conducted using the representative sample of Croatian citizens and this is the first research that takes into account financial behavior of Croatian consumers based on the survey. Moreover, since macroeconomics variables did not explain large part of savings in previous research in Croatia, this research takes into consideration the financial education as a possible determinant of savings behavior for the first time. The methodology is explained in detailed in the following chapter.

3. METHODOLOGY AND RESULTS

This research attempts to analyze saving behavior in Croatia and characteristics of individuals exhibiting low savings behavior. Moreover, we attempt to investigate the correlation between financial education and saving behavior of Croatian financial consumers.

The sample is comprised of people living in Croatia, aged 20-79 years. The questionnaire was conducted with a judgmental sample of 30 respondents living in Zagreb with a purpose of testing the clarity of questions used in the survey. Also, before conducting the main survey, the questionnaire was pretested on 100 respondents living in Croatia. Feedback from both

samples was used in finalizing the structured questionnaire which was conducted during July 2014. The questionnaire was administered in the form of telephone survey using the base of randomly selected telephone numbers of fixed and mobile telephony. The survey was carried out from 08:00 am 08:00 pm in order to ensure a representative sample of all required groups (Salant and Dillman, 1994; Rea and Parker, 2005, Institute of Economics, 2010). The total of 494 respondents was gathered.

According to the previous researches (Hogarth et al., 2003), with a purpose of analyzing financial behavior, we focused on saving behavior. We classified levels of saving behavior into three main categories (low, medium, high). If a person answered confirmatory to the item, he/she scored one point, contrary, if the answer was negative, the score was equal to zero. After summing up the scores of the items which defined savings behavior and calculating total points respondents scored, we determined levels (low, medium, and high) of saving behavior. Respondents, who scored 1 out of three points, were categorized as “low”. Furthermore, those who scored 2 points were classified into “medium” group. Finally, respondents who scored maximum of 3 points were categorized as “high”. The items used to define saving behavior are shown in table 1.

Table 1: Items used to define saving behavior (Source: Authors)

Behavior	Items
Saving	I try to save regularly.
	I have an emergency fund.
	I am saving for my retirement.

2.1 Descriptive statistical analysis of individuals exhibiting low saving behavior

Results of the respondents’ scores on saving behavior, using described methodology, are shown in figure 1.

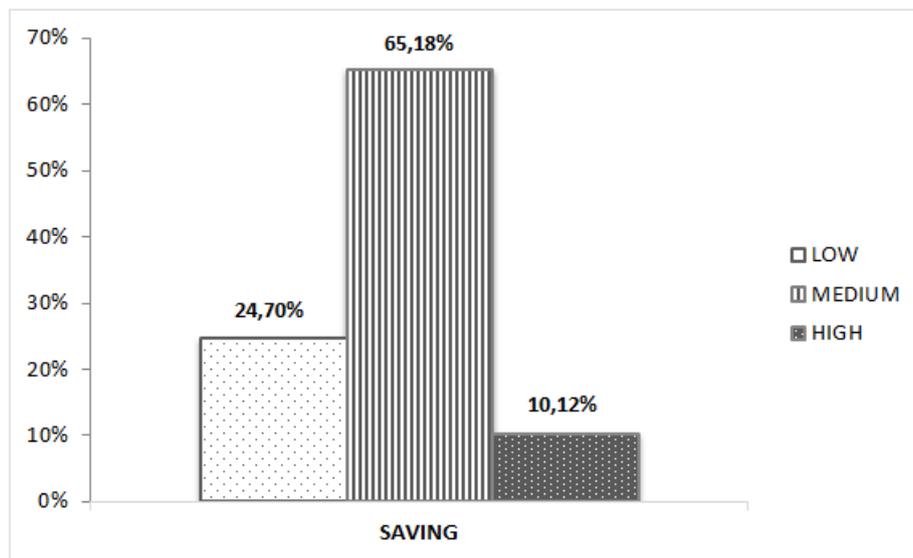


Figure 1: Respondents’ scores on saving behavior (Source: Authors)

Figure 1 shows the proportion of respondents scoring in the low, medium and high group of saving behavior. The highest percentage of respondents scored medium (65.18%), followed by those scoring low (24.7%), and finally, respondents scoring high (10.12%).

With a purpose of investigating low behavior in more detailed, we analyzed socio-demographic characteristics of respondents exhibiting low saving behavior. Figure 2 shows gender, age, level of education and working status of those respondents.

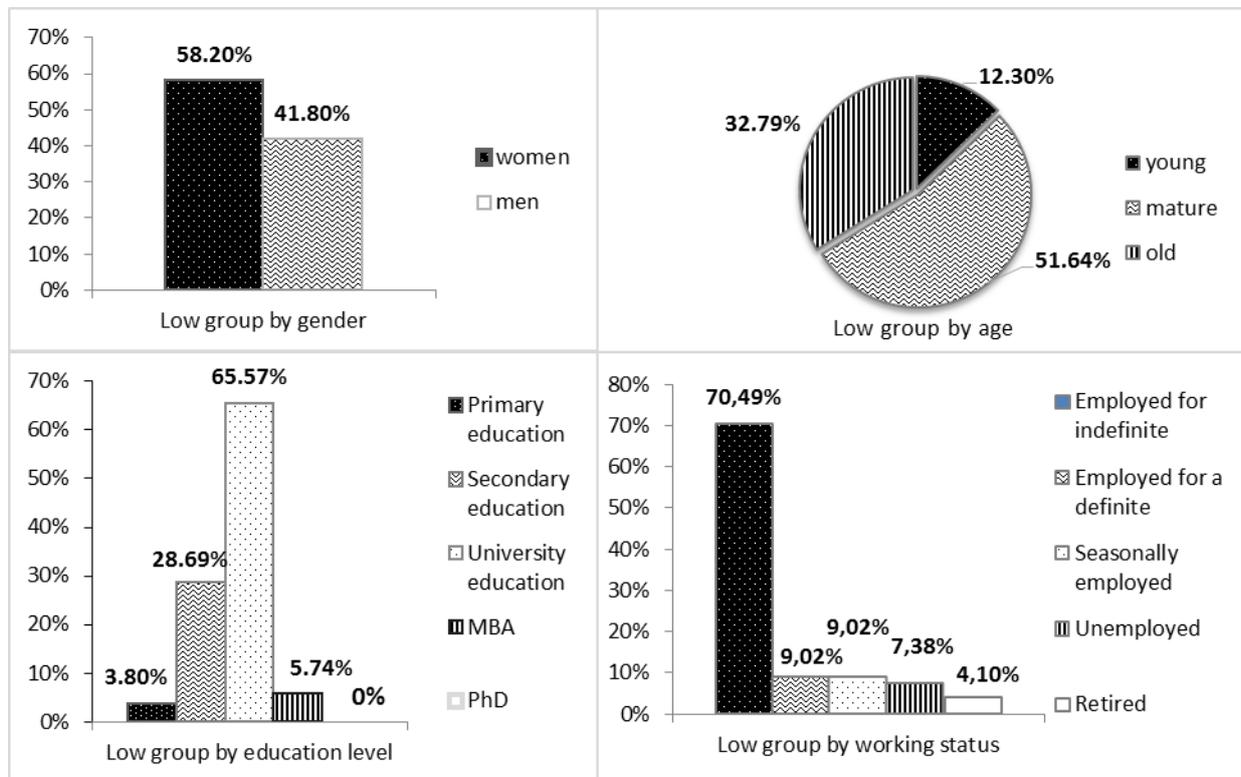


Figure 2: Socio-demographic characteristics of respondents in the low savings group
 (Source: Authors)

From the above figure, it is obvious that among those who scored low, most of them were:

- women;
- mature;
- university educated;
- employed for indefinite period of time.

Based on the descriptive analysis, we may conclude that these are the critical characteristics that should be taken into account while designing financial education programs intended to adults.

Regardless of confusing and contradictory empirical results of the previous studies examining the influence of financial education on subsequent financial behavior, it seems reasonable to believe that financial education programs should result in increased financial literacy and better financial behavior at least in a certain extent. Figure 3 presents levels of saving behavior (low, medium, high) by type of financial education (no education, formal or non-formal or informal, formal/no-formal and informal). Formal financial education corresponds to a systematic, organized education model, presenting a rather rigid curriculum as regards objectives, content and methodology. It corresponds to the education process normally adopted by schools and universities. Non-formal education is rather similar to formal education, but, compared to formal education, usually lacks some features like regular student attendance. It has a rather flexible curricula and methodology and it usually includes most activities taking place outside the institution. Informal education does not correspond to an

organized and systematic view of education. Informal education for instance comprises the following activities: visits to museums or to scientific and other fairs and exhibits, etc.; listening to radio broadcasting or watching TV programs on educational or scientific themes; reading texts on sciences, education, technology, etc. in journals and magazines; participating in scientific contests, etc.; attending lectures and conferences etc. (Dib et al., 1987). We developed three levels of financial education; (i) those who did not have any type of financial education; (ii) those who had at least some type of financial education (formal, non-formal or informal); (iii) those who had both formal or non-formal and informal financial education.

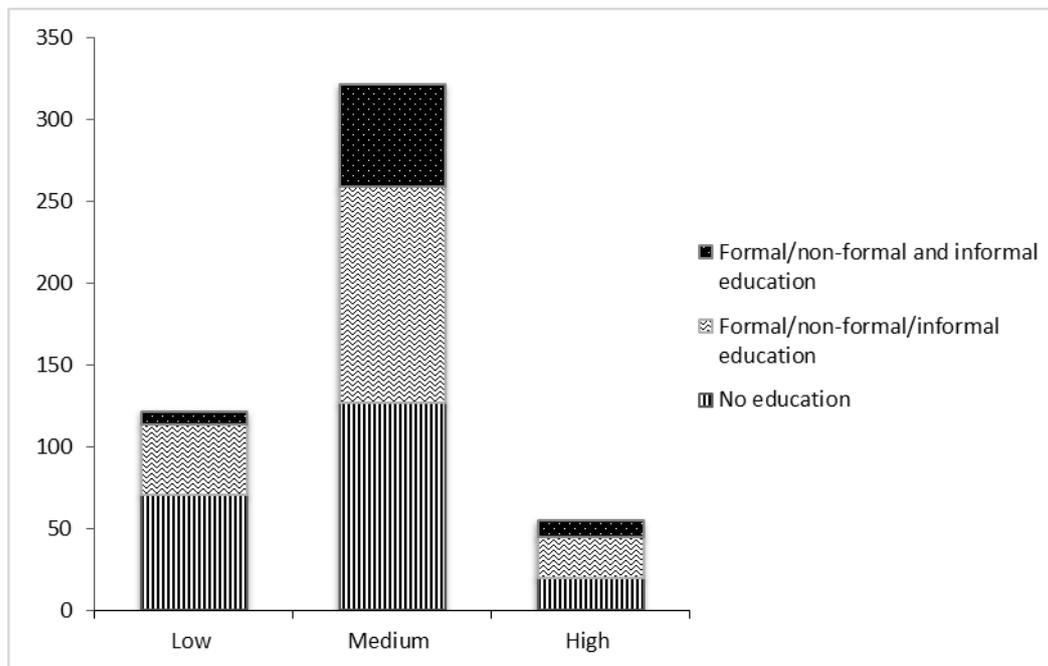


Figure 3: Financial education of respondents by the level of their saving behavior
 (Source: Authors)

Evidently, within the low group, respondents with no financial education are dominant, followed by those who received formal, non-formal or informal education. The least number of respondents in this group had both, formal/non-formal and informal education. Among respondents who were classified as “medium”, most of them had at least some form of financial education, followed by respondents with no education and those with the mixed financial education. Finally, in the last group “high”, most of respondents had some form of financial education, followed by respondents with no education and respondents with mixed education. From the graphical representation it is obvious that proportion of respondents who received some form of financial education or mixed financial education increases along the groups (from low to high), while proportion of respondents who did not receive any form of education decreases. This situation points to the relevance of financial education regarding individuals’ saving performance.

2.2. The empirical analysis of the relationship between saving behavior and financial education

The relationship between financial education and saving behavior is examined using cross-section linear regression analysis, whereat it is analyzed how saving behavior, as dependent variable (denoted by y_s), depends on financial education, as independent variable (denoted by x_{FE}). Both variables are expressed in points. Detailed explanation of linear regression model

is given in Wooldridge (2013). Cross-sectional data are widely used in economics and other social sciences. Data on individuals at a given point in time are important for testing hypotheses and evaluating economic policies (see Dumičić et al., 2014; Wooldridge, 2013). The estimated linear regression model (with corresponding standard errors in parenthesis) is:

$$\hat{y}_s = 1,1033 + 0.2215 \cdot x_{FE} \quad (1)$$

(0,0591) (0,0585)

Based on the t-test of significance, both constant (with *p-value* equal to 0.0000) and financial education x_{FE} (with *p-value* equal to 0.0002) are statistically significant in explaining saving behavior at 1% significance level. The regression coefficient $\hat{\beta}_1$ shows that if financial education x_{FE} would increase by one point, the regression value of saving behavior would increase by 0.2215 points. In other words, the estimated model shows that better financial education leads to more responsible saving behavior, i.e. to increased savings.

Diagnostic tests were conducted for the estimated model. The Breusch-Pagan-Godfrey heteroskedasticity test is conducted and the test statistic *Obs*R-squared* equals 3.0342 with corresponding *p-value* equal 0.0818, what indicates that there is not enough evidence to reject the null hypothesis which states that the problem of heteroskedasticity does not exist at 5% significance level. Furthermore, the serial correlation is examined using Breusch-Godfrey Serial Correlation LM Test with test value *Obs*R-squared* equal to 3.685 with corresponding *p-value*=0.1584, what shows there the problem of serial correlation up to the second order does not exist at any reasonable significance level. Therefore, the cross-sectional regression analysis of savings behavior has shown that, holding all else equal, better financial education impacts savings behavior positively. After the residual diagnostics, the representativeness of the model is examined. The coefficient of determination is $R^2=0.028$, and the estimated coefficient of variation for the regression is $\hat{V}=74.85\%$. The simple linear correlation coefficient equals $R=0.167$ what points to positive, but weak correlation between savings behavior and financial education. Although the impact of financial education on saving is shown to be statistically significant and positive, the estimated model is not representative due to low coefficient of determination which shows that only 2.8% of deviation is explained by the model. The estimated coefficient of variation shows that the relative deviation of estimated values for the variable savings behavior from the observed values is 74.85%. Therefore, in order to obtain more reliable results, other forms of financial behavior such as cash flow management, credit behavior and investment behavior should be included in the future analysis.

3. CONCLUSION

This paper contributes to the development of educational and economic policy of Croatia. The focus of the research is on financial education as very important part of education and saving behavior of individuals and households. The finding that financial education does influence saving behavior in Croatia is in line with similar studies conducted for other countries. In other words, the main finding of the conducted research is that financial education has the statistically significant impact on financial practices regarding savings. The socio-demographic characteristics of respondents who exhibited the worst saving behavior are also analyzed and the findings suggest that low saving behavior is more frequent at respondents who are female, mature, university educated and employed for indefinite period of time. The results of our research imply that increase in financial education can lead to the improvements

in responsible financial behavior. However, the size of the effect of financial education on saving behavior is rather small. Thus, it is important to understand and investigate in more detailed other elements that influence saving behavior, including variables that might act as moderators or mediators in the relationship between financial education and saving behavior. Since the positive effect of financial education on saving behavior is confirmed by this study, future research should examine potential positive influence of financial education on other forms of financial behavior such as cash flow management, credit behavior and investment behavior.

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THE IMPACT OF NATIONAL CULTURAL VALUES ON ENVIRONMENTAL REPORTING: A COMPARATIVE STUDY

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ABSTRACT

The countries around the world became increasingly dealing with environmental issues, because the environmental issues have constituted a problem that concurrently affects humans, nations and corporations. This paper investigates the impact of the differences in national cultural values on the extent to which the companies disclose their environmental performance information. This cross-cultural comparison based on the National cultural values (as suggested by Hofstede, 1980, Hofstede, 2001, and Hofstede et al., 2010), which include Individualism, Power distance, Uncertainty avoidance, Masculinity, Long term Orientation, and Indulgence. The sample includes the annual reports of 655 large companies from 20 countries selected from 10 different cultural areas, based on the international classification of accounting systems proposed by Gray S. J., 1988. We utilized the content analysis technique to capture the environmental disclosures of financial year 2012 within six industries are Automobiles, Chemicals, Foods, Metals and Mining, Oil and Gas, and Pulp and Paper.

Our results indicate that two of Hofstede's national cultural dimensions are linked to a higher degree of corporate environmental disclosure. In particular, a nation's high degree of individualism and indulgence were both related to high level of corporate environmental disclosure. While one of Hofstede's national cultural dimensions is linked to a low degree of corporate environmental disclosure. The nation's high degree of power distance was related to low degree of corporate environmental disclosure. Other dimensions such as Uncertainty Avoidance, Masculinity, and LTO are not related to Corporate Environmental Reporting. The control variables (regions, industries and firm size) were significantly related to corporate environmental disclosure. As a result, this study will support analysis of foreign markets by understanding the cultural variations throughout different countries within different cultural contexts. Furthermore, the results of the study can be considered as a guide for multinational corporations to evaluate the economic, legal, social situations in different countries when they wish to enter new markets.

Keywords: *Annual reports, Environment Reporting, Hofstede's Dimensions, and National Culture.*

1. INTRODUCTION

The increasing importance of environmental reporting has become particularly apparent in both developed and developing countries. This importance stems from the demands of stakeholders and other interested parties of information regarding corporate environmental responsibility as well as to other environment related activities. The corporate environmental disclosure may include information provided by companies relating to their activities in terms of environmental damages, emissions, spills, energy consumption or savings, and the efforts

to reduce the environmental damages. According to Berthelot et al. (2003, p: 2) corporate environmental disclosure is “the set of information items that relate to a firm’s past, current and future environmental management activities and performance” and “information about the past, current and future financial implications resulting from a firm’s environmental management decisions or actions”. Corporate environmental reporting mainly focuses on reporting of environmental investments, liabilities and other significant environmental costs, thereby providing related environmental financial information to external stakeholders. As a consequence, corporate environmental disclosure could be seen as a subset of corporate financial disclosure, since in most cases, it stems from the corporate accounting system. This paper provides an understanding of the impact of national cultural values on corporate environmental reporting. Hofstede national cultural dimensions are applied as indicators of national culture. The paper is organized as the following. After the introduction, section two outlines the most relevant literature on the relationship between national culture and social and environmental reporting. Section three reviews Hofstede’s national cultural value theory. Section four indicates the hypotheses development of students. While, section five describes the research method used, which includes sampling, descriptive statistics, and data analysis and results. Finally, section six provides the conclusions of the study.

2. PRIOR RESEARCH

Several studies have attempted to investigate the country effect by adopting a comparative framework in examining environmental disclosure issues. These studies emphasize generally on the corporate social disclosure (CSD) and suggest that CSD varies across countries, but few of the studies have attempted to explain the underlying reasons for the observed variations in CSD. In this context, Buhr & Freedman (2001) explore the role of cultural and institutional factors in motivating the production of mandatory and voluntary disclosure by comparing the environmental disclosure produced by Canadian and US companies. They show that Canadian culture and institutional infrastructure are more conducive to the production of environmental disclosure than US counterparts, because the collectivist nature of Canadian society has led to the production of a greater level of voluntary environmental disclosure. Mathews and Reynolds (2001), examine a possible classification of CSD based on Hofstede’s dimensions, applying Gray’s (1988) classification methodology of financial reporting. This classification is also based on Hofstede’s work. They show that differences in CSD levels between Nordic countries and the US relate to Hofstede’s (1983) dimensions. In addition, Newson and Deegan (2002) explore the social disclosure policies of large Australian, Singaporean, and South Korean multinational corporations. They indicate that the country of origin and industries of operation appears to significantly influence the social disclosure practices. Van der Laan Smith et al. (2005), also investigate CSD in combination with three of Hofstede’s dimensions: masculinity (MAS), power distance (PDI) and individualism (IDV). Application of the latter two dimensions was based on Gannon (2001), who combines PDI and IDV in a classification schedule for generic types of cultures. Van der Laan Smith et al. (2005) construct a prediction model for country of origin, with CSD as predictor to explain the differences in CSD between Norway/Denmark and the US companies. Simnett et al. (2009) examine determinants of assurance of sustainability reports. They focus on company, industry and country-related factors. The only country-related factor they apply is the distinction between stakeholder and shareholder orientation, for which the proxy legal system is used. They conclude that this orientation partly determines choices made with the assurance of sustainability reports. Similarly, Vachon (2010) suggests that two of Hofstede’s national cultural dimensions are linked to a higher degree of sustainable practices by

corporations. In particular, a nation's high degree of individualism and uncertainty avoidance were both related to green corporatism, environmental innovation, fair labor practices and corporate social involvement. Finally, Orij (2010) investigates whether corporate social disclosure levels relate to national cultures. The sample consisted of 600 large companies from 22 countries. Cultural measures were applied: a measure of secrecy, as proposed by Hope et al. and a constructed measure for generic types of cultures (Gannon, 2001); both derived from Hofstede's national cultural dimensions. The results state that corporate social disclosure levels are likely to be influenced by national cultures.

Unlike most prior researches, this paper applies Hofstede's cultural value theory to investigate cultural effects on environmental disclosure practices only, applying Gray's (1988) classification. This study represents a first attempt to empirically investigate the relationship between Gray's accounting dimension of Secrecy-Transparency and Hofstede's fifth and six cultural dimensions (Long term orientation and Indulgence) in context of environmental reporting. In this sense, the current study has expanded the Gray model to include Hofstede's fifth and sixth cultural dimensions. Therefore, our analysis includes the annual reports of 655 companies from 20 countries within 10 cultural areas. The study will contribute to a greater understanding of observed variations in CED among countries. In addition, the outcomes can be useful to the managers of multinational corporations, when preparing corporate environmental disclosures.

3. HOFSTEDE'S CULTURAL VALUE THEORY

Hofstede's cultural value theory states that all values and beliefs held by members of a society influence their judgments and decision-making, that in turn affects the behavior of individuals, groups, and institutions within the society. This theory was developed by Professor Geert Hofstede in 1980 through conducting one of the most comprehensive studies of how values in the workplace are influenced by culture. In his work as a human resource manager at IBM, Hofstede surveyed about 100,000 managers, employees and supervisors at IBM within 40 countries during 1967-1973 to identify behavioral patterns across cultures. Hofstede originally identifies four dimensions that represent the people's values at work related to the country in which they work. These four dimensions became the Hofstede values of national culture (Power Distance (PDI), Individualism versus Collectivism (IDV), Masculinity versus Femininity (MAS), and Uncertainty Avoidance (UAI)). A fifth dimension, long-term orientation (LTO), was added in 1991 based on a study by Michael Harris Bond in 1988, supported by Hofstede, this dimension, based on Confucian thinking and applied to 23 countries. In 2010, this dimension was modified by Minkov and labeled as Pragmatic versus Normative (PRA) In 2010, the Bulgarian scholar Michael Minkov generated the sixth dimension using the recent World Values Survey data from representative samples of national populations. This new dimension is called Indulgence versus Restraint (IND). In addition, Minkov has regenerated the fifth dimension (long-term orientation), the country scores for the fifth dimension was modified and extended to include 93 countries. Accordingly, the country scores used in this thesis are the scores of Minkov's research which was published in Hofstede and Minkov (2010) for both the fifth (long vs. Short-term orientation) and sixth (Indulgence versus Restraint) dimensions instead of the scores published in Hofstede 1980. We also refer to the fifth dimension as Pragmatic versus Normative (PRA).

Small vs. Large Power Distance: Hofstede defined Power distance as the extent to which individuals in a society could accept unequal distributions of power. It affects hierarchy and dependence relationships in the family and organizational contexts. Fundamentally, power distance dimension cultures on a continuum of small and large power distance (some authors

may use the terms “high” and “low” power distance). The premise of this dimension deals with the extent to which a society prefers that power in relationships, institutions, and organizations be distributed equally or unequally. Accordingly, it is concerned with how the societies consider inequality in power distribution among the people. The dimension of Individualism refers to the degree to which individuals define the concept of self as “I” or “we” (Hofstede, 1980, p: 47). Individualists emphasize the concept of “I” and focus on taking care of themselves and their immediate family. The individualism-collectivism dimension has been used extensively in the social behavior researches, especially in efforts to predict behavioral patterns of people in society. The cultural characteristic of masculinity refers to societies' decisions about “what implications the biological differences between the sexes should have for the emotional and social roles of the genders” (Hofstede, 2001, p: 279), these societies in which men are expected to be assertive, ambitious, and tough, emphasize clearly on distribution of roles between genders. In this context, Hofstede uses the words masculinity and femininity to refer to the degree to which masculine or feminine traits are valued and revealed. His idea is that many masculine and feminine behaviors are learned and mediated by cultural norms and traditions. Uncertainty avoidance refers to the degree of acceptance of uncertainties and ambiguities among members of a society (Hofstede, 1980, p: 47). In other words, it expresses the degrees to which employees feel threatened by unknown situations or uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen?

Long vs. Short term orientation (also referred as Pragmatism vs. Normative) is the fifth dimension. This dimension was added in 1991 by Hofstede after 14 years of his seminal study, long-term orientation or Confucian Dynamism refers to differences in the “time horizon” of thinking between the eastern and western countries. Based on the Chinese value survey conducted by Chinese scholars across 23 countries, Hofstede (1991, 1994) suggests that societies that have low scores on long-term orientation, possess past or present oriented values, whereas societies that have high score on long-term orientation hold future oriented values. The sixth dimension is Indulgence versus Restraint (IND): Using World Values Survey data from 93 nations/regions, Michael Minkov, a Bulgarian academic, recently disclosed a sixth dimension termed an indulgence versus restraint. Indulgence reflects a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. In this sense, gratification stands for an overall enjoyment of life. Its opposite pole, Restraint refers to a society that tends to curb gratification of needs and regulates it by means of strict social norms.

4. HYPOTHESES DEVELOPMENT

The research of cultural values that have an influence on corporate environmental disclosure (CED) can be achieved by hypothesizing that there are theoretically reasonable differences in levels of CED among corporations with different scores for particular national culture dimensions. A separate hypothesis are generated for each of cultural value dimensions tested, which, according to Hofstede (1988) and Hofstede et al. (2010) include; Power Distance (PDI), Individualism (IDV), Masculinity (MAS), Uncertainty Avoidance (UAI), Long-Term Orientation (LTO), and Indulgence (IND). Therefore, this research hypothesizes that there is a negative relationship between Power Distance (PDI), Uncertainty Avoidance (UAI), and Long-Term Orientation (LTO) and the level of corporate environmental disclosure (CED) on one hand, on the other hand the research also hypothesizes that there is a positive relationship between Individualism (IDV), Masculinity (MAS), and Indulgence

(IND) and the level of corporate environmental disclosure (CED). Accordingly, the following hypotheses are developed for the correlation study:

Large versus Small Power Distance: Power Distance is the extent to which less powerful members of a society accept and expect that power is distributed unequally (Hofstede, 2001). The people in large power distance countries accept a hierarchical order in which everybody has a place which needs no further justification. On the other hand, in lower power distance countries the people strive for power equalization and demand justification for power inequalities. When power distance is large, managers are expected to retain and not disclose information to preserve power inequalities, leading to more secrecy. Therefore the Power distance is assumed-to-be-related, positively to secrecy, and then, it is hypothesized that:

H1: there is a negative relationship between Power Distance (PDI) as a national cultural value and the level of corporate environmental disclosure

Individualism versus Collectivism: The second dimension is individualism (IDV), which refers to the extent to which the individual expects personal freedom versus the acceptance of responsibility to family, tribal, or national groups (i.e., Collectivism). Gray (1988) notes that secrecy is consistent with a preference for collectivism, as opposed to individualism, and the individualistic societies are expected to be less secretive than collectivist societies, where people share the common beliefs and possibly information and require extensive disclosure relative to collectivist societies. Analysis by Van der Laan Smith et al. (2005) indicates that a high score on IDV can relate to both a stakeholder and shareholder orientation of society. Then, a negative relation is proposed between secrecy and individualism. Accordingly, it is hypothesized that:

H2: there is a positive relationship between Individualism (IDV) as a national cultural value and the level of corporate environmental disclosure

Masculinity versus Femininity: Masculinity stands for a preference in society for achievement, heroism, assertiveness, and material success. Its opposite, Femininity stands for a preference for relationships, modesty, caring for the weak, and the quality of life. Although, Gray (1988) argues that transparency is more likely in the case of an orientation on “quality of life” and more caring societies (i.e. Feminine societies) may tend to be more open, especially for socially related information, he hypothesizes that MAS is likely to be negatively related to secrecy with financial disclosures. Consequently, the third hypothesis is:

H3: there is a positive relationship between Masculinity (MAS) as a national cultural value and the level of corporate environmental disclosure

Strong versus weak Uncertainty Avoidance: Uncertainty Avoidance is the extent to which society avoids risk and creates security by emphasizing technology and buildings, laws and rules, and religion. Weak uncertainty avoidance societies maintain a more relaxed atmosphere in which practice counts more than principles and deviance is more easily tolerated. Gray (1988) indicates that a preference for secrecy is consistent with the strong uncertainty avoidance following from a need to restrict information disclosures so as to avoid conflict and competition and to preserve security. Therefore, the Uncertainty Avoidance is assumed-to-be-related positively to secrecy, as secrecy is helpful in preserving security. Then the fourth hypothesis is:

H4: there is a negative relationship between Uncertainty Avoidance (UAI) as a national cultural value and the level of corporate environmental disclosure

Long-term versus Short-term Orientation: A fifth dimension, long-term orientation (LTO), was added in 1991 by Hofstede (2001). The LTO dimension refers to a forward-looking perspective rather than an historical perspective. Such a future orientation is related to thrift and perseverance. The opposite - short-term - orientation means a focus on social status, being fixed in the present and past. Borker (2013, p: 173) states that Low LTO fits well with

offering clear short-term financial results with disclosure immediately available for investor decision-making, and then it is assumed that there is a positive relationship between Hofstede's LTO and secrecy. Hence, it is therefore hypothesized that:

H5: there is a negative relationship between Long-Term Orientation (LTO) as a national cultural value and the level of corporate environmental disclosure

Indulgence versus Restraint: the sixth dimension, Indulgence (IND), was added in 2010 by Hofstede (2010). Indulgence stands for a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Its opposite pole, restraint, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms (Hofstede et al, 2010, p: 281). Borker, (2013, p: 173) suggests that there is a direct and inverse relationship between Hofstede's IND dimension and secrecy, and also that a high ID is associated with the accounting values of professionalism, flexibility, and optimism, and in turn, indulgence is likely to be consistent with transparency. Hence, CED is likely to be positively related to IND, and therefore it is hypothesized that:

H6: there is a positive relationship between Indulgence (IND) as a national cultural value and the level of corporate environmental disclosure

5. RESEARCH METHOD

To examine the impact of national culture on corporate environmental disclosure two parts of statistical tests (Correlation study and multiple regression study) are developed. The correlation study is used to examine the relationship between level Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long-Term Orientation, and Indulgence and the level of corporate environmental disclosure. On the other hand, the multiple regression study is used to examine the impact of control variables that are regions, industries, and firm size.

5.1. Sampling

The sample of study consists of 655 large companies from 20 countries based on Gray's (1988) classification methodology of cultural areas. The sample countries selected for research purposes are selected from the 10 different cultural areas and are indicated as the following; African: China, Anglo: Australia, Canada, UK, and US, Asian-Colonial: Honk Kong, and Singapore, Germanic: Germany, and Switzerland, Less Developed Asia: India, and Malaysia, Less Developed Latin: Portugal, More Developed Asia: Japan, More Developed Latin: Brazil, France, and Spain, Near Eastern: Iraq, and Turkey, Nordic: Netherland, and Sweden. The content analysis method was adopted in this study since it allows corporate environmental disclosure to be systematically classified and compared; which is useful for determining trends and extent of disclosures. Moreover, this method is one of the most systematic, objective and quantitative methods of data analysis technique employed in other prior research studies involving corporate environmental disclosure practices (Wiseman, 1982; Deegan and Rankin, 1996; Patten, 2002; Cormier and Magnan 2003; and Al-Tuwaijri et al. 2004). It is also one of the most common or dominant research technique used to study, measure and analyze corporate environmental disclosure in corporate annual reports.

5.2. Descriptive statistics

The descriptive statistics are shown in Tables 1 and 2; Table 1 presents the mean, standard deviation, minimum and maximum of the environmental information disclosed by companies by regions. This table shows that, by regions, the mean for the environmental information scores disclosed by companies in Anglo countries is 38.20 and the standard

deviation is 22.59. The table also shows that the mean for the environmental information scores disclosed by companies in Asian Colonial countries is 9.81 and the standard deviation is 10.36. At the same time, the other regions range from Nordic (31.64) to Near Eastern (12.98). Therefore, the different means between regions suggest that the value of environmental information disclosed by companies between regions may be significantly different.

Table 1: descriptive statistics of Environmental Disclosure by Regions

	African	Anglo	Asian Colonial	Germanic	Less Developed Asian	Less developed Latin	More Developed Asian	More Developed Latin	Near Eastern	Nordic
N Valid	15	222	64	55	94	9	59	48	45	44
N Missing	207	0	158	167	128	213	163	174	177	178
Mean	29.200	38.203	9.813	27.618	20.787	34.111	24.441	29.000	12.978	31.636
Std. Deviation	21.874	22.592	10.355	18.333	15.773	23.273	14.128	21.141	11.377	18.651
Minimum	1.00	1.00	1.00	1.00	1.00	3.00	1.00	1.00	1.00	1.00
Maximum	79.00	120.00	56.00	86.00	65.00	64.00	58.00	79.00	44.00	74.00

Table 2 presents the mean, standard deviation, minimum and maximum of the environmental information disclosed by companies work in 6 industries. The table shows that, the mean of the environmental information scores disclosed by Oil and Gas industry companies is 32.96 and the standard deviation is 21.87. The table also shows that, the mean of the environmental information scores disclosed by Food industry companies is 19.57 and the standard deviation is 12.94. Other industries range from 31.96 (Metal and Mining) to 23.37 (Automobiles). Therefore, the different means between industries suggest that the environmental information scores disclosed by companies operating in different industries may significantly differ.

Table 2: descriptive statistics of Environmental Disclosure by Industries

	Automobiles	Chemicals	Food	Metal and mining	Oil and Gas	Pulp and paper
N Valid	63	125	106	156	138	67
N Missing	93	31	50	0	18	89
Mean	23.3651	27.3360	19.5660	31.9615	32.9565	24.4776
Std. Deviation	15.41606	23.75138	12.93870	22.79216	21.86951	18.36198
Minimum	1.00	1.00	1.00	1.00	1.00	1.00
Maximum	60.00	109.00	71.00	120.00	99.00	67.00

5.3. Data analysis and results

Bivariate Pearson correlations between Hofstede's national cultural values and the measures corporate environmental disclosure CED are given in Table 3, including statistical significances. Statistically significant correlations are found between CED and three dimensions are PDI, IDV and IND, while there are no significant correlations between CED and three dimensions are MAS, UAI, and LTO.

Table 3: Correlation Coefficients

		EDV	PDI	IDV	MAS	UAI	LTO	IND
EDV	Pearson Correlation	1	-.656**	.720**	-.160	.106	-.107	.505
	Sig. (2-tailed)		.002	.000	.501	.657	.654	.023
	N	20	20	20	20	20	20	20
PDI	Pearson Correlation	-.656**	1	-.816**	.130	.067	-.085	-.654**
	Sig. (2-tailed)	.002		.000	.586	.778	.723	.002
	N	20	20	20	20	20	20	20
IDV	Pearson Correlation	.720**	-.816**	1	-.082	-.065	-.179	.734**
	Sig. (2-tailed)	.000	.000		.732	.784	.449	.000
	N	20	20	20	20	20	20	20
MAS	Pearson Correlation	-.160	.130	-.082	1	.127	.214	-.325
	Sig. (2-tailed)	.501	.586	.732		.593	.365	.162
	N	20	20	20	20	20	20	20
UAI	Pearson Correlation	.106	.067	-.065	.127	1	-.138	-.217
	Sig. (2-tailed)	.657	.778	.784	.593		.562	.358
	N	20	20	20	20	20	20	20
LTO	Pearson Correlation	-.107	-.085	-.179	.214	-.138	1	-.195
	Sig. (2-tailed)	.654	.723	.449	.365	.562		.409
	N	20	20	20	20	20	20	20
IND	Pearson Correlation	.505	-.654**	.734**	-.325	-.217	-.195	1
	Sig. (2-tailed)	.023	.002	.000	.162	.358	.409	
	N	20	20	20	20	20	20	20

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The results of hypothesis 1 indicate that hypotheses 1, 2, and 6 are accepted, whereas hypotheses 3, 4, and 5 are rejected. These results show that CED is positively related to IDV (.720), and IND (.505), in addition, CED is inversely related to PDI (-.656). These results suggest that, societies with high power distance, usually present a higher degree of acceptance of poor working conditions and polluted environment. Then, the society's pressure on companies to disclose environmental disclosure would be lower than the pressure in societies with lower power distance. Therefore, the higher power distance has a negative impact on the tendency of society to achieve and disclose the environmental protection activities generally. Moreover, the result of hypothesis 2 indicates that there is a positive relation between IDV and CED, which implies that firms in countries with a high degree of Individualism would be willing to disclose more environmental information than those in country's lower degree of individualism. The reason of this outcome is that due to the individualistic societies are expected to be less secretive than collectivist societies, where people share the common beliefs and possibly information and require extensive disclosure relative to collectivist societies, the companies in those societies would face higher social pressure to disclose environmental information compared to other companies. In contrary, the empirical results indicate that Hypotheses 3, 4, and 5 are rejected as indicated in table 3. The results of hypothesis 6 suggest a positive relation between IND and CED, which are consistent with Borker (2013) who hypothesizes that there is a direct and inverse relationship between Hofstede's IND dimension and secrecy, which in turn means that indulgence is likely to be positively related to corporate environmental disclosure. The indulgent societies tend to enjoy life and have fun and related to optimism, they are expected to be more transparent than restraint societies, where people share the common beliefs and possibly information and require extensive disclosure relative to restraint societies.

Three variables are used to control other factors that could affect the dependent variables. These variables are regions, industries and firm size. To examine the impact of control variables on the relations between National cultural values and CED three regression models is developed. The results of multiple regression models indicate that the region $F(7,12) = 4.583$, $p < .05$, industry $F(7,12) = 2.658$, $p < .05$, and firm's size $F(7,12) = 8.197$, $p < .05$ (measured by total assets) have a significant impact on the relations between the national

cultural values and the level of corporate environmental disclosure (CED). The possible reason for these results is that the companies operating in more developed countries may face stricter environmental reporting regulations than other companies operating in less developed countries, in addition to the increasing concern being given by companies in some societies to improve the environmental disclosure. In addition, the companies operating in more environmentally-sensitive industries are more likely to disclose environmental information that leads to legitimize their existence. Finally, the results also indicate that firm's size proxied by total assets (TA) play a very significant role in the corporate environmental disclosure. The size of a firm governs the firms' ability to invest their resources into corporate environmental technologies and management that is environmentally friendly since they tend to be more concerned with the company's corporate environmental reputation and corporate image while at the same time being visible to external stakeholders who demand higher corporate social environmental performance.

6. CONCLUSION

This paper aims to provide an empirical study of the impact of national cultural values on corporate environmental disclosures. The empirical findings can be summarized briefly as follows; three of Hofstede's Cultural dimensions are related to corporate environmental disclosure CED. In particular, a nation's high degree of Individualism and Indulgence are both related to a high degree of corporate environmental Disclosure, while a nation's high degree of Power Distance is related to low degree of (CED). Similarly, the control variables (regions, industries, and firm size) were significantly related to Corporate Environmental Disclosure CED. The results suggest that when the control variables of regions, industries, or firm size is introduced, the differences in the mean corporate environmental disclosure level of companies between the regions, industries, or different firm sizes become more important than Power Distance variable, Individualism variable, Masculinity variable, Uncertainty Avoidance variable, Long-Term Orientation variable, and Indulgence variable. We argue that the cultural characteristics of society in which a company operates, identify the extent and quality of corporate environmental disclosures in the annual report. In addition, country- origin, industry, and firm size are an important factors that influence environmental reporting the relationships between stakeholders and firm to identify the degree of emphasis on environmental issues. Our results give an explanation for the relationship between corporate environmental disclosure and national cultures, and will lead to support the stakeholders to understand the observed international differences in CED. In addition, these results can be useful to the managers of multinational corporations, because the preparing of the annual report in different societies requires considering the national culture and the social orientation of countries in relation to the level of environmental information disclosures to stakeholders.

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THE IMPACT OF FOREIGN DIRECT INVESTMENT ON THE UNEMPLOYMENT RATE IN THE REPUBLIC OF SERBIA

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ABSTRACT

This paper analyzes the Republic of Serbia in the period of transition from a planned economy with special social, political and economic conditions towards an open economy through the inflow of FDI and their impact to the unemployment rate. Creating the conditions for an inflow of FDI started in 2000 in Serbia primarily to increase the employment rate. Since 2000 most FDI has entered the sector of non-exchangeable goods which led towards increasing unemployment. That has had negative effects on Serbia from the development viewpoint, since the country needs FDI to the sector of exchangeable goods, as they encourage productivity, technological progress and employment. Foreign investors to Serbia were primarily interested in profiting from the privatization (Brownfield investments) of former state-owned companies which led to the rationalization of the privatized companies through redundancies. The benefits that Serbia has had from the inflow of FDI are significant transfer of technology, enhancement of competition on the local market. On the other hand, the negative effects are increase in the unemployment rate at the national level.

Keywords: *brownfield investments, FDI, greenfield investments, Republic of Serbia, unemployment rate, SEE countries*

1. INTRODUCTION

Investments are one of the most important issues of macroeconomic policy of a state. Therefore it is very important to define and implement a clear and consistent policy in this sensitive and important area of social life. Economies in transition, such as Serbia and other states of Southeast Europe, in the absence of its own capital makes decisions for "import of capital" to painlessly as possible change economic structure and make stable growth and development. A different choice, at least from their perspective, is almost non-existent.

According to the International Monetary Fund, the SEE countries, including Serbia, it takes far more foreign direct investment. In the years of the global economic crisis, these expectations are difficult to achieve. Therefore, it is important to continue attracting foreign investment in order to increase economic growth, reduce unemployment, and increase standards of citizens and the like. Foreign investment can be different types, on a case by case basis. Their insights require closer clarification of their essence and effects that can provide them. Therefore, the first to talk about investment notional disposition and types, and then on the effects that investments generate. This will provide more complete and complete picture of its essence and the reasons that lead to foreign investment.

FDI in transition economies directly affect the employment rate. Primarily through privatization (Brownfield investments) of existing companies there is a decrease the number of employees due to the reduction of operating costs, while on the other hand during the opening new businesses (Greenfield investments) comes to a direct increase in the employed population.

2. THEORETICAL BACKGROUND

In the reference literature are encountering different definitions of FDI. One of the more frequently used is given by the Kindleberger known expert in the subject matter. In his opinion, foreign direct investment is a direct investment in the company abroad, in order to gain permanent control over the production, trade and finance companies in which it invests (JovanovićGavrilović, P., 2004,p. 100).On the other hand, some authors point out that foreign direct investments provide long-lasting relationships and interests, as well as the possibilities of long-term and often permanent control of the organization in which it invests, or invested foreign capital (Kozomara, J., 2001, p. 29). It can be concluded that foreign investments are considered financial and other investment entities of one country in economic and organizations of other countries. As a rule, linked to the strengthening of economic and other capacities and job creation, the phenomenon of foreign direct investment can be viewed from two related but distinctly different aspects.

From a macroeconomic point of view, foreign investment represents a special form of movement of capital across borders of the national economy, the country of the investor to the host country. It is registered in the capital part of the balance of payments. The importance of such a movement of capital is reflected in the increase of the capital stock in the host country. The capital value of company in which was invested significantly is increased. Macroeconomic aspect of observing a given phenomenon is focused to explaining the motivation for undertaking direct investment abroad, from the standpoint of investors. Among other things, involves the study of reason, justification and consequences of taking such actions, behind which stand usually powerful multinationals. Any serious investment against various analyzes and assessments of competent experts from different fields. It must be well weighed, and then invest. It should be noted that foreign direct investment often leads to a merger or an existing business in the host country with the parent company abroad. Merged company changed ownership structure, legal identity, a common and managerial structure. Also worth mentioning is the fact that of the total direct investment abroad in the last two decades, between 70% and 80% of them are implemented as mergers and acquisitions (Rakita, B., 2006, p 338).

Companies are opting for mergers and / or acquisitions to accelerate the process of conquering new markets by buying local businesses that already have worked out a business. This approach significantly reduces the risk of investment, which is not surprising as foreign transnational companies at the initial appearance in countries in transition, including the countries of Southeastern Europe, under the auspices of the privatization process extensively used these opportunities and benefits.

Foreign companies in the host country open up entirely new business (opening of new factories, new production facilities, new branches and the like) that the existing market did not exist. Foreign investor actually starts from the "Greenfields" in which it state administration, often without any compensation, provides access to the infrastructure (electricity, gas, transport, etc.).This type of investment is known as Greenfield investments. Such investments include starting a business from scratch, building infrastructure, office space and skilled staff.

In any case, the choice of strategic alternatives is determined by the ratio of benefits and costs, regulation of the host country and the World Trade Organization. The company that implements the strategy of foreign direct investment has to make a series of decisions before start the realization of the same. The most important decisions that must be made at the same time are the choice of location and activity (horizontal, vertical and conglomerate), the definition includes activities (full production, part of the production, etc.), as well as the determination of the degree of legal independence (Bjelić, P., 2002, p. 21).

2.1. Types of foreign investments

There are different types of foreign investment. In the professional and scientific circles prevailing view is that there are three types of investments. These are (Rakita, B., 2006, p. 320):

- 1) Foreign direct investment (FDI),
- 2) International loans or capital movement loans and
- 3) International portfolio investments.

The role and importance of each category of international capital movements have changed over time. The difference between them is formed from the degree of impact of capital owners on use of funds invested. It is believed that direct investment, if an investor owns more than 10% ownership or voting rights of the company, which invests directly, regardless of whether the company operates in the public or private sector. Such investors could be more. Some of them may have less investment or ownership of the enterprise in which the investment is made, with a value less than 10% compared to the total value of the company.

Foreign direct investments are dominant form of foreign investment. The value of foreign direct investment changes from year to year, depending on economic, security and other conditions in the world. In 2000, FDI transfers abroad are about 1,400 billion dollars worldwide. Already in the 2001, following their amount exceeds the figure of 818 billion dollars. However, next year comes to their slight decline. Year 2002 transfer abroad were 650 billion, in year 2003 were 560 billion dollars (Unković, M., 2004, p. 100).

Transnational companies decided to place capital abroad in the form of direct investment to more easily enter on foreign market, enable access to specific resources and / or accelerate the efficiency of their operations. It is therefore no wonder that such companies often investors in the foreign capital enterprises. It is interesting to point out that the largest flows of FDI taking place between developed countries. For example, in 2002, foreign direct investment amounted to about 650 billion dollars, of which about 460 billion or about 71% went to other developed countries, about 162 billion, or about 25% in the developing countries. In that year, the countries of Central and Eastern Europe invested a little more than 4% of invested capital (JovanovićGavrilović, P., 2004, p. 182).

On the other hand, international lending, that is movement loans capital has no significance it once had. Such a method of securing of foreign investments was very strong, if not dominant in the first half of the twentieth century. However, time is pushed into the background, for the reason that it is not necessary to explain, because it goes beyond the purpose of this work. And finally, portfolio investments include investments by ensuring the ownership of the company to the extent of less than 10%. In addition, these investments are considered and deposits in banks as well as financial investments in the securities worth, which emits state or

the private sector. Such investments are becoming increasingly relevant, particularly in recent years. In addition, it is worth to point out that, according to the regulations of the Republic of Serbia, foreign investors are accorded national treatment in the all areas, except in the area of production and trade of weapons, as well as in the field of insurance. Forms of investment can be very different:

- 1) The establishment of new enterprises,
- 2) Investing in existing enterprise,
- 3) Opening of a representative office,
- 4) Concession and purchase of shares of local companies.

2.2. The effects of foreign investments

The effects of foreign investments are important, especially in underdeveloped countries and regions of the world. The positive effects of such investments are especially important for the countries of Southeastern Europe, as evidenced by numerous indicators. Of course, foreign investments are linked to certain disadvantages. This is of particular importance for the Republic of Serbia. Among other things, because it is well known that foreign investments do not always lead to the desired results.

Some authors reasonably point out that “foreign direct investment in modern developmental stage function as a key development factor and with international trade as the main mechanism for the globalization of the world economy or business enterprise” (Gnjatović, M. 2002, p. 29). However, at the view of globalization has another angle. Industrialized countries have to avoid open their markets to goods from developing countries, while maintaining its import quota for a multitude of products from textiles to sugar, while insisting that developing countries open their markets for goods from wealthier countries (Stiglic, Dž., 2004p. 21). In other words, took advantage of his position and power, in terms of known, "price" small and underdeveloped countries, in order to maximally protect their own interests at the expense of small and poor countries and people.

The positive effects; in the era of global economic crisis is most clearly evident the importance of foreign direct investment as an engine of economic recovery and development in developing countries and countries in transition. Such countries are considered SEE countries. They are characterized by shortages of capital, which is considered to be the main generator of economic prosperity. Foreign direct investment, unlike loans capital, does not require repayment of principal and interest, and contribute to the stabilization of the national currency, GDP growth and improving balance of payments situation. By hiring local labor, as a rule, under very favorable conditions for investors, reducing the unemployment rate and increasing disposable income of the local population.

Calculation and collection of taxes and interrogation in the west of newly employed workers results in improved inflow in health, pension funds, as well as in budgets of local communities. FDI involve of starting a new business abroad. To be able to achieve such goals is essential technology transfer in host country. It is the technical knowledge, but also skills in management and marketing.

The above approach enhances the way the business of the entire national economy, as domestic economic agents tend, under the pressure of competition, look to the new market rivals. Ultimately, the growing competitiveness of the entire economy, newly built capacities certainly provide better supply of the domestic market. Surpluses are exported, and thus improve the image of the host country.

The negative effects; states as final destination of foreign capital must take into account a possible negative consequence in process of internationalization of business. For example, the anti-globalization as an argument against FDI inflow allegations unscrupulous exploitation of the workforce. Such reactions are not unique and are all present in the world. Although the anti-globalizers are certain things we can refute the fact that their views are not without foundation. It is another matter that the poor are not able to elect or to significantly affect the rules of the game.

Critics of foreign direct investment commonly report fact that they are actually providing technological dependence of the domestic economy from abroad. On hand to them is the fact that most of the world's powerful companies invest their capital directed toward regions and countries with the lowest wages, as well as to countries where the rights of employees may with impunity, soulless and long term threaten and diminish. Under the influence of foreign capital, especially when it comes to direct foreign investment, the economy evolves according to the needs and interests of foreigners, and not according to the needs and interests of the local population (JovanovićGavrilović, P., 2004, .p. 161). Because of this concerns, economic policy makers are obliged to appropriate decisions prevent distortion of domestic economic structure and activities of multinational companies focus towards achieving the national macroeconomic objectives. It is more than clear that this is not taken sufficient account yet. The consequences of such a situation can be very serious, and that in the long run.

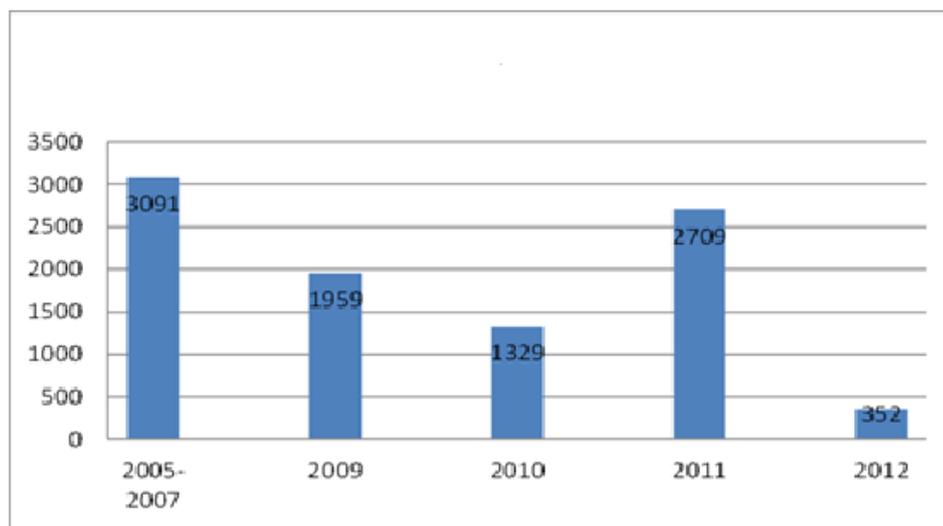
The special problem for the state and its administration is the need to ensure transparency of the market. This need is particularly evident in underdeveloped countries where international, economically powerful companies in the initial years of operations may by the dumped prices eliminating competition and then exploit a dominant position in the market. From such situation cannot benefit anyone, except transnational companies. The most radical critics of foreign direct investment suggest that such investments may even threaten the sovereignty of the state, as the people behind them have significant information that may be misused. On the other hand, there is thought to indicate the different fears arise as a result of the retrograde model of thinking and devoid of any foundation. One of the big problems is certainly the transfer of profits from a branch of the parent company. This leads to overflow of capital accumulation in the host country abroad. Legal and other regulations of the state tend to compressing the above phenomenon, but multinational companies are available numerous mechanisms that easily circumvent legal restrictions (for example, through transfer pricing, etc.).

The stated methods of transfer profit distort the balance of payments, and initial positive effects, resulting inflow of capital, are sometimes completely neutralized. One of the key motives of foreign companies to do business across national borders is certainly the exploitation of natural resources of the host country. Frequently it comes to renewable sources of energy and mineral resources, and the government must be very cautious in defining the concession contract. Similar reasoning can be applied when it comes to the use of infrastructure in the building of which foreign companies have not participated, and to a large extent is used (for example, connections to water, electricity, gas and the like; use of local roads, the use of local transmitters, etc.). Although the fact that foreign capital plays an important role in promoting economic growth, economic policy makers must be aware that excessive expenditure in public spending could jeopardize the achievement of the positive effects of foreign direct investment (Le Manh, V., Terukazu, S., 2005, p.45). About fact to the

competent authorities of the countries of Southeastern Europe had to constantly take into account if they want to truly protect its national and state interests. Even more so because it is a country that is a long time faced with the problem of excessive public spending.

3. FOREIGN DIRECT INVESTMENTS AND THE RATE OF UNEMPLOYMENT IN THE REPUBLIC OF SERBIA

The value of foreign investments in the Republic of Serbia in the period from 2005 to 2012 is about 9.5 billion dollars. The largest investment in the reporting period was the period of 2005 - 2007 (more than \$ 3 billion), and the lowest in 2012 (\$ 352 million). Considered by year, the value of foreign investments in the country's largest in 2011 and amounted to more than \$ 2.7 billion. Although the value of such investments is not enough for the Serbian ailing economy, the fact is that without FDI unemployment rate in Serbia be much higher, regardless of the fact that FDI does not always bring new jobs. In many cases, such investments are related to the purchase of domestic companies, that companies which employ a large number of employees. Moreover, in such cases, the number of employees has not increased but usually decreases.



Graph 1: The value of foreign investments in the Republic of Serbia in the period from 2005 to 2012 (UN World Investment Report 2013)

Forecast National Bank of Serbia (NBS) is due to EU accession process, government stability and structural reforms will stimulate FDIs. In 2014, a net FDI inflow of EUR 1.2bn was recorded, mostly in manufacturing, finance and trade. Most of the FDI came from EU (around 80% of total), Russia (7%) and Switzerland (3%). FDI is projected at EUR 1.3bn in 2015. Major part of inflows will target the manufacturing and trade sectors. FDI projections exclude potential privatization proceeds, some of which have been announced for 2015 (www.nbs.rs). Before the crisis, dominant share of FDI inflows was directed at the finance sector, as well as construction and real estate. In Q1-Q3 2014, the greatest share of gross FDIs was directed at the manufacturing (34.5%) and finance industry (25.8%). Since 2011, share of FDIs to the manufacturing industry has been steadily rising (www.nbs.rs).

The unemployment rate in the Republic of Serbia is very high, especially in recent years. The causes for this are numerous. Among other things, these are: the process of reclamation, permanent decreasing accumulated and productivity of the economy, restrictive economic

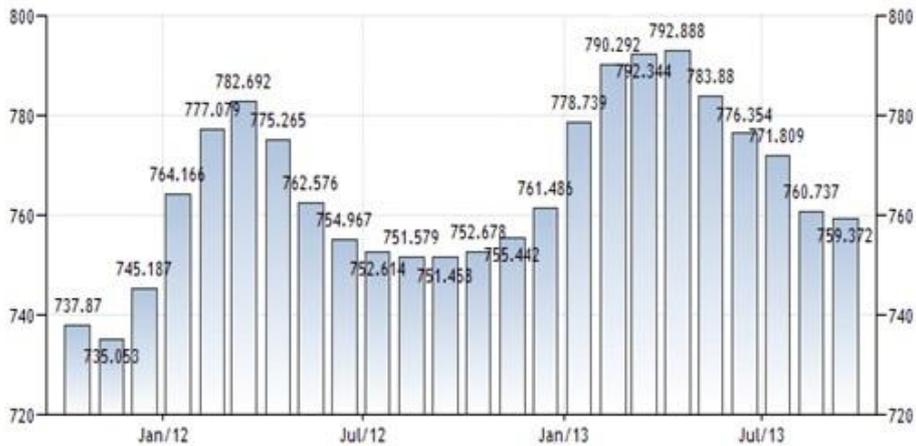
policies, unplanned personnel policy, the negative tendencies in the field of population policies, brain drain, etc. (Milošević, G., 2012, p. 264).

Graph 2. indicate that from 2008 to 2012, unemployment in Serbia is constantly growing. In the first half of 2008 amounted to about 13.3%, and in mid-2012 was higher than 25.5%. Although this condition contributed most to the effects of the economic crisis it has benefited as other relevant factors, such as the failed privatization, rising crime and corruption, wrong economic policies, over-indebtedness of the domestic economy, and the like.



Graph 2: The rate of unemployment in the Republic of Serbia for the period from 2008 to 2012 (www.tradingeconomics.com)

On the basis of information contained in Graph 3. it can be concluded that unemployment is not reduced. On the contrary, a slight increase. In the summer months, the situation is somewhat better, but during the fall and winter again deteriorated and was returning to previous positions. All in all, it is obvious that unemployment in our country at this time (December 2013) is higher than ever in the past few decades.

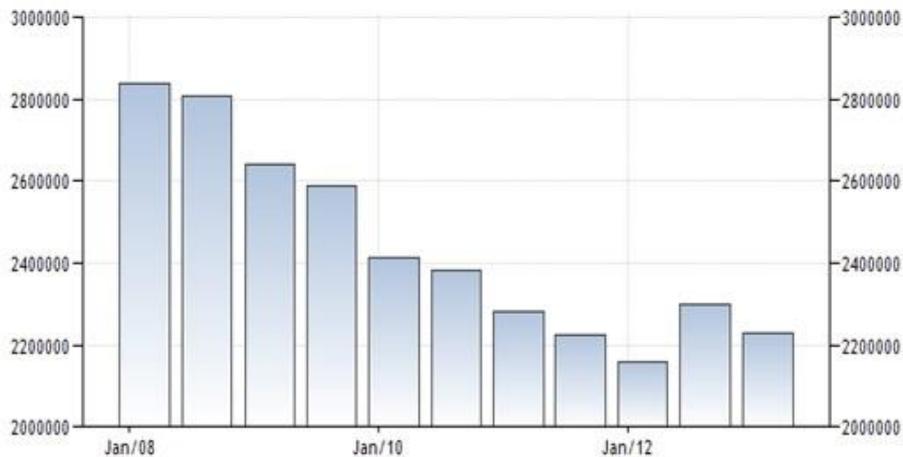


Graph 3:

The employment situation in the Republic of Serbia in 2012 and 2013

(www.tradingeconomics.com).

Data detained for Graph 4. testify to the fact that employment in the Republic of Serbia, in the reporting period, tends almost continuous decline. For a few years, without job is more than 600 thousand people, which in a small and poor country like Serbia, represent irreparable loss.



Graph 4: *The employment situation in the Republic of Serbia for the period from 2008 to 2012* (www.tradingeconomics.com)

4. CONCLUSION

Foreign direct investments should create new employment, to mitigate the transitional changes also to lead the introduction of new technologies and new management model, changing work habits, as well as to prevent brain drain from the country. Poorly executed

privatization and inadequate use of funds that have flowed into the budget after privatizations, as well as lack of foreign investment have led Serbia's unemployment rate to increase. In order to withdraw larger foreign direct investment and to influence the reduction of unemployment is necessary to develop local entrepreneurship which will follow foreign investors because they usually seek for local partners. Failure to take steps towards the development of entrepreneurship on one side and use of comparative advantages based on cheap and highly qualified workforce as well as wealth of natural resources on the other side will not lead to a significant inflow of foreign direct investment. It will lead to an increase in the unemployment rate in the Republic of Serbia. The largest percentage of foreign direct investment in Serbia was related to privatization - the purchase of state-owned enterprises. Due to the rationalization of operations through relaxation redundancies from one side and due to the slow transfer of formally employed workers to real sector of economy on the other side the process of transition in Serbia led to a decrease in the number of employees in state-owned companies and consequently to a decline of formal employment. Due to the lack of competitiveness of the national economy on a global level and direct foreign investment in non-exchangeable goods such as banking, telecommunications services and retail was not created the possibility for the absorption of surplus labor from the privatized company which directly increased the rate of unemployment. The inflows of FDI in Serbia have had a positive impact on economic growth, but not on exports. This has had negative effects on Serbia from the development viewpoint, since the country needs FDI to the sector of exchangeable goods because they encourage productivity and technological progress. This would absorb surplus labor from privatized enterprises and public administration, improve the trade balance, and create technological progress and competitiveness of the economy. Attracting greater foreign direct investments that are export-oriented, would stimulate productivity, technological progress, export, also would increase the competitiveness of local businesses which directly led to higher demand for labor. This would have a big impact on the reduction of unemployment in the Republic of Serbia.

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TREATMENT OF ELECTRONIC AND ELECTRICAL WASTE – CASE STUDY

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ABSTRACT

The issue of recycling activity is particularly important to the national economy, and the protection of the environment, is the subject of great attention to various social and political organizations at the highest level. The emphasis is on the present, in which modern man is totally dependent on electrical and electronic devices, without which survival is unthinkable - it is about electrical and electronic waste (e-waste). The paper aims to present some experience, knowledge and practice of the treatment of e-waste in countries with different economic and economic status, with special emphasis on our country.

Keywords: *economic, environmental, electric, electronic waste, recycling, waste*

1. INTRODUCTION

The collection of waste materials and their resumption in raw circle is the basic rule of the developed world and usually maintains the level of economic development, education and culture of the society. In our country, a lot has been done to increase the size of the collection and use of waste materials and develop the production of secondary raw materials. In this work, however there is still a lot needs to be done. We can often, sometimes even in technical jargon, the term waste no different than all the frequently used - secondary raw materials. In fact, all the waste generated in the process of production and consumption has a material substance and energy that is the application of certain technical, technological and chemical processes can be adapted and brought into a form suitable for recycling and exploitation – i.e. become secondary raw materials.

The level of technical equipment operation, in spite of significant progress in recent years, it is still low. Only some organizations have managed to catch up with developed countries. The problem of how to achieve a balanced deployment of higher processing technologies and how to follow the world achievements in research and treatment of waste. The main motto of every society must be to work with management and unused fertile soil. Introducing a single material, always open for new ideas and new opportunities. For a country is irreparable damage, which in this business only some organizations and a small number of professionals. Thus, observed the work of the management of the company must be accepted as a responsible commercial, economic and social task whose execution is room for everyone. The first line of the struggle for a more efficient use of waste was won when the level of the country understand the importance of fortification tasks and socio-political power, socio-political community and love their responsible bodies.

Introducing a single material, always open for new ideas and new opportunities. For a country is irreparable damage, which in this business only some organizations and a small number of experts.

Thus, observed the work of the management of the company must be accepted as a responsible commercial, economic and social task whose execution is room for everyone. The first line of the struggle for a more efficient use of waste was won when the level of the country understand the importance of fortification tasks and socio-political power, socio-political community and love their responsible bodies. Society must act as an incentive for scientific and educational organizations. They have to equalize conditions of business for the whole country, in order to prevent the phenomenon of abuse of these valuable resources.

2. THE IMPORTANCE OF SECONDARY RAW MATERIALS

Ability and efficiency of each country's economy is reflected in the maximum use of indigenous raw materials. One of the significant opportunities to expand the raw material base is intensively collecting the available quantity of waste from all sources. Their use contributes to the slow exploitation of primary raw materials - mineral resources reduces environmental pollution, encourage the development of the research of new technologies and technological processes in the recycling process, new applications and products from waste, as well as to increase employment.

Industrial and other useful waste, waste products that are no longer used for the purpose for which they are intended for failures or obsolescence as is the case with electrical and electronic appliances, possessing a potential which is in the form of secondary raw returns in a new round of or used as an energy source.

Advantages of the use secondary raw materials

With the development of production, consumption and standards, and increase the quantity of waste, specifically the E-waste, and improving methods of their exploitation we get the primary processing of raw waste is technologically simpler and cheaper than obtaining primary raw materials. Increasing application of secondary raw material is provided:

- keeping reserves of primary raw materials,
- saving energy and reducing processing costs,
- improving the cost of labor, increase income and competitiveness in the market,
- replacement of imported raw materials and energy,
- increasing employment and creating better living and working conditions,
- encouraging the development of its own technology and innovation for primary processing waste - recycling,
- protection of natural and man-made values the environment (Jankovic, 1987. pp 154)

3. MODELS OF COLLECTION OF E-WASTE

In further text we will indicate the current models of collecting e-waste, which is used in a many countries. These models are mainly solid waste, hazardous materials, waste, e-waste, in the municipality or district, and each of these models has definite positive-negative or aspects, which will be mentioned.

Model 1 - Collection of waste through occasional action (Model Drop-off event). Waste collection through occasional action (figure 1) is a model in which residents bring their E-waste in a separate location envisaged in the context of this action (building municipalities, schools, community centers, etc.). These actions are mainly implemented in cooperation of

non-governmental organizations, primary and secondary schools and operators, or recyclers. Activities include the adoption of e-waste to the collection point, unloading from vehicles, sorting and packaging waste, and transport operators to the end. These activities take place without direct cooperation with end operator and collected E-waste is a problem because it is the new generator of environmental pollution.



Figure 1. Collection of waste through occasional action (www.google.com)

Table 1. Positive and negative aspects of model 1

Positive aspects	Negative aspects
A small preliminary expenses.	Each event has a special plan that requires higher costs.
Options specific sponsorships (municipal administration, the Fund for Environmental Protection, etc.).	Conducted by volunteers, which need their education and motivation.
Using volunteers, thereby reducing labor costs.	Limited time for sorting waste. It is difficult to plan appropriate human resource needs.
Attract media attention to the problem of e-waste.	Finding locations can be a problem.
Collection of larger quantities in a short time.	Each location has its own specifics that are difficult to predict.
Limited (briefly) the duration of the event.	The collected e-waste must be transported immediately to the final operator.
The population gets used to model the collection of certain types of waste at these events.	
A good model for rural communities and collecting for the first time.	

Collection of E-waste by model 1 is very present today. Very often in the media can find information of the implemented actions. These actions are usually collected several tons of E-waste. However, on an annual basis of these actions is very little that this model of collecting E-waste contributed to the significant level of reduction in households. The importance of these actions is to inform the people about the importance and necessity of organized management of E-waste, especially young people. These actions are earmarked containers that are placed in appropriate places where citizens during one or more days can be disposed of E-waste.

Model 2 - Recycling centers or collection centers (Model Permanent collection facility). Recycling centers and companies for collecting e-waste have adequate working time when

citizens can bring their waste. These objects can be part of other utilities, such as centers for recycling and sorting waste, landfills or disposal of hazardous materials. E-waste is waste, large size and volume, requiring a large space for unloading, sorting and storage. Existing facilities for processing and selection of municipal solid waste, often do not correspond to the need of a large space in a small period of time and do not meet all the requirements for the storage of hazardous waste.

Table 2. Positive and negative aspects of model 2

Positive aspects	Negative aspects
Increased availability, since there is no limitation in the term of delivery. The classification is performed in the same location so that the costs were reduced.	It must constantly employ trained staff.
Longer time selection allows a careful selection of components and devices from the waste that can be reused.	With the extension of working hours needed more staff.
It can work in conjunction with any other collecting hazardous waste (batteries, liquid waste).	Existing locations require an appropriate landscaped area.
Citizenship can be easily introduced to the procedure, treatment for disposal.	Frequently there is no possibility of physical location extensions.
Permanent staff is trained.	It is difficult to find a location for a permanent facility. Obtaining a permit for this activity requires long time.
	Quickly store larger amounts of E-waste requires timely transport to the final operator (recyclers).

Model 3 - Applications of collecting solid waste (Model Bulky waste collection programs) programs collect e-waste exists in certain urban areas where actions are carried out massive collection of solid waste. Most often this is done during the action of spring cleaning, scheduled waste collection or the collection of waste from illegal dumps. E-waste is under this model are collected together with other solid waste massive. The collected e-waste is transported to a central place foraging and makes his selection of other solid waste. These actions must be carried out in cooperation with the ultimate operators (recyclers). If the collected e-waste is not stored properly or are not transported immediately to the operator introduces a new generator of environmental pollution.

Table 3. Positive and negative aspect of model 3

Positive aspects	Negative aspects
Suitable for the population.	Increased costs due to an increase in the number of participants (employees of utility companies, volunteers, workers for loading, sorting, transport to recycling plants).
E-waste can be turned into an existing solid waste collection program. The collection may be scheduled at a specific time when the population of.	Increased transportation costs.
For Citizenship is free, as is done through the existing municipal waste removal program.	Waste can complete again in the illegal landfill.
Reducing costs through increased volumes of waste.	Re-use of parts of E-waste is possible due to the negligence of warehousing, storage and transshipment.
	The damaged parts may cause injury or other environmental pollution.

Model 4 - Collecting in retail stores (Model Retail collection). Retail stores may allow residents and businesses to make certain types of e-waste in them. This type of partnership is suitable for companies in the retail electric and electronic products. Some companies give discounts for the purchase of new products if they bring an old. The system of "new for old" has so far proved possible efficient way of collecting obsolete electronic and electrical products from the household. A number of operators in cooperation with companies which trade is carried download old appliances when buying new ones, where there is a price list of obsolete and submitted devices.

Table 4. Positive and negative aspects of model 4

Positive aspects	Negative aspects
The flexibility of the program: an ongoing program or a one-day action.	Retail stores do not have adequate storage space.
Advertising can increase the number of customers in the building.	Download obsolete products is not a core activity of the company and does not have sufficient staff to perform these activities.
The seller may advertise action "new for old".	It is difficult to get approval for these activities.
The possibility of sharing costs with the seller of equipment	Little or no motivation of employees for collection, storage and dissemination of collected waste.
The seller acquired the reputation of the company that cares about protecting the environment.	

While in Serbia there are positive examples, traders still do not use this option in a satisfactory manner. The delay application of this model to collect E-waste is created due to the low efficiency and speed of reimbursement from the Fund for Environmental Protection operators. Exercising the right to a voucher, discount when buying a new product or money, can be achieved only if they surrender devices in a good, complete condition. In these traders carry out actions (not all) transport of old devices to their warehouse for the reception. Using the model of collecting E-waste on a "new for old" should become the rule rather than the exception. Example successfully started the action "new for old" actions which are realized (with some delays) in Tehnomanija, Tehnomarket, Samsung, Vip... Besides these companies are very positive examples of computer equipment shops that offer the possibility of buying or replacing old computers (eg. "Laptop service" - Belgrade, discount PC - Belgrade, etc.) (Nedić, 2012. pp 330-334)

4. RECYCLING E-WASTE

Recycling can be defined as the separation of materials from waste and its reuse. Includes collection, separation, processing and manufacture of new products from the used items or materials. It is very important to first separate waste by type of waste. Many waste materials can be reused if they are collected separately.

Recycling of waste electronic products is significant, not only from the viewpoint of environmental protection, but also to obtain undamaged electronic components as well as the expensive precious metals that are part of the printed circuit board, as the main component of all electronic products. Recycling E-waste has a double significance, except for the reduction of pollution, and allows saving of scarce resources which are extensively used in various electronic appliances.

It can be said that there are two established approaches to recycling E-waste:

1. The first - which does not require any disassembly of any waste selection and being crushed, and then select for certain types of materials (magnetic and other forms of separation)
2. The second - which requires some degree of disassembly / reassembly and application of appropriate technologies for recycling each material separately (aluminum, copper, silver, gold, platinum, etc.). Both proceedings require costly and complex technology and optimum quantity of waste to ensure the cost-effectiveness of recycling.

4.1. Problems of recycling e-waste

What recycling E-waste is generally aims to:

- to increase the reuse, recycling and other forms of recovery, leading to a reduction in the quantity of waste disposed of in landfills or incinerated,
- to improve the environmental performance of all actors involved in the life cycle of electrical and electronic equipment
- to reduce the depletion of natural resources (metals, metalloids, oil, etc.).

The above are two basic approaches to recycling E-waste, however, be used one or the other for sure is that it is so dirty technologies (examples of recycling of lead, cadmium, mercury, ..), that regardless of the high eco-standards significantly pollute the environment in which the plants are located. It should also be borne in mind that a large number of rare metals contained in the E-waste is in relatively small quantities and for their recycling requires significant amounts of pre-selected waste, in order to ensure as much as economical recycling. Yet the content of these metals in the E-waste is generally higher than in the ore from which it was obtained. Nowhere near done research work in the field of recycling e-waste, especially when one takes into account the fact that the E-waste in the near future will be the main source of strategically important and rare metals.

4.2. Contents and hazards of E-waste

If you do not act according to the prescribed standards, and toxic heavy metals such as cadmium and mercury find their ways to permanently contaminated land and groundwater. How toxic and hazardous are substances from E-waste can be seen in Table 5:

Table 5. Hazardous substances found in E-waste

Substance	What damages
Beryllium	Lung (cancerous)
Chrome	Lung, DNA
Mercury	Nervous system, kidneys
Cadmium	Kidneys, bones (cancerous)
Trichlorethylene	Liver, kidney, immune system
Bromine	Growth, sexual development
Lead	Brain, nerves, fetus

How important waste management can be seen in the case of plastics from e-waste. Plastic parts contain bromine appliances that makes it resistant to flames. Their removal from old appliances, recycling and processing into new pieces of plastic, if the above does not control

this process, toxic bromine may be contained in the new packaging and be sent into the food chain.

One computer is made from 1000 different materials. Only one computer chip contains more than 350 different materials, one of which has a large number of toxic effects. According to a publication of the US government, 6.4% of employees in manufacturing chips are suffering from the effects of various chemical substances (number of defects in the fetus at pregnant women is much higher than the average at the state level). A large number of substances cannot be recycled or managed. In order to manage this waste is necessary to reach the appropriate parameters and criteria related to the architecture of the personal computer.

In the manufacture of computers and other electronic equipment is used a number of different materials:

Heavy metals:

- Barium: to increase the light intensity on the monitor,
- Lead: when soldering of components, to monitor the hard drive and the backplane,
- Cadmium: when soldering of components in rechargeable battery and backup lights on the monitor (carcinogenic),
- Chromium (by oxidation of highly toxic, carcinogenic and etc.).
- Cobalt
- Copper: 12 - 25% of transformers and parts of the base plate,
- Nickel in rechargeable battery and on the base plate (toxic)
- Strontium: an integral part of the linings to accentuate the brightness of the monitor,
- Thallium: application in chips and tiny built-in parts,
- Bismuth
- Zinc,
- Tin: application in soldered joints.

Precious metals:

- Gold, platinum, silver, palladium: applying patches or plugs in certain interior components.

Other metals:

- Aluminum, antimony, arsenic, stainless steel, iron, gallium, germanium, indium, manganese, mercury, selenium, silicon, tellurium.

Gases:

- Nitrogen, hydrogen, phosphorus hydrogen, silicon hydrogen

Acids:

- Hydrochloric acid, liquid acid.

Plastic:

Up to 40 different plastics, primarily Polyester, poliamid, phenol and epoxy resins (such as ABS and PVC), often with different and partly very dangerous to health against flammable elements that prevent autoignition mass (for example, polybrominated biphenyls, antimony trioxide.) (H.-Y. Kang, J. M. Schoenung, Electronic waste recycling, 2005, pp 368-400)

5. DEVELOPED COUNTRIES – INITIATIVES AND PRACTICE

Developed countries, is a term commonly used to categorize the technically advanced countries have significantly developed its own industrial production and wide international cooperation. However, what interests us is how much they actually developed in terms of E-waste, if you have innovative strategies and technologies that are used in this regard.

It is believed that electronic products became E-waste at the end of it century. Mentioned most often waste includes used or obsolete televisions, computers, printers, photocopiers, cell phones, fax machines, home appliances, lighting, games, etc. The fate of E-waste is managed in very different ways, in different parts of the world.

In developed countries there are conventions, directives, and laws governing the management of E-waste, mostly focused on extended producer responsibility. Specifically, manufacturers are required to return the collected e-waste by retailers and local governments, as well as to safely destroyed or recovered material constituting scrap E-waste. However, high costs for the proper collection, disposal and recycling of lead to the delivery of large amounts of e-waste in China, India, Pakistan, Nigeria and other developing countries. Faster growth of electronic waste in developing countries than in the developed world suggests an expansion of an expanded, cheaper and informal processing sector, effective in its own way, but also very dangerous. When the waste with hazardous contents, which need special treatment, and could no longer be simply thrown in the landfill, it was a simple solution that boils down to being loaded onto ships and trains, and transported outside of the developed countries, developing countries (China, India, Pakistan, Nigeria, etc.). As can be seen in Table 6, the US, EU, and Japan are the leading manufacturers of E-waste, and leading exporters, while the largest importers are China, India, and West Africa. (B. Robinson, 2009, pp 183-191)

Table 6. Some international sources of electronic waste and its disposal, recovery and dissemination: estimates for the year 2010

Country/region	From households (in million t)	For landfills, incinerators (in million t)	Recovery by Country (in million t)	Exported (in million t)	Imported (in million t)
USA	8.4	5.7	0.42	2.3	/
European Union	8.9	1.4	5.9	1.6	/
Japan	4	0.6	2.8	0.59	/
China	5.7	4.1	4.2	/	2.6
India	0.66	0.95	0.68	/	0.97
West Africa	0.07	0.47	0.21	/	0.61

Initiatives in developing countries related to the E-waste

Basel Convention - most important of these initiatives, which is focused on E-waste is the Basel Convention, which is based on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

WEEE Directive or the Directive on Waste Electrical and Electronic Equipment - EU Directive was written into law in 2003, and adopted by all Member States in 2007. The Directive covers all types of electrical and electronic devices sorted into 10 categories, and sets targets for their collection, recovery and recycling.

3R step - 3R "Reduce, reuse, recycle", an initiative put forward by Japan at the G8 summit in 2004. Japan has this program promoted the first in his country, and later on the international scene. Reduce - prevent the formation of large amounts of e-waste, is introduced as the first priority. Among other things, the objectives of this initiative are the improvement of technologies for reuse, cooperation with developing countries on recycling and reuse of e-waste, and removing barriers to the international movement of recycling materials.

Legislation in the USA - While the US Congress has not ratified the Basel Convention, a number of states in the US have enacted laws dealing with e-waste. These state laws, however, do not restrict the international movement of electronic waste. (E. Šehić, 2013, pp 87)

EUROPEAN UNION - ADOPTED DIRECTIVES FOR SOLVING PROBLEMS OF E-WASTE

In the 25 EU member states have adopted a number of regulations at the community level in conjunction with E-waste, which aims to "preserve, protect and improve the quality of the environment, protect human health and use natural resources wisely and rationally" (European Commission- WEEE Directive, 2003).

The European Union is 13.2.2003. has adopted two Directives and are related to the problems of electrical and electronic waste.

- *"Waste of Electrical and Electronic Equipment" (WEEE) - Directive on WEEE, and*
- *RoHS (Restriction of the use of substances hazardous) - Directive on the Restriction of the use of hazardous substances.*

These two Directives became applicable law EU 01.07.2006. and from this date, any product that does not meet the criteria of the Directive will not be sold in the EU.

WEEE Directive aims to improve the management of electrical waste and to encourage manufacturers to produce devices having planned their recycling. A key part of this directive is that manufacturers are responsible for the costs associated with the collection, recovery and recycling of waste electrical and treatment. RoHS Directive complements the WEEE Directive limit the amount of potentially hazardous materials contained in the products, i.e. electrical appliances and electronic devices.

WEEE Directive aims to improve the performance of E-waste through:

1. Selective collection of E-waste using appropriate systems, which preserve the integrity of the devices and their potential for recovery,
2. The rate of collection which must be at least 4 kg of e-waste per capita per year,
3. Individual producer responsibility; rates of reuse, recycling and recovery ranging from 50% -80% depending on the category of the device, they must be met by manufacturers of electronic and electrical equipment, and
4. The provision of providing information to end users whose participation is essential for the high rates of collection and recycling, through the marking of packages, as well as providing information on treatment plants (taking into account the composition and structure of electrical products).

Sustainable system of recycling E-waste in Serbia

Along with analysis of countries that are members of the European Union, and those who are not interested economic operators to become, as appropriate example can be taken and the status of candidate country for membership in the EU, our country, Serbia.

In Serbia, waste management is pretty much obsolete. 2003 in the Republic only 50% are rounded up, of which approximately 63% related to the collection of municipal urban waste and around 20% of industrial waste. The waste is not collected mainly from rural areas where the waste is usually burned or accumulated in landfills and illegal dumps. Approximately 170 official landfills were identified, none of which did not meet the criteria of proper urban landfills. Such a large number of landfills was great for the proper monitoring and control.

By 2010, one could say that the situation has not greatly changed. In the meantime, were adopted two laws on environmental protection and a host of secondary legislation which regulates, among other things, and this matter was adopted and the National Waste Management Plan (which is the Republic of Serbia was under it in 28 regions) with the aim of

establishing a proper waste management. With regret it must be noted that some of that written implemented. Still on the territory of the Republic have almost the same number of urban landfills and an even greater number of illegal dumps (dumps) that do not meet even the basic criteria of proper municipal landfills. You could say that here and there the establishment of mostly private companies for recycling of certain recyclable materials such as PET, metal, paper, electronic waste, batteries, ..., and establishing a regime of proper sorting and collection of municipal waste, the situation improved somewhat. However there is still no implementation of the National Strategy in this area.

What is being done in Serbia?

How to Serbia would't become a used warehouse, obsolete or used electronic equipment, it is banned import. Recycles is below 10% E-waste, and that percentage is increasing. The adoption of the prepared draft Law on Waste Management and the Law on Packaging and Packaging Waste. When this happens, it will be easier and more profitable to engage in recycling.

In Serbia, there are only a few companies that are registered for processing and treatment of low speed electric and electronic waste. The best-known companies in the area are "Eko-metal" from Vrđnik, "BiS IT Recycling Center" from Omoljica near Pancevo, and "Jugo-Impex E.E.R" doo from Nis, and they have adequate facilities and equipment for the recycling of e-waste. Recycling is based on the manual disassembly into parts, selection for metals, plastics, cables, etc., that are processed or transmitted in national capacity for further processing, while the part is exported unprocessed parts (monitors, printed circuit boards, etc.). However, operational problems are many. The main problems are the lack of organization of the collection and selection at the level of Serbia, incompetence enterprises utility for handling e-waste, insufficient or no knowledge of the users of electronic equipment on the harmfulness of its delay after the cessation of the use of the landfill problems in transport to recycling companies, very difficult to export Selected The E-waste to companies in the EU for recycling, etc.

Electronic waste thrown citizens are usually picked up and leaves the city dump. A particular problem is that the mills in trucks broken and crushed monitors and TV screens, so that the toxic dust and glass spread and contaminate all around. Of the 200 tons of garbage, how much daily extradite, for example, on kragujevac landfill, about 10 tons makes it hazardous electronic waste. (D. Dilparić, 2013 pp 126-145). All of the above, as well as a host of other problems in the work of municipal inspection services and imposes the need as soon as possible through the adoption of the Law on Waste Management, educating the widest range of participants in dealing with E-waste management and training, utilities and other services.

6. CONCLUSION

E-waste is a serious problem both at local and global levels. At first appeared as a problem in developed countries, and later spread to developing countries. The amount of e-waste is growing rapidly because of the consumption of appliances are changing rapidly in a short period of time resulting innovation. As for Serbia, were launched some initiatives, for example, the formation of collective operators, in accordance with the legislation, which may establish a sustainable system of waste management of electrical and electronic products. As can be seen, this model puts the producers and importers, which indicates that it is a kind of model of extended producer responsibility, namely, that the manufacturer is responsible for the entire lifetime of the product, which includes a management system in electrical and electronic waste.

When we are often, unfortunately, in technical jargon, the term waste no different than all the frequently used - secondary raw materials. All wastes, namely, incurred in the process of production and consumption have a material substance and energy that is, the application of certain technical, technological and chemical processes can be adjusted, lead to a form suitable for recycling and exploitation - become secondary raw materials. Manage E-waste, if properly implemented, can also be described as an example of "urban mining". The general aim of manipulating E-waste is to establish a system for separate collection of electrical and electronic waste. It need to be classified on the basis of the categories of E-waste for its continued use, care and protection of the environment and human health.

LITERATURE

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SOFT HUMAN RESOURCES RATIONALIZATION OF WORK IN ORGANIZATIONS

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In order to knowledge become efficient we need learn to see threes and the wood, need learn to connect the things.

Peter F. Drucker

ABSTRACT

Organizational effectiveness is the goal of every organization (profit and non-profit), hence, there is a constant need for it. One of the ways in which it can radically be improved is through the use of various rationalizations of business aspects (technical, economic, personnel). The key point in the overall organizational rationalization of work is constituted by the human resources realization of work which enables and facilitates overall rationalization of work in the organization. The human resources rationalization pertains to:

- a) technical solutions which include workplace design, calculation of optimal number and quality of employees, remediation of surpluses and deficits and similar technical solutions that are related to human resources, which is generally well-known in a discipline of human resources management and pertains to the so-called technical or "hard" human resources rationalization,*
- b) human resources rationalization in the sense of rationalization of each separate work and people management (leadership) which is less known and applicable, and they pertain to the so-called psychosocial or "soft" human resources rationalization of work which is primarily the rationalization of personal work and management of people in an organization.*

This paper explicates soft human rationalization of work, namely, the rationalization in the part of personal efficiency at workplace and management of people in business organizations through its basic three forms: a) work rationalization at an individual level; b) work rationalization at a group/team level; c) work rationalization on the cultural level.

Also, in this work, foundational possibilities are mentioned about how can and how should the soft rationalization of work be implemented based on the mentioned shapes of manifestation: individual, group/team and cultural level. By applying the mentioned soft human resources rationalizations one may revolutionize organizational effectiveness, which is a necessary supplement to hard technical rationalization of human resources management.

Keywords: *human resources rationalization, soft human resources rationalization, individual rationalization, group/team rationalization, cultural rationalization, work effectiveness in a company, human resources management*

1. INTRODUCTION

Life and work in a business organization undoubtedly requires effectiveness (quality and quantity of work performance, continuous improvement of competitiveness and profits). In order to achieve the mentioned goals, a very important place belongs to the work rationalization. The rationalization of work may be considered as a set of measures with which by making changes in work organization, management of production resources, devices, material, energy and human resources the effectiveness of the company is improved while at the same time optimizing the work effort.²⁵ The overall process of rationalization, on a basic level, can be divided into several areas (cf. Kunze, 1971 according to Žugaj and Bojanić-Glavica, 1996., 107):

- a) Technical rationalization (in the area of the production process);
- b) Economic rationalization (in the area of other phases of process reproduction, such as for example: purchasing, finance, sales);
- c) Social or, more precisely, human resources rationalization (in the area of people and human resources of the organization).

Human resources rationalization may be considered as a set of measures and activities which should be done by people in a company, so the optimized use of the human resources of the organization may be achieved. In the managerial theory, it is usually studied through disciplines of the human resources management (predominantly technical, or in other words, "hard" technical human resources rationalization of work) and business leadership (predominantly "soft" human resources rationalization of work). "Soft" human resources rationalization can be considered as a set of measures in a wider area of human resources management and management of people (organizational climate) to whom are eliminated tensions, conflicts, moodiness, work absurdity, passivity, indifference to life and work in company as well as similar psychosocial disorders in a company, which is related to a suboptimal and organizational climate in a company, but also it applies to a technical human resources rationalization in a sense of a necessary number and structure of employees.

Thus, basic human resources rationalization can be divided into:

- a) Rationalization with a purpose to achieve and maintain an optimal number and quality of employees at specific workplaces which can be achieved for example by analyzing and designing workplaces, determining the necessary number and structure of employees and other basic functions of human resources management.
- b) Rationalization in individual and group effectiveness in an organization. In every organization, people are important in carrying out various tasks, and problems of man's work in a company are always expressed in a psychosocial, that is, "soft" organizational sphere. Previously mentioned organizational problems can be fundamentally divided into:

²⁵ Some authors talk about the goal of minimizing of effort at work, but it is known from experience that an "easy" job can be a big enemy of work, because people loosen up and work less and weaker than it would be optimally. Also, one other extreme is also not acceptable in relation to the maximizing of effort at work and the creation of the so-called "impossible workplace" from a well know standpoint of exploitation of work force "burnout" and subsequently to that a long-term decrease in productivity.

- b1) relationship problems between an employer and employees (free-lancers);
- b2) relationship problems between management and non-management (problems with setting up and maintaining formal as well as informal hierarchy);
- b3) problems of direct relationship between a man and his or her work (problems with maintaining motivation in relation to jobs which are performed at workplaces), and;
- b4) relationship problems between two people in organizational processes (problems of interpersonal relations in an organization)

It is easiest to implement the "hard" technical human resources rationalization or human resources rationalization in relation to things (workplace design, determining the necessary number and structure of employees at workplaces, etc.), because they can be technically solved by using the existing technical knowledge, and without using abstract thoughts and research (diagnostic) techniques, however, even its improvement and implementation requires cultural climate, rational mind and finally the application of technical solutions (for example, workplace analysis, human resources planning, ergonomics and psychology of work (adjustment of work for human and vice versa), which makes it a technically demanding procedure. Also, technical "hard" human resources rationalization is dominant when somebody is learning a new job (when it comes to introducing someone to a new job and selection through training when an employee is about to get trained for work at a specific workplace), and later it depends upon the suggestions of employees for whom the work could be rationalized for.

As the human resources organization, in a technical sense, is being managed and as the employees manage the technical complexity of work, the importance of social and psychosocial rationalization is growing, namely, an effective inclusion into a group as well as methods and procedures that promote individual and group effectiveness. Social rationalization can be a demanding task because an employee needs to fit into a world that can be different than his. When an individual has joined the group, having socialized himself with the working group and the company, an importance of personal, psychosocial rationalization is growing so he or she can develop key competences and be taken in consideration for advancement.

The aim of this paper is to research and clearly show the "soft" human resources rationalization of work²⁶ which can be broken down into following segments: individual, group/team and cultural and offer solutions for improving the "soft" human resources rationalization.

2. SOFT HUMAN RESOURCES RATIONALIZATION OF WORK

Authors Laird & Laird, (1964). have called the human resources rationalization in a psychosocial sense as the psychological efficacy / efficiency which they define as such use of human capabilities that can bring optimal results with the least amount of effort and losses.

Due to the fact that every human being has different physical and mental capabilities, has different experiences and goals, has standards of different social groups, there is no best way

²⁶ Technical or "hard" human resources rationalization of work is being studied as a part of human resources management (staffing) through its fundamental functions for example workplace analysis and design, human resources planning (calculation of the necessary number and structure of employees etc. cf. Buble (2006). Thus, it will not be a subject of this paper.

to determine efficiency that would suit each person.²⁷ Thus, every man, as an individual, has his or her own balance of efficiency, and it is ideal that he or she applies it as such at work and outside of it. In order to achieve an optimum efficiency within the organization²⁸ it is necessary to acknowledge three aspects of soft or psychosocial human resources rationalization:

1. Personal, individual efficiency or the so-called psychological rationalization. It pertains to an individual, his or her personal interests, development in a direction of balancing the levels of ambition and possibilities in the company;
2. Efficiency in relation to a work group or the reference social group in the company the so-called group/team rationalization. It pertains to interpersonal relations, team work and social efficacy.
3. Cultural effectiveness - compliance of values due to which some nations are more effective while working in group than others within organizational processes (author's remark). Group, collective values (culture) about that how something should be done, what can be / cannot be done, may lead to a better or poorer organizational effectiveness. Seemingly identical groups of people, but with different internalized cultural values can have very different levels of efficiency.²⁹

Psychosocial rationalization that falls into separate form or rationalization is efficiency in relation to things, namely, the working methods, procedures which save effort and time. Although this type of rationalization could fall into, based on some authors, technical rationalization, it actually falls into psychosocial, because only people can conduct rationalization which is in essence a mental process (application of the healthy human reason). Thus, this healthy human reason needs to be freed from social and cultural restraints (for example, things are done in traditional manner, although it inefficiently, but it should be done this way). Namely, whether an employee will join the process of rationalization at his own company depends on the socialization, upbringing or the values internalization (culture) or employees.³⁰

2.1. Individual / psychological rationalization of work in a company

²⁷ Thus, W. F. Taylor (the founder of scientific management) has based his rationalization with heavy physical jobs on the selection of above average strong and enduring man and on them he applied his methods of work. Namely, through experience it was observed that there was a big difference in efficiency among various people who were performing the same jobs as well as different ones, and in accordance with that insight, Bahtijarević-Šiber (1999.) divides employees in BCG-matrix in four categories: stars, towing horses (cash cow), questionnaires (wild cats), clogs, for whom the company must develop different staffing strategies.

²⁸ W. F. Taylor rationalized ways of using muscles which gave better results with less effort, but he failed to take in consideration the psychosocial rationalizations of an injured human dignity and animosity, because he acknowledged only the "tangible" part of that which he was doing, and the intangible psychosocial rationalization slipped away to him. The mentioned failure is a criticism of taylorism because it constantly kept causing hardships and inefficiencies in organized work. Thus, after Taylor, the main interests of organizational rationalization lie in exactly the psychosocial aspects of rationalization of work, for example personality, group cooperation, interpersonal relations.

²⁹ Thus, for example, in context of football successes and mentality (culture) one may here that "Germans can achieve things when they objectively can't", and in football successes of certain nations the main problem may be the mentality in which they underestimate the opponent or drastically decrease the level of commitment once they think a satisfactory score has been achieved.

³⁰ A vast number of suggestions for the rationalization of work in Japanese and German factories needs to be thanked to socializational factors of general and organizational culture in which management plays a crucial role.

Psychological rationalization implies such use of individual human capabilities that brings optimal results with optimum amount of effort and losses. Efficiency and rationalization in actuality is a state of consciousness and healthy reasoning ability, namely, in order to have something rationalized, improved, people must have an affinity for seeking, trying, modifying and finding new ways of doing things, without them having to submit to a routine, established, general way of performing tasks. Authors Laird&Laird cite the following ways of individual / psychological rationalization (summarized and paraphrased Laird&Laird, 1964.:11-213):

1. The best way to increase personal efficiency is to find and use efficient working methods;
2. The best method with which a manager will increase efficiency of his or her employees is to eliminate disturbances, irritations and perturbations (frustrations) of the so-called psychological counteractions;
3. The best method which could cause in people a desire for change in working procedures is to have managers ask for the participation of employees in form of help with planning of more efficient working procedures (the so-called operational employee participation³¹);
4. The best way to increase someone's social efficacy is to cause in other people a feeling of complacency and to show them that they are being appreciated/respected³²;
5. Efficient concentration at work is best achieved in such way to warn people who are causing disturbance at work;
6. Efficiency in reading is best improved if one is directed during the reading toward the meaning or sense;
7. Efficiency of recalling is increased when one uses a sense of memorization;
8. Tasks are most efficiently learned when one indeed shows intention to learn;³³
9. Efficiency of a working day will increase by having the work organized in a such way to have easier and harder tasks mutually interchange (more demanding, creative and unstructured tasks should be solved at a moment when a person is completely fresh which occurs most often at the beginning of a working day, and the routine (structured) tasks should be performed when he or she is not fresh any more, or in other words, later after the unstructured tasks which is more often in the second part of the day). Also, efficient employee honors the fundamental principles of sequential order of work: urgent and important. So, first urgent tasks should be solved and then important tasks;
10. The best way to preserve energy of an employee is to have him or her taught how to be calm/relaxed during work (people usually get tired mostly as a result of psychosocial tension at work, and not so much of the work itself, in a calm working atmosphere it is possible to achieve high performances with low lassitude and fatigue). Also, the most operational muscle is one which is loose and not shriveled/tense, in line with that relaxed, not having brain under stress;
11. The best way to assess someone's ability to perform a certain task is by analyzing what does the work require to have performed, and what does a candidate have (comparison

³¹ Operational employee participation should be differentiated from strategic participation which pertains to the participation in strategic issues of the company (investments, distribution, company direction and questions alike that pertain to the structure and developmental orientation of the company).

³² This is practically not possible to perform without knowing of people and human relations and their expectations. Namely, different people expect different treatment in terms of appreciation and respect.

³³ Here, one can apply a proverb: "Blessed is the one who knows that he doesn't know, but wants to know!"

of work requirements with specifications of job executioner - the founding principle when making a decision is "the right man at the right place at the right time");

12. The best method to prevent employees from avoiding work (so-called procrastination) is to achieve group cooperation with setting the norms of working performance as a standard (social control is better than managerial control).

In context of psychological rationalization and personal efficiency, indirect indicators of a very efficient employee to the management are:

1. Efficient employee learns quickly details of work. This gives a special advantage to an employee who has some earlier formal education, experience or he / she went through practical training. An employee who has difficulty studying and studies slow usually he or she is less useful in a modern organization.
2. Efficient employee works without a need to be constantly supervised and controlled. The control which demands constant supervision is actually inefficient because it is costly; more rational approach would be occasional control. Thus, constant autocratic supervision may decrease efficiency.
3. Efficient employee does not use excuses and justifications for his or her work performance.³⁴
4. Efficient employee finds ways to have to job done better.³⁵
5. Efficient employee is generally cheerful (positive thinking) and he/she is inclined to cooperate on project tasks.
6. Efficient employee shows responsibility and a sense for work.³⁶

Indirect indicators of efficient work that, depending upon the situation, can also be indicators of inefficiency are:

7. His / her workplace or table are fully stuffed or maybe excessively tidy (perfectionist) which can mean that he/she is not sufficiently busy, or that he/she loses time on side things which have nothing to do with efficient work performance.
8. Employee is taking his work at home - which can mean that he is inefficient and that he may not perform his work duties during the scheduled regular working hours, or that his manager is giving him more work to do than he/she is required.
9. Employee is working without obvious effort - which can mean that he/she is really efficient and capable (he/she performs tasks with "effortless ease") or that he is procrastinating at work (he/she works less than he/she is required)³⁷

34 There is a proverb which can pertain to an efficient employee: "The one who wants will find a way, the one who does not want will find an excuse" (cf. Tudor, 2007.).

35 This also depends on the type of manager who is in charge of employee. Namely, democratic manager may be impressed with that (because managerial purpose is achieved in that way "to make an employee productive"), however, autocrats who want to have all their employees under control, to envision everything on their own and for everything be credited, may not like this. That is why certain managerial theories of leadership suggest to an employee and a manager to get to know each other and to adapt.(Yukl, 1996.).

36 Meeting deadlines, quality and quantity of work is an indicator of an efficient employee.

37 Here we can specify almost anecdotal approach to taking examination at one university teacher's class before implementation of Bologna system of studying. Quoted: "A student who I estimated that he or she didn't change during this class will not pass the exam. A skinny student needs to put on some weight, and a fat one needs to lose some weight. Should I notice that he/she didn't change sufficiently, this means that he/she didn't study enough for the exam, hence, he/she cannot pass the exam of my course." The mentioned professor was a supporter of theory that a rested and unexhausted student (employee) procrastinates at work, so by having this attitude he may not get a passing grade of his course.

10. He/she shows signs of greater stress - which can mean that he is not up to the job, and not necessarily that he/she is an efficient employee. Efficient employee can be completely fresh at the end of a workday.³⁸
11. He/she never loafers at work - although occasional interruptions may serve as leisure time and increase employee efficiency.

The biggest individual enemies to efficiency at work are actually of psychosocial character. In fact, people invest in their work a lot of intangible aspects (so-called "soft organizational variables") - disappointment, monotony, dissatisfaction, different aspects of work and life in an organization, counteraction (frustration), irritation, nervous tension. Feelings of injustice and unfair undertakings, failures and demoralization, disaccord among the members of a working group also cause tensions that cause strains and tiredness, and without efficiency. The mentioned psychosocial efforts can be divided as (Laird&Laird, 1964):

- a) highly set aspirations (pursuits, ambitions). They lead to frustrations so organization life may become tense and full of barren strains;
- b) social strains due to intolerable colleague or manager.

From psychosocial standpoint, effectiveness means the use of capabilities in a way which brings optimal results with rational human strains and frustrations.

Also, in order to achieve efficiency at work, someone's orientation in self-development may also be important: self-learning, self-upbringing, self-organization (Lauc, 2000), which belongs to personal efficiency because it completes a man, and at the same time is the best means against routine and limitation of development. Self-development often depends on self-motivation employee, and good organizations can finance seminars which have nothing to do with work, but may have favorable results in the long run, because they encircle personal efficiency of an employee. A good manager also knows that by developing of his associates he will become a better manager.

2.2. Group, team rationalization of work in organization

Efficiency of people of work cannot only be reduced to their knowledge of work. It includes, for example, that one is not irritated by other employees nor that they are irritated. Efficiency does not only depend upon special methods or a new machine. It is determined by overall work situation. People, methods, machines - all of this is mutually interconnected when determining the level of productivity and efficiency.

Studies based on a topic why some groups are more successful than others (Sternberg and Williams, according to Goleman, 1997), confirmed that those groups whose human relations do not allow collective sharing of capabilities achieve significantly poorer results. Thus, it was observed that the main "restrainers" of the group efficiency are persons who are eager to control and dominate, and the "ballast" persons, namely, those employees who do not participate in productive work. By far the most important factor for achieving maximum product quality of a certain group was a degree to which extent its members were in condition of willingness to create inner harmony who allowed them to use the full potential of each separate member. An overall performance of harmonious groups was improved by the

³⁸ According to Deepak Chopra (2004.), the best work from us flows effortlessly, or in other words, with effortless ease.

cooperation of that particular member who was especially gifted, while groups in which there were more hitches, they were significantly less capable to capitalize on the fact that within their group they have especially capable individuals.

In groups in which exist high levels of negative emotional and social charge - whether it comes from rage, rivalry or resentment, envy - employees cannot give their best. However, harmonious interpersonal relations allow to a group to maximally use the capabilities of its most creative and most gifted members.

Also, it was noticed that a large number of tasks which people perform at work depend upon their capability to call on an informal network of colleagues from work (Baker, 2003). In doing so, various tasks can mean calling on various members from the network. Exactly this, how successfully can people use this network, namely, how much from it they can practically create temporary "ad hoc" team - it a crucial factor of success at work in the organization (Goleman, 1997.a,b). Therefore, in order to achieve a successful group rationalization the key is the quality communication that create networking.

Achievement of harmony in working groups is most often connected to a term of organization climate so a good (productive) organizational climate is usually a synonym for good psychosocial rationalization of work where the working group unison is achieved and / or organizational harmony. Poor organizational climate indicates an inappropriate organization of work, inappropriate interpersonal human relations, inappropriate interpersonal relations between management and employees (inappropriate leading), inappropriate system of human resources management (hiring, workload, evaluation, system of remuneration, controlling and alike), but also psychological perception of resentment, unfairness, inequality, injustice, irresponsibility, envy, arrogance, non-solidarity, obscurity of roles, mistrust, suspiciousness (...), thus it is thought that within the organization there is an organizational discrepancy, disorder, dissatisfaction (...) or simply mismatch of human resources of the organization with all other organizational resources whose main causal factor is the human (managerial) factor. Solution of these problems usually results with rationality and productivity and it regularly needs to be solved with methods of human resources management when organizational problems are predominantly located at specific functions of the human resources management (cf. Bogdanović, 2009.) as well as with organizational consulting by application of behavioral methods when the problems are predominantly located in the area of people management (cf. Bogdanović, 2003.).

2.3. Cultural rationalization of work in organization

It is not ideal for an organization to have the processes of rationalization of work start exclusively from the management, if the management did not its employees in the process, who are directly responsible for the production of new products and services, because exactly they have the best insight in that which should be rationalized, improved. Each employee should adopt those values with which they can independently (without fear of punishment or bad consequences of their suggestions) seek, based on their logic, the types of work which are rational and that suboptimal methods and processes of work through their suggestions can be changed, made simpler and improved. This is only possible if something is systematically being changed, made simpler in accordance with the principle of the greatest benefits, namely, to create that kind of efficient organization culture.

Long-term organizational practice or organization culture should be constituted in such way to increase long-term productivity and fair relations. Productive organizational culture for which each organization should strive for can be described through the following characteristics:

- efficient, capable management; nonexistence of favoritism, corruption, bribe and stealing as "normal" organizational apparitions;
- stimulating employee initiatives; maximally avoid hypocrisy (deceit, lies, "spins") and introversion (management who becomes a purpose to itself);
- fight against irrationality; barren ideology which do not contribute to productivity; facts preference, reality and truth;
- decrease of dependency on political instructions and suggestions from above or from the side, certain employee autonomy is usually very important in order to achieve motivation and productivity;
- fight against the feeling of "blind" obedience, compliance with vanities and self-conceit; breaking of spiritual (inseparable) homogeneity (everyone needs to think like their boss thinks) and consequently caused passivity; fight against machinations; evilness, helplessness, desperation;
- focus on details, specific, clear, precise; clear (non-manipulative) communication;
- systematic support of innovation and innovative (creative) individuals;
- emphasis on production-oriented, creativity-oriented and strategic (long-term) business orientation;
- encouragement of conceptuality, imagination, flexibility, activity;
- rational use of all resources (human, financial, material), existing organizational resources should be maximally used, and it is especially necessary to employ unused resources (capacities, fixed assets) or have them reassigned as non-productive.

Although it is not possible to give definitive answer on the question of overall efficient culture, roughly talking organizational culture for 21. century should have the next attributes (cf. Bogdanović, 2010.):

- strategic directionality on human resources;
- easy and fast changes adopting;
- participative, democratic management;
- developed informal communication with minimum of hierarchy;
- team work and decision;
- strong and clear vision, enthusiasm and intrinsic motivation;
- high-quality achievement, permanent improvement, growth and development;
- trust, ethics, spontaneity even love toward co-worker/partners, company and stakeholders.

If organizational culture is directed according mentioned cultural principles it could reflect on improvement of efficacy and organizational business processes as a consequence of cultural human resource rationalization.

3. CONCLUSION

This work has explicated foundational forms of appearance of the soft human resources rationalization of work with an objective to improve organizational efficiency. Three basic areas of the "soft" psychosocial rationalization can be suggested to the management:

- a) Individual rationalization of work: work should be rationalized for each person through effective solutions and he/she should be taught how to behave efficiently at his/her workplace. Every employee has the right and duty to be efficient, and the duty of management is to have employees become efficient at their workplaces.
- b) Group rationalization of work should start from the creation of harmony (cohesion) in working teams and from the organization harmony (cohesion) which is an important task of management in the field of people management (leadership).
- c) Cultural rationalization acknowledges that desirable organizational behavior should become a long-term practice, because in this way a winning team is being created. Namely, one thing is to know, the other thing is to apply it, and the best thing is to apply efficient value-appropriate organizational practices over the long term, with which a cultural efficiency and quality is achieved.

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IMPACT OF SUSTAINABILITY ON BRAND POSITIONING AND VALUE

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ABSTRACT

The goal of this paper is to highlight a role the field of sustainability plays in the process of developing strong brands. In particular, the study shows that sustainability could have a positive impact on brand positioning and value. The analysis is conducted by looking at the sustainability and brand equity relationship from four different angles which nevertheless offer substantial view into the subject.

The first part explores role of the consumer-based brand equity concept and memory associations model in creating strong, favorable and unique brand associations. The second part examines elements of sustainability as a source of consumer-based brand equity. Part three explores impact that sustainability could have on brand knowledge and differential effect. In the fourth part the point-of-sustainability as a fifth dimension of the brand positioning model is introduced.

By investigating those different angles of the relationship between sustainability and consumer-based brand equity by exploratory study, literature reviews and discussions the paper draws the picture of sustainability in the brand equity development setting. The study reveals opportunities, trends and direction in the future development of the consumer-based brand equity. More than that it shows how sustainability creates and captures the value which in turn creates demand and reduces investors' risk.

The overall benefit of this paper is to provide marketers with an extra tool and power, to create and explore new ways for building strong brands. In doing so, marketers will need to dig deep into the growing set of the brand development concepts, models, theories, tools and frameworks to find sustainability related associations that will resonate with the consumers. As a result, markets will experience a proliferation of strong sustainable brands that satisfy needs of the customers under the umbrella of preserving natural resources.

Keywords: *Brand Positioning, Customer-Based Brand Equity, Point-of-Sustainability, Sustainability.*

1. INTRODUCTION

We all enjoy our wealth, but there is a storm looming on the horizon. Every day, we use brands, sometimes religiously sometimes pragmatically to accomplish and fulfill needs of our everyday existence. However, by doing so, we forgot to push the breaks and are about to go over the cliff. The report by WWF (Living Planet Report 2014) shows that 1.5 Earths would be needed to meet the demands the humanity makes on the nature each year. The Global Living Planet Index shows that we have wiped out a half of the animal population in the last forty years (Living Planet Report, 2014). If we add impact on climate change, water scarcity, pollution, fossil fuels, waste and overall decrease of the Earth's regenerative capacity it seems that we are approaching the point-of-no-return rather fast. This is a conceptual study on combining the concepts of sustainability and consumer-based brand equity in order to highlight the areas where those two concepts can maximize opportunities and benefits to the consumers by developing stronger and ecologically-friendly brands.

Today, sustainability as a source for building strong brands is more of a must rather than a choice. Idea of developing strong brands without considering how friendly they are to the environment and what impact they have on the society and the overall economy is a thing of the past. Obviously, more holistic marketing approach, one that rapidly includes sustainability as a direction for future brand development, research and strategic activity, is needed.

Sustainability, as a concept, first appeared in the final report “Our Common Future” issued by the The Brundtland Commission in 1987 (Al-Hallaj, S et al., 2012). It was defined as “development that meets the needs of the present without compromising the ability of the future generations to meet their own needs”. Other researchers (Huang and Rust, 2011; Thogersen and Crompton, 2009) suggest that resources are limited and that resources should be more evenly distributed among the global population.

The second chapter overviews the basic concepts behind the consumer-based brand equity and memory association model which describes how human memory stores brand knowledge. It forms the basis for further discussion and evaluation of the subject.

Third chapter highlights potential sustainability sources for consumer-based brand equity such as innovation, distribution channels, consumer focus, consumption, holistic approach, stakeholders, trend, prices, supply chain, product category, marketing communications, brand familiarity and bottom line.

Impact of sustainability on brand knowledge is analyzed in the forth chapter. The sustainability threshold concept is introduced for brand image and brand awareness elements. Differential effect and sustainability are discussed in the fifth chapter. The impact of the sustainability is analyzed using concepts of benchmarks, significance vs. relevance maps, incremental approach and footprints and indexes.

By merging concepts of consumer-based brand equity and sustainability a new model, sustainable-enhanced consumer-based brand equity, is proposed. In essence, it is a consumer-based brand equity model enhanced by sustainability elements.

Sustainable-Based Brand Equity = Consumer-Based Brand Equity + Sustainability

2. CONSUMER-BASED BRAND EQUITY AND MEMORY ASSOCIATION MODEL

The power of marketing lies in creating brands. The power of brands lies in their brand equity or, from the consumers’ point of view, in the consumer-based brand equity (CBBE). (Keller, 2013, pp. 68) describes the CBBE as a differential effect that brand knowledge has on the consumer response to the marketing programs and activities of that brand.

2.1. Consumer-based brand equity drivers

There are three major drivers behind the CBBE: the brand knowledge, differential effect and consumer response. However, the brand knowledge created by the past experience, marketing programs, word-of-mouth is responsible for customer perception about the brand. In other words, consumers’ perceptions about a product are highly dependent on the impressions of the brand associated with the product (Keller, 2013, p. 71).

(Keller, 2013, pp. 71-79) points that brand knowledge is manifested via recall, recognition, attributes and benefits. Recall and recognition represent brand awareness while attributes and benefits represent brand image. The recall and recognition are sometimes enough for making a low-involvement purchasing decisions.

On the other hand, brand attributes and benefits, also known as brand associations, represent brand image. Consumers react differently to attributes and benefits. Even though, attributes

initiates interest, benefits have the dominant impact on the consumers' response. Brand image is responsible for creating strong, favorable and unique associations (Keller, 2013, pp. 71-79).

For example, Tesla Motors Company is targeting market segments with strong rational and emotional ties to the sustainable technologies such as cars with high-tech, state-of-the-art and zero CO₂-emission electrical engines. The company creates strong, favorable and unique associations by targeting environmentally conscious segments of the population.

2.2. Memory association model

Marketers were always interested in how the brand knowledge exists in the consumers' memory. The memory association model (MAM), developed by cognitive psychologists, suggest that human memory works as a network of nodes and links. Nodes represent any stored information, concepts, associations, verbal, abstract, contextual, etc. while connecting links represent strengths of associations between the nodes. The hypothesis that more frequently visited nodes have greater activation capacity (familiarity) is consistent with finding of that subjects are better able to remember, recall and recognize the information about familiar people and things (Anderson, 1983, p187).

The model was introduced as the Adaptive Control of Thought (ACT), a theory of cognitive architecture, which explains basic principles of operation built into the cognitive system (Anderson, 1983). The theory is concerned about high-level cognition or thought. An ACT production system consists of three memories, working, declarative and production. The working memory contains information from the long term declarative memory. Cognitive elements pieced together can be represented as a network of nodes and links (Anderson, 1983, p25). The resulting network can be relatively complex because of many different ways the cognitive units can be combined.

For example, both recognition and recall paradigms are explained in the ACT model. The recognition paradigm is subject of presenting parts of the trace (information) and asking if they were studied. In the recall paradigm subjects are asked to retrieve other components of the information while in the recognition test, the subject simply announces that there is information. However, in the recall test, the subject must generate parts of the trace (information) (Anderson, 1983, p189).

Based on the ACT cognitive architecture and the CBBE concept, the sustainability as the source of brand knowledge can be entered and existed into the nodes in the consumer memory and interconnected with other aspects of the brand knowledge such as recall, recognition, attributes and benefits. The various elements of the sustainability can be linked with different levels of perceptions, believes, experiences, impressions forming strong, favorable and unique associations.

3. SUSTAINABILITY AS A SOURCE OF CONSUMER-BASED BRAND EQUITY

In its effort to implement sustainability into the CBBE marketers are facing numerous issues and obstacles. In this study, sustainability is viewed as the resource for marketers to create stronger brands. For consumers, the value comes not only from the products themselves but also from the fact that they can have an opportunity to participate in managing the Earth's resources.

This feeling of self-awareness regarding sustainable goodwill is deeply embedded into the people's minds and represents untapped source of strong positive associations towards living sustainably. Potential sources are innovation, distribution channels, consumer focus, consumption, holistic approach, stakeholders, future trend, prices, supply chain, product category, marketing communications, brand familiarity and bottom line.

There is a growing portion of the population that is shifting their buying habits towards environmentally friendly, green or sustainable products. Increasingly, consumers are factoring into their buying decisions attributes and benefits that are associated with environmentally friendly products. Companies are recognizing this trend by environmental, social responsibility and financial performance known as triple bottom line (TBL) (Johnson, 2009).

According to (Closs et al. 2011), from the marketing point of view, sustainability objectives, go side-by-side with developments of distribution channels, innovation, product design, communication channels, etc. However, if the bottom line doesn't deliver expected figures it would be very difficult to encourage firms to use sustainable marketing practices according to (Cronin et al. 2010).

In the next decade, according to (Ferrel et al. 2010; Raghurir et al. 2010), sustainability is going to play a major role in the success of any organization. Consumers, influenced by the increasing body of knowledge produced by various sources, such as governments, institutions, academia and individuals, will continue to drive this trend. In the process, consumers will demand products that satisfy their needs but without collateral damage to the environment.

However, according to (Jagdish et al. 2010), sustainable strategies revolving around TBL suffer three major shortcomings: no focus on consumers, do not recognize effects of excessive consumption and no holistic approach. According to (Jagdish et al. 2010), in many sustainability initiatives consumers are left behind the stakeholders in terms of the received value. Most of the companies put a lot of emphasis on their social responsibility (SR) programs, spending little or no time on modifying or developing consumer-demanded sustainable brands.

The study by (Scharf et al. 2011, p. 79) based on Mindful Consumption (Jagdish et al. 2010) shows that consumers do not have discipline and enough power to control what they buy resulting in overconsumption. According to the same study, most of the consumers feel that sustainable products would immediately benefit the planet for two reasons: high prices of the sustainable products would reduce overconsumption and the more efficient supply chain process associated with sustainable products will reduce degradation of the environment.

One important point of the study by (Scharf et al. 2011, p. 79) shows that majority consumers are familiar with the product category such as sustainable, organic, etc. but not with the brands. This indicates importance of incorporating sustainability elements into the brands and implementing marketing programs to properly position brands in the market.

However, in many efforts to promote sustainable products to consumers there is a missing link. As pointed in the (Scharf et al. 2011, p. 79), there is a lack of communication activity that will put a right associations, benefits and attributes, into the consumers' minds about the products. This can be only achieved at the brand equity level by embedding desirable levels of recall, recognition and favorable, strong and unique brand associations through marketing

programs. The consumer needs to know why certain price levels are associated to the product and what exactly that product does for him or her.

4. SUSTAINABILITY AND BRAND KNOWLEDGE

(Keller, 2013, pp. 73-74) points that the CBBE occurs when the customer has a high level of knowledge and familiarity with the brand and holds strong, favorable and unique brand associations in memory. The sustainability enhanced model is in fact the CBBE model wrapped into the layer of sustainability (Figure 1). In the proposed model the major brand knowledge elements such as recognition, recall, attributes and benefits are enhanced by environmental, social or economic features.

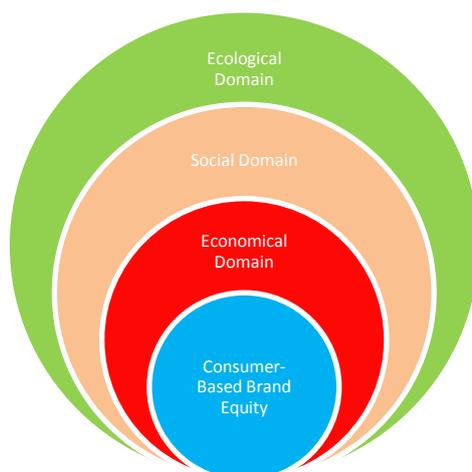


Figure 1: Sustainability enhanced CBBE model

4.1. Sustainability-driven recognition and recall

Recognition is important for making purchasing decision at the point-of-purchase or impulse buying situations. When a consumer sees the brand that she has already been exposed to, and are able to identify it, as environmentally friendly, we have a case of sustainability recognition. If the links between the brand name-node and sustainability association-nodes are strong and positive a person may get into the low-involvement purchasing behavior.

On the other hand, recall occurs when the consumer uses the product category information stored in the sustainability-nodes memory to link it to the brand. Traces in a memory such as footprint, organic, energy-saving and etc. motivate a consumer to engage in the sustainability-motivated low-involvement purchasing.

For example, if a consumer singles out Tesla Motors among Toyota Prius, Nissan Leafs and Renault Zoe it is sustainability-driven brand recognition. However, if a consumer is considering which electrical car has the best driving range and Tesla Motors comes to mind, then it is a case of sustainability-driven recall.

4.2. Sustainability attribute threshold

Sustainability enhanced brand attributes may elevate already existing interest in a brand to another level. Brands attribute associations enhanced by a package of sustainability features, such as footprints, ecological, organic, green, recycle, etc. can increase an overall positive brand judgment.

For example, consider two brands of bread A and B of the similar taste, ingredients, color, size and texture. Say that each wheat type used for brand A and B requires 900 and 450 liters of water to produce 500g of wheat respectfully (Leahy, 2014, p85). Without any doubt, sustainability conscious consumers will form positive associations towards bread B. However, to create strong, favorable and unique brand associations we need to raise the sustainability bar little more.

Modern science is predicting twenty time higher yield of wheat in the future. So, if only 50 liters of water is needed to produce the bread B, assuming that everything else stays the same, a consumer will notice a significant difference and will be even more motivated to create strong, favorable and unique associations towards brand B. This tells us that somewhere in the differential process there is a threshold for the significance, relevance, judgment and uniqueness of the sustainability driven attributes.

4.3. Sustainability benefit threshold

Sustainability-enhanced benefits can make the existing reason for buying a product even more appealing. For example, Tesla Motors claims the following benefits: zero-payment for gas, free recharging, re-charging time less than refueling time, network of recharging stations, sports-like acceleration, state-of-the-art luxury interior, contemporary-styled exterior and etc. If those benefits exceed customer expectations beyond certain levels or thresholds a customer will exhibit intensive associations towards the Tesla Motors cars.

5. SUSTAINABILITY AND DIFFERENTIAL EFFECT

Per (Keller, 2013, pp. 73-74) brand knowledge creates differential effect if only high-levels of strong, favorable and unique associations are created by the brand awareness and image. Consumers must have a right knowledge structure in order to act upon the difference. Sustainability-created differential effect follows the same pattern except that it can be further enhanced by benchmarks, significance-relevance maps, incremental approach and footprints and indexes.

5.1. Sustainability benchmarks

Benchmark can be a footprint, index, percentage, expression or statement, both quantitative and qualitative. For industries that periodically introduce new product versions, such as smart phones or automotive, consumers can compare the current model's sustainability footprint with the previous or historical ones. The bigger the difference of the footprint levels the stronger the differential effect. Both products and product categories are applicable for benchmarks.

5.2. Significance vs. relevance map

In general, the more significant the difference the more relevant it becomes to the consumers (Figure 2). The significance shows the size of the sustainability impact. Say, 2500 and 7600 liters of water are required to produce one cotton t-shirt and one pair of jeans respectively (Leahy, 2014, p59).

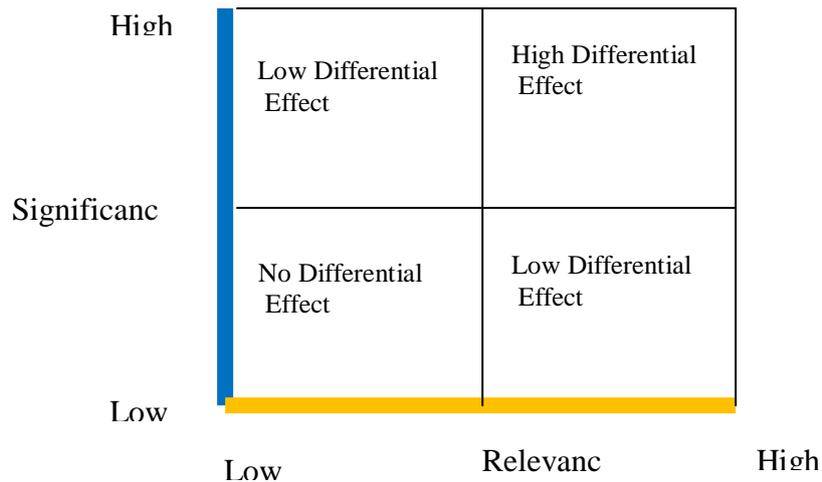


Figure 2: Significance vs. Relevance Map

On the other hand, the relevance shows how important is the size of the sustainability impact to a consumer. If 7600 liters of water, amount requires to produce a pair of jeans, is of little or no concern to a consumer then its relevance measure is low resulting in no or low differential effect.

5.3. Incremental approach

If, for example, a product of model year 2015 has 20% better footprint than the 2014 model, and 30% better than the 2013 one, consumers can form knowledge structure that the product is improving on year-by-year basis. Incremental approach is applicable for industries such as automotive, technology, communication, etc. and is suitable for almost any product category, food production and fast moving consumer goods.

On the other hand, if we say that oil and coal reserves will last next 50 and 100 years respectfully we are using absolute comparison approach. Because the final limit is given the positive approach comes from “what after” uncertainty. It is this uncertainty that raises general consumer awareness towards energy-saving products which, in turn, can cause consumer to have more positive impact on the incremental comparison.

5.4. Footprints or indexes

Water, carbon, ecological, global footprints are most popular, however, footprint can be created from anything that can be branded for example, the city of Cardiff’s (Wales) ecological footprint (*Cardiff’s Ecological Footprint*, 2005). On the other hand, indexes such as The Global Living Planet Index (WWF, 2014, p9) and various sustainability indexes can point to the state-of-the-planet from different angles. Footprints or indexes are used to conveniently and accurately express the sustainability of the product.

6. POINT-OF-SUSTAINABILITY AS A POSITIONING ELEMENT

(Keller, 2013, p. 79) defines brand positioning as a “location” in minds of target consumers, so they can think of a product or service in a “right” or preferred way so it can maximize the potential benefit to the company. Also, (Kotler, 2012, p. 277) identifies four pillars of the brand positioning model such as frame-of-reference, point-of-difference, point-of-parity and brand mantra. In this study, we expand this model by another element: point-of-sustainability

(POS) brand association. The rationale behind incorporating the POS into the brand positioning strategy, as a separate element, is to maximize the benefit of the significance of the environmental, social and economic issues, also known as sustainability or triple-bottom-line concept. In many ways, the POS steals the ownership of the brand from the firm and spreads it to the other domains of the society by bringing the holistic flavor to the brand strategy.

The POS creates a ground for positioning a product based on its significance and relevance associations to the sustainability elements of choice. The more the brand is perceived strong, favorable and unique in terms of its positive impact on environment, society and economy the more value it carries. Consumers' preferences and perceptions about brands vary because of the different brand knowledge structures (Keller, 2013, pp. 83).

The POS is the consumer benefit or reasons-to-believe (Keller, 2013, p. 84) which can take many forms such as footprint, index, global hectare, etc. Having the compelling point or reason-to-believe is critical for successful implementation of POS.

Point-of-sustainability (POS) can formally be defined as a set of attributes and benefits that consumers strongly associate with the favorable effect on the environment, society and economy, positively evaluate and believe that similar want be found in the competitors' brands. Consequently, there are three different types of POS classified as environmental, social and economic.

6.1. Environmental point-of-sustainability

The environmental point-of-sustainability are associations that exist both at the product and category level and are influencing consumers' perception on a brand's impact on the nature. It represents an environmental footprint tag attached to the brand. A cotton t-shirt has water footprint tag of 2500 liters versus polyester's t-shirt tag of only 350 liters (Leahy, 2014, p59).

6.2. Social point-of-sustainability

The social point-of-sustainability represents necessary, but required condition, that brand needs to meet in order to satisfy the long-term wealth programs of the society such as employment, education, healthcare, etc. and the overall quality of life. Good example is Aral Sea, in today's Uzbekistan. In just 30 years, the lake of the size of the half of England has disappeared as its waters have been channeled to the cotton fields. Today, all what is left from ones thriving fishing industry are the shipwrecks in the salty desert. Shattered communities, that used to live off the lake, are forced to move and look for existence somewhere else.

6.3. Economic point-of-sustainability

The economic point-of-sustainability associations are related to the brands growth and profitability that serves as a wind-in-the-back for the brand's long term existence and the interest of the firm to invest further in its development. According to (Cronin et al. 2010) if the bottom line doesn't deliver expected figures it would be very difficult to encourage firms to use sustainable marketing practices.

7. CONSLUSION

Sustainability can play a vital role in developing, managing and measuring CBBE. Besides being part of the CBBE model and an element for brand knowledge or an amplifying factor of the differential effect, sustainability is an opportunity vehicle for marketers to create, build and launch future brands that should even more resonate with consumers than the current once.

Marketers are encouraged to use sustainability elements as sources for enhancing CBBE and making brands more attractive to the hearts and minds of the consumers. Tools such as benchmarks, significance-relevance maps, incremental approach, footprints and indexes should be used to convince prospective customers to buy sustainable brands and to create positive strong, favorable and unique associations towards brands that are factoring in the sustainable consumption of the Earth's resources.

Sustainability thresholds are important milestone points for marketing programs and activities for pulling-in consumers to perceive and consider sustainable brands as the purchasing-choice for satisfying their needs.

Finally, by incorporating sustainability elements into the CBBE marketers are striking the vital cord with consumers, stakeholders, companies and markets. By doing so, marketers are taking the ownership of the brands further away from those who create them bringing them closer to those who use them.

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THE ROLE OF INTERNATIONAL FREIGHT FORWARDERS IN THE REPORTING OF SHIPMENT AND DELIVERY OF GOODS IN THE EUROPEAN UNION OVER THE INTRASTAT

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ABSTRACT

By entering the European Union, the Republic of Croatia has undergone many changes regarding international forwarding agents. The obligation for application of customs regulations in line with the EU Legal Acquest has arisen. Bearing in mind that the trade of local goods between the EU member countries is exempt from customs formalities and control, forwarding companies lose a large portion of their business. Most of international forwarding companies had to commit themselves to carrying out other general and specific lines of work instead of import duties, in order to compensate for the loss of the market space. The EU membership has brought the duty of Intrastat reporting, i. e. statistical research of trade in goods between the EU members. In this way, there arises the opportunity for authorized customs representatives to perform a new type of business, if the business entities delegate their duty of Intrastat reporting to the customs broker. In this way the international forwarding companies can compensate for the market space they lost when Croatia entered the EU. The goal of this paper is to give basic insights into the international forwarding companies' features, specificities of their business activities and their emergence as authorized representatives in Intrastat reporting on dispatches and arrivals of goods for the EU customers. This paper will serve as a guide to better understanding the role of international forwarders in reporting on dispatches and arrivals of goods in the European Union through Intrastat, as well as give a clearer picture of the future international forwarders are facing.

Keywords: *international freight forwarding, Intrastat Form, Intrastat system*

1. INTRODUCTION

International forwarding refers to a set of specific functions, operations and rules which ensure dispatches of goods from the home country to foreign countries, arrival of goods from foreign countries to the home country and transit of goods between foreign countries across the home country.

With the accession to the European Union (EU), the Republic of Croatia has become a part of a single customs territory of the Union, and therefore has the duty of applying customs supervision in line with the EU Legal Acquest.

Many changes have occurred concerning international forwarders' business activities. As the borders concerning customs duties between the member states are disappearing, the aspect of customs procedures with the business entities from other EU member countries, as well as with non-member countries, is changing significantly.

As we have entered the EU, all local goods trade within the EU is no longer subject to customs formalities duties, nor to customs control of those goods. For this reason, most of forwarders had to choose other general and specific lines of work instead of import duties. Data about the flow of goods within the EU are gathered by means of Intrastat System, and therefore, international forwarders are focusing on providing Intrastat reporting services as well.

International forwarding includes economic services of foreign trade, i. e. dispatches of goods from the home country to foreign countries (export forwarding), arrivals of goods from foreign countries to the home country (import forwarding), and transit of goods between foreign countries across the home country (transit forwarding). These services are provided by international forwarders, which also undertake other specific activities regarding dispatches, arrivals or transit of goods (Zelenika, 1996, p. 52).

2. INTERNATIONAL FREIGHT BUSINESS ACTIVITIES AFTER THE ACCESSION OF CROATIA TO THE EUROPEAN UNION AND THE GLOBALIZATION OF THE MARKET

Today, when big globalization changes take place, there is a need for transformation of classical forwarders into logistic forwarders, ready to perform numerous, more complex activities and functions in order to survive in the competitive market (Bendekovic, Vuletic, Gotovac, 2013, p. 1).

Namely, as Croatia has become a full member of the European Union, most of international forwarders have lost their businesses. By entering of Croatia into a new territorial zone and customs regime, borders are being erased, and consequently, there is no more need for most services provided by forwarders. Nevertheless, this does not suggest that this type of activities will stop, because they are being and will be performed in other places, connected with the goods which are exported into, or imported from the EU countries (Basic, 2011).

From the day Croatia joined the European Union, there have occurred many changes concerning international forwarders' activities, relating to four areas (Bendekovic, 2014):

- ***new information system***. Today, flows of information precede flows of goods, which considerably decreases time losses in the transport process, increases delivery speed and punctuality, enables reduction of necessary stock of goods in production and trade, production is conducted according to orders, i. e. according to market demand, and the finalization of the product is relocated from factories into logistics centres.
- ***structural changes of international forwarders***. Structure of a company, concerning ownership and size, is under constant influence of competition and market efficiency. Large companies require advanced organization and management, where management is separated from the ownership structure.
- ***adjustment to the European Union Customs System***. After the borders between the members of the EU have been erased and quantity of products limitations removed, a single customs EU territory has been established. Customs control and other limitations between the member states have been abolished, and each member state

generally applies the same customs rules to the EU non-members. Since the abolishment of the customs control between the Members of the European Union, many international forwarders have been facing decrease in the business volume because there is no more need for import duties, except with the countries which are not members of the EU. International forwarders have to channel their activities to providing other general and specific services. One of those services is to keep records of the flow of goods - INTRASTAT.

- *creating strategic alliances between international forwarders and suppliers, as well as between international forwarders and internal and foreign partners.* Today, when there is strong competition present in the trade in goods, low financial solvency (low capital) and conditions of complementarity in the markets, one of the most favourable models for development of Croatian companies is creating strategic alliances. Strategic alliances are seen as means of providing opportunities for survival in the international markets. Some of those opportunities are ownership integration or strategic alliances. Strategic alliance represents an ideal solution in high-risk situations of independent development. They are crucial for more rapid expansion, in situations where there is relatively low availability of equity shares and where there are complementarities between companies and great and rapid changes in the environment. Croatian companies are still revealing the world of strategic alliances, which will help in conquering markets and technologies.

3. INTRASTAT: THE SYSTEM FOR COLLECTING DATA ON THE TRADE IN GOODS BETWEEN COUNTRIES OF THE EUROPEAN UNION

On 1 July 2013, all customs formalities and controls on the flows of goods between the Republic of Croatia and other Member States of the EU were abolished. As a result, Single Administrative Document is no longer the source of information for producing statistics on the trade in goods with the EU members. A new kind of research - Intrastat is introduced, which is a system for a direct data collection from business entities that trade with the EU member states (DbSchenker, 2013).

Intrastat is the system for the collection of statistical information on the flow of goods between the EU members (Durdek, Ozimec, 2009, p. 24). Intrastat was introduced on 1 January 1993, thereby establishing a unique internal EU market and enabling free movement of goods (Polancec, 2013). Until then, data was received by means of Single Administrative Document (SAD), but since it was cancelled, there arose the need for yet another form of statistical data collection (http://www.carina.hr/e_carina/Intrastat.aspx).

The importance of statistical data on the trade in goods with foreign countries lies in the fact that this data is an important source for compiling the balance of payments and gross domestic product (GDP). It is also used when deciding on national or European monetary and economic policy, as well as for conducting macroeconomic analyses (The Republic of Croatia Government, Croatian National Bank - CNB, EU, UN, International Monetary Fund - IMF, The Organization for Economic Co-operation and Development - OECD, WTO); this data is also an indicator of a country's economic success and development (Polancec, 2013). The statistics on the trade in goods with the countries that are not EU members is still collected by means of SAD. This portion of statistical data is called Extrastat, which, together with Intrastat, represents the overall statistics on the trade of goods with foreign countries (Nova ICT, 2013, p. 6).

Regarding the non-member states, customs procedures are in line with the European customs regulations, and the point of customs clearance can be located in any of the EU member state. Business entities from Croatia can go through import or export customs clearance in any of the member states, but business entities from other member states can do the same in Croatia. It is commonly understood that Croatian business entities go through customs clearance in Croatia, as, in that way, a share of customs revenues collected stays in the country. The Republic of Croatia Customs Office can do customs clearance for the recipients from other member states as well. In this way, more customs clearances would be carried out, and therefore, more revenues collected for the national budget of Croatia (Buljan, 2013, p. 51).

By carrying out customs clearance of goods for the business entities from other member states, an opportunity opens up for customs brokers, which have actually lost the possibility of representation in the customs procedures in the trade between the EU member states, except for the submission of the Intrastat Form for business entities in Croatia. Thus, international forwarding agents have the opportunity to compensate for a portion of market lost due to the accession of Croatia to the EU (Buljan, 2013, p. 51).

3.1. Difference between the Single Administrative Document and the Intrastat Form

Single Administrative Document (SAD) is a customs document used for carrying out customs formalities regarding the exchange of goods with other, non-member countries, while the Intrastat Form is a statistical report by which the exchange of goods between the EU member states is monitored (DbSchneker, 2013).

Until the Republic of Croatia's accession to the European Union (EU), concepts used in foreign trade dealings were known to all of us as import and export, but, since 1 July 2013, two groups of concepts have been used. The first group concerns trading with the EU members, with the concepts of arrivals i.e. buying of goods from suppliers from the EU, and dispatches i.e. selling of goods to the buyer from the EU. The other group refers to the trade with non-member countries, where concepts of import and export are used (Buljan, 2013, p. 1-2).

Table 1: Comparison and differences between the SAD and the Intrastat Form (Polancec, 2013)

Single Administrative Document	INTRASTAT FORM
IMPORT/EXPORT	ARRIVALS/DISPATCHES
All dispatches/transactions records + submitting of customs declarations for each	All dispatches/transactions records + submitting monthly, cumulatively
All entities trading with foreign countries	Only those entities which exceed the exemption threshold value
Greater amount of data, greater accuracy and control	Reduction of workload placed on the reporting units
Filing of a paper document can be done electronically	Submitting only electronically to The Customs Administration G2B Service
Every export/import	Obligatory, even when no trade
Carrying out customs clearance	Statistical report

The major differences between the SAD and the Intrastat Form are as follows (Croatian Bureau of Statistics, 2013):

- The SAD is filled out and submitted for every transaction, while the Intrastat Form is submitted monthly;
- The SAD is filled out by every business entity that exchanges goods with foreign countries, while the Intrastat Form only by those which exceed the exemption threshold value;
- The SAD contains greater amount of data required in relation to the Intrastat Form, which means reduction of load for the data providers (DbSchenker, 2013).

In Table 1, the SAD and the Intrastat Forms have been contrasted and the differences have been listed. Besides the major differences already mentioned, they differ in the way of submitting as well. Regarding the SAD, it is done in paper and electronically for carrying out customs formalities, while the Intrastat Form is submitted only electronically, and is obligatory, even when no trade is done, with the purpose of statistical reporting.

3.2. Institutional responsibility for Intrastat in the Republic of Croatia

In line with The Agreement of International Cooperation, Croatian Bureau of Statistics is the holder i.e. the institution responsible for the Intrastat research, methodology, statistical processing and dissemination of data, while the Customs Administration collects and controls data for the research (Polancec, 2013).

Croatian Bureau of Statistics is in charge with the preparation and execution of statistical activities, fulfilment of international obligations regarding official statistics from the work scope set in The Statistical Activities Programme of the Republic of Croatia, and for the Intrastat research.

In 2008, the Customs Administration and Croatian Bureau of Statistics signed The Agreement of International Cooperation on the introduction of the Intrastat research into Croatian statistical system (Croatian Bureau of Statistics, 2014, p. 11). Both institutions have developed a long standing cooperation in carrying out the existent statistical research Extrastat, which represents a solid basis for a successful introduction of new research (DbSchenker, 2013, p. 1)

3.2.1. Intrastat reporting obligation

Reporting units have the obligation to report data. Those are companies which pay VAT, exchange goods with other EU member states, and those which have exceeded the exemption threshold value set for the current business year (Bozina, 2013, p. 155). The obligation of Intrastat reporting is established yearly, based on the information on the arrivals from other EU members and dispatches of goods into other member states, on which a business entity was reporting through the Intrastat forms, as well as on the deliveries and revenues declared on the VAT forms for the prior fiscal period (twelve months). Croatian Bureau of Statistics and the Customs Administration inform a business entity if the obligation started or ended, and the reporting unit is then obligated to submit the Application Form for Intrastat within ten days since the receipt of the information. If a reporting unit does not have any transactions in a given month, it is still obligated to send an empty Intrastat Form (Croatian Bureau of Statistics, 2014, p- 10).

A reporting unit is obligated to report data if its value of trade in goods in the prior fiscal period exceeds the exemption threshold for dispatches or arrivals, or for the both trade flows. It also has the same obligation if the cumulative value of the trade in goods from the VAT.

Form exceeds threshold value for either of the flows. A business entity is then obligated to report data to Intrastat since the month in which the value of the trade in goods exceeds the threshold value (Croatian Bureau of Statistics, 2015, p. 8). The provider can provide the data on its own, or it can transfer this obligation onto another party i.e. customs agent (Croatian Bureau of Statistics, 2014, p. 10).

3.2.2. The exemption threshold

The exemption threshold is the value set for every statistical year, for arrivals and dispatches separately. It is the basis for defining business entities with the obligation of reporting data to Intrastat. The providers of statistical information are those business entities whose value of trade in goods exceeds the exemption threshold (Nova ICT, 2013, p. 6). The data on arrivals from other EU members and dispatches to other EU members, on which the provider reported on the Intrastat forms, as well as the deliveries and revenues reported in the VAT forms for the prior fiscal period, is the basis for setting the exemption threshold (DbSchenker, 2013, p. 3).

The provider of information is obligated to report statistics to Intrastat for the flow of trade in goods whose value of the annual trade in goods with the EU members in the prior fiscal period exceeds the set exemption threshold value for that specific flow, or for both trade flows, arrivals and dispatches. The obligation can also arise during the year, when the cumulative value of the trade in goods of a business entity obtained from the VAT Form exceeds the exemption threshold value. For arrivals, the exemption threshold value for the year 2015 is 1.800 000 Croatian kuna, for dispatches 1.000 000 Croatian kuna (Croatian Bureau of Statistics, 2014, p. 5).

3.2.3. Reporting periods and deadlines for submitting the Intrastat forms

Reports to Intrastat are submitted on a monthly basis. The reporting period is a calendar month in which arrivals and dispatches take place i. e. it is a month in which goods physically enter or leave statistical territory of a member state which reports to Intrastat. The Intrastat report for the month in which arrivals or dispatches took place must be submitted in the next month at the latest. It is submitted, regardless as to whether or not the payment has been made. The submission deadline is on the 15th of the month for the last month, and if the 15th is a non-business day, the deadline becomes the next business day (Croatian Bureau of Statistics, 2015, pp. 5-8).

The scope and responsibility of Intrastat reporting

Intrastat reporting encompasses all data on dispatches of goods from Croatia to other EU members, as well as data on the arrivals from other EU member states. This includes supply, sale, or return of goods i.e. goods sent to be improved or the return of goods that was being improved, except in the case of repair or maintenance of goods. Intrastat report is not submitted for the trade in services, as it is not the object of statistical exchange of goods with foreign countries. The relevance of the Intrastat research is in monitoring of physical movement of goods, not in monitoring the course of payment. If the payment is made before the goods are physically delivered, the data on that goods will be submitted for the Intrastat research in the month of the actual dispatch or arrival of the goods, not in the month the payment is made (Croatian Bureau of Statistics, 2015, p. 2).

For the Intrastat System, the data is filed on the following:

- commercial transactions of goods, which include the transfer of property designated for use, expenditure, investments or resale;
- transactions which include the transfer of property with no financial compensation, nor payment in kind;
- the flow of goods from one member state to another with no transfer of property, like, for example, storage, flow of goods before and after the improvement, and
- the return and replacement of goods (DbSchenker, 2013, p.2).

4. THE ROLE OF TAX DATA IN THE INTRASTAT SYSTEM

One of the key characteristics of the Intrastat system is the connection to the tax data. This data represents an important part of the Intrastat system. Along with the new VAT Form, two more forms, in which transactions with entrepreneurs from other members of the European Union are filled, have been introduced. It is the ZP-VAT Form for the deliveries of goods and services and the VAT-S Form for the acquisition of goods and the received services (Mijoc, 2013, p. 42). From the VAT Form, the VAT-S Form and the ZP Form, tax administration uses data from companies on the movement of goods with the EU members, and these tax data are submitted on a monthly basis to Croatian Bureau of Statistics, using OIB (Personal Identification Number) of the companies (DbShenker, 2013, p. 1). Tax administrations of the EU members are obligated to exchange data on the VAT by means of V.I.E.S (VAT Information Exchange System). The data from the V.I.E.S. System are compared to the data from the Intrastat System. The Intrastat data and the data on the VAT compared in the same time period have approximately the same value (Nova ICT, 2013, p. 7).

Tax data is used for determining the exemption threshold values in the Intrastat System, for defining new reporting units, for the assessment of irresponsibility and the value of trade below the exemption threshold, for the updating of the Intrastat Register, and for the control of the validity of the Intrastat information. This control is assumed by summarizing and comparing the Intrastat and tax data, using OIB, as well as the flow and the period, and if there is significant difference between the data, the company is contacted in order to determine data accuracy and the source of discrepancy (Croatian Bureau of Statistics, 2014, p. 31).

The differences that occur between the tax information on the acquisition of goods from the EU, the delivery of goods into the EU and the Intrastat data can arise for different reasons, and those are:

- **flow of transaction.** It is understood that Intrastat follows the flow of goods, while tax data follows the financial course of transaction.
- **the VAT number.** For example, if goods are imported from the non-member states, but the invoice is issued with the VAT number of a member state. In that case, the necessary information for the statistics is found in The Single Administrative Document and distributed to Extrastat. The acquisition of goods from the EU member which authorized the VAT number of the company which issues the invoice is filed on the VAT Form for the Tax Administration. The differences may occur if the goods are received from one member state, and the invoice issued with the VAT number of another member state. These differences can be visible in the VAT forms.
- **reporting period.** It is understood that the dispatches of goods and the issuing of invoices do not have to occur in the same month. If, for example, the goods are physically dispatched in a certain month and the invoice issued subsequently, in the next month, the reporting unit will file the report to Intrastat in the month of the arrival

or dispatch, and the report on acquisition or delivery of the same transaction on the VAT Form in the next month.

- ***the scope***. The statistics on the trade in goods with the foreign countries encompasses only the flows related to the movement of goods. The services, like repairs, sale of goods over the internet, temporary flow of goods for the period of up to two years, advertising materials and commercial sample are not included. When goods arrive for improvement, their value is indicated in the Intrastat Form. After the improvement, the value of goods on the Intrastat Form is the total value which comprises the value of the received goods, the improvement costs and the material used in the process of improvement. Contrary to the data submitted in the Intrastat Form, only the value of the improvement costs, not the receipt of goods for improvement, is submitted to the tax administration.
- ***the calculation of value for Intrastat and the basis of tax assessment***. In the Intrastat reporting, the value of goods comprises only the costs of insurance and transport to the Croatian border, while in the case of the basis of tax assessment, the excise duties are included into the value of the received goods. The acquirer of goods for which excise duties have to be paid in the EU is obliged to pay them.
- ***the currency rate***. In the Intrastat reporting, the values in the foreign currencies are converted to kuna based on the mean currency rate listed in the foreign exchange list of the CNB for the specific month i. e. for the month for which the report is filed. In the VAT forms for tax data reporting, the values in the foreign currencies are converted to kuna based on the mean currency rate of the CNB for the day when the obligation for filing the VAT is imposed (Croatian Bureau of Statistics, 2014, p. 32).

5. CONCLUSION

It is difficult to choose from many definitions of international forwarding. They all have in common the fact that they define forwarding as a company which organises the dispatches, arrivals or transit of goods in the international trade for its client, and it also performs other general or specific activities connected with the dispatches, arrivals or transit of goods. From the day of the accession to the European Union, Croatia has become a part of a single customs area of the EU; it has entered a new territorial entity and a customs regime, where all borders are abolished and customs formalities between the EU member states cancelled. The domestic goods trade in the EU does not undergo the obligation of customs formalities, nor customs control over that goods; therefore, there is no more need for most services international forwarders provide. However, this situation does not mean these services are no longer active, for they are still being performed. International forwarders which have lost all, or a part of their business they have been conducting, most of all services related to customs representation, have been advised to transform into logistics operators and provide other general and specific services. The EU Membership has also brought the obligation of introduction of the Intrastat System i. e. statistical research on the trade in goods between the EU members, which replaced the customs declarations. The collection of statistical information in Intrastat is the main source for macro and micro economic analysis (balance of payments, national invoices), as well as an indicator of economic performance and support in carrying out trade, economic and monetary policy. Every business entity in the Republic of Croatia, if a VAT-rate payer, and whose value of trade in goods with the EU members exceeds the exemption threshold (for arrivals or dispatches, or both flows of goods), is obliged to report for Intrastat. Business entities are obligated to file the Form on a monthly basis. However, there is a possibility that a business entity transfers its obligation onto an authorized customs agent. Thereby, an opportunity opens up for the authorized customs

forwarders to provide another kind of services and, in that way, compensate for a portion of the market space they have lost due to Croatian accession to the EU.

Besides the participation in the Intrastat reporting, the European Union offers to international forwarders the possibility of clearance of goods for the recipients i. e. business entities from other EU members, which opens up a possibility to collect customs duties, a portion of which stays in Croatia. An opportunity surely opens up for authorized customs agents, which, for the most part, are concerned about their position after the accession to the EU. The very position of Croatia i.e. the fact that we are the external border of the EU raises those opportunities.

In the end, it can be concluded, although the accession to the European Union has brought many changes in the international forwarders' businesses, which have mostly downsized their activities, this does not mean that this type of business has come to an end. In the present conditions of fierce competition, only those who are flexible and quick to adapt to the market changes survive. Specifically, this means that international forwarders refocus and start providing other general and specific activities, to seize the opportunity given by the EU membership in order to compensate for a portion of the lost market. So, it is we who determine to which extent we are able to seize the opportunities the European Union membership gives us.

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GLOBAL MEDIA INDUSTRY IN POSTMODERNISM: DOMINATION OF BROADCASTING AND THE TRADITION OF PUBLISHING

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ABSTRACT

The aim of this paper is to point out the changes brought by the postmodernism in the global media industry. Modernism was created simultaneously with the development of the publishing and it lasted several hundred years. Postmodernism was formed in the womb of broadcasting and in just a few years it took over the global market which has been under the control of the publishing houses for several hundred years. The two economic crises at the beginning of the 21st century marked the entry of the global media industry into the mature phase. By entering the mature phase, the media markets of the most economically developed countries had stabilized. Revenues were no longer recording high growth rates and some countries have started to record a negative growth rates in the past five years. In the global market, several global vertically integrated corporations positioned themselves by employing the takeover strategies, which pushed out the smaller competitors from the market.

The period of maturity had revealed the specifics of the media industry and the need for interdisciplinary scientific approach. Analyzing the development of certain categories of the media industry in different geographic areas it is clear that there are significant differences in the degree of their development. This was influenced by various factors of which the most important ones are recognized in the historical development and the cultural diversities of the certain geographical areas. Economics, as a scientific discipline, gave its significant contribution to the study of the media industry relatively late, at the end of the twentieth century and become an equal partner to other sciences that were already represented in the analyses. The media industry, as a typical representative of postmodernism, requires a holistic approach in order to find answers to the asked questions.

Keywords: *broadcasting, management, media industry, postmodernism, publishing,*

1. INTRODUCTION

In 1450, when Gutenberg printed the first book on the table with movable type, the publishing history had begun. The printing press was born, and the social processes were set out in a new direction. Later on the scholars of different disciplines would deal with this event and among them would be those who marked the middle of the fifteenth century as the beginning of modernism. The possibility of printing books and dissemination of knowledge marked the beginning of the end for scholasticism. As the aphorist Georg Friedrich Hegel later wrote: More than gold, lead has changed the world. And more than lead in

musket, the lead in the printer's type case (Kunczik, 2014; p. 20.) The development path for the Enlightenment had been opened and the knowledge and insights on reason and experience would take primacy to this day.

The journey from the invention of the printing press until the development of the media was not strewn with roses. It took more than 250 years until the first newspaper were printed the ones that we could identify with contemporary understanding of the newspaper as a medium. The development was slow due to various factors and apart from the factors related to the development of the printing technology, the environmental factors also had a large impact. The printing of books was limited because of underdevelopment education structure and insufficient number of literate people who would become the consumers of the publishing product. In 1947, Theodor Adorno and Max Horkheimer published the *Dialectic of Enlightenment*, where they had provides an overview of the development of the capitalist society from the Enlightenment to the modern capitalism. In the second sentence of the book, they had already referred to the Enlightenment: The fully Enlightenment earth radiates disaster triumphant (Kunzmann; Burkard; Wiedmann; 2001; p. 231.).

Between 1775 and 1848 a new technical, economic, social and political system was established the first liberal and industrial capitalism. The *system factory production* was developed early in the Manchester dominated England, especially in the textile industry. In the 1850, *the factory system model*, although it had not become ubiquitous in West Europe, still became the "production paradigm": In that way, primarily industrialist and then a much wider social circles considered normal or modern production, i.e. social organization (Vercellone, 2007; p. 102.) Modernism made its way into everyday life through the dissemination of contemporary art, the products of the consumer society, new technologies and new forms of transport and communications. The rate at which the modernism crated new and colonized world can be subsumed under the concept of modernization – a term denoting processes of individualization, secularization, industrialization, bureaucratization and rationalization, which have constituted the modern world (Best; Kellner; 1991; p. 3.).

The beginning of the twentieth century would be marked by structural theories, migration of the capital to the new world and previously unheard of development of the capitalist mode of production. All that would result in urbanization and migration of the free labor force to the cities. A critical mass was created which would give a new wing in the sails of journalism and publishing. Already in the first quarter of the twentieth century, technological advances were going to lead to the invention of radio and soon after that to the first forms of television. The contours of contemporary media industry would be created even before the mid-twentieth century.

2. DIVERGENCE AND THE DEVELOPMENT OF THE MEDIA INDUSTRY

The media industry was built on the foundations of publishing as a representative example of an industry which characterized the modernism. The twentieth century, the spread of capitalism, the development of innovations and the growth of productivity created conditions for the divergence of different forms of the organized production. The divergence within the media industry was reflected in the form of differences in the development of journalism as the old sector of the industry, and electronic media, radio and television as the new sectors of the industry. Divergence had existed for a long time even between radio and television, because it took time for the television to accomplish sufficient revenues, which allowed an independent development. Separation of television from the radio, based on sufficient income,

could be identified as the beginning of the end of the publishing reign. Broadcasting had unstoppably moved toward taking over the domination of the media industry.

Two fundamental factors were favorable for the development of broadcasting. First, the twentieth century, especially the period after the World War II brought, by then, an unprecedented development of science as well as the related discoveries. The growth of economy, based on the investments in the development and improvements, enabled the technological development that marked the twentieth century. The television and the media industry as a whole developed on this track. And second, the period after the World War II is known as the age of Keynesianism and the welfare state. The accomplishments of the welfare state use broadcasting for their development.

Table 1. The growth of production per capita since the industrial revolution

The average annual growth	World production per capita	Europe (%)	America (%)	Africa (%)	Asia (%)
1700. – 2012.	0,8	1,0	1,1	0,5	0,7
Od toga:	0,1	0,1	0,4	0,0	0,0
1700. – 1820.	0,9	1,0	1,5	0,4	0,2
1820. – 1913.	1,6	1,9	1,5	1,1	2,0
1913. – 1950.	0,9	0,9	1,4	0,9	0,2
1950. – 1970.	2,8	3,8	1,9	2,1	3,5
1970. – 1990.	1,3	1,9	1,6	0,3	2,1
1990. – 2012.	2,1	1,9	1,5	1,4	3,8
1950. – 1980.	2,5	3,4	2,0	1,8	3,2
1980. – 2012.	1,7	1,8	1,3	0,8	3,1

Source: Piketty, 2014., p. 111

Average growth of production, in the period after the World War II until the beginning of the seventies and the oil crisis, were high and stabile. In Europe, the average was 3,8 % and in America 1,9%. After the increase in oil prices, but also the slowdown of the accelerated reconstruction of war-torn Europe, the growth rates slowed to an average of 1,9 % in Europe and 1,6 % in America. Such log and steady growth enabled the development of the infrastructure of broadcasting.

3. CONVERGENCE AND THE DEVELOPMENT OF MULTIMEDIA CORPORATIONS

The period of the eighties of the twentieth century was marked by a sudden fall in the average production per capita, but that primary related to Europe and Asia, where they had exhausted the excising growth models. In the United States, that trend was not felt because the growth rates were relatively uniform and stable. The period from the Word War II until the mid-seventies in Europe was often called glorious thirty, and in some countries, especially in France, they are looked upon with nostalgia even today. Upon completion of the cycle of renewal and development of the industry in Europe, the production growth rates had equalized with rates in the USA, and in technological development, Europe was at the top of the world along the USA.

The growth rates of countries that had lost World War II, primarily Germany and Japan, reached the growth rates of the Anglo-Saxon countries, the United States and Great Britain. Such development of the situation led to a review of the policy of the welfare state. National markets of the United States and Great Britain were flooded with domestic products and conservative political movements which came into power in the Anglo-Saxon countries, reversed the achievements of Keynesianism and opened the way for new liberalism. State interventionism had pulled back again, under the surge of original capitalism with its roots in the 19th century.

The liberalization movement, that began around 1980, or indeed nationalization, which had started in 1945, do not deserve such excessive celebration nor excessive attacks. France, Germany and Japan would have probably made up for the delay of growth after the collapse in 1914 – 1945, no matter what policy they were following. In can only be said that the state intervention was not harmful for them (Piketty, 2014; p. 115.). Liberalism is based on the principle of individual freedom and democracy, which results in decentralization and the turning of the levers of authority towards individuals. In modernism, the strengthening of individualism causes the disappearance of feudalism (Hicks, 2004; p. 10.). The political foundations of liberalism are being expressed in the fundamental concepts of modern democracy, such as the theory of contract and popular sovereignty, power-sharing, system of rights and freedoms of man and citizen, the rule of law, parliamentary democracy, equality, justice, legality and legitimacy. The economic fundamentals of liberalism are private property, free competition, market economy, the principle of laissez-faire, or the spontaneity of the market (Milardovic, 1996; p. 55.).

With the abolition of state intervention and the introduction of liberal social and economic doctrines the foundations of development of global corporations were being created. The development stage had started, which was described by Mary as imperialist capitalism and which is based on the foundations of the rule of capitalist corporations. According to Marx's understanding of the historical development of the capitalism, we could draw conclusion that the period after the eighties had followed third phase of Marx's teaching. After the concentration and accumulation, comes the pauperization. The fourth and last stage is the crisis, which we would experience in the 21st century after the deflation of the financial bubbles. Marx was the original Hegelian, and Hegel himself was a supporter of the strong state and thought that the state should limit individualistic and egoistic aspirations of individuals everywhere where it comes to ethical ideal. However, later on even Hegel had softened that attitude and according to Lunacek (Lunacek, 2004; p. 258.) Hegel softened the thesis on the superiority of the state against individuals, with a famous saying that the world history is nothing other than the progress of the consciousness of freedom.

Abandonment of the state interventionism and liberalization of the market in the early eighties would ring the death bells for modernism. Globalization appeared like the tide. Corporations were merging together and were spreading on regional and then to the global market. In developed countries the age had come which would be later recognized as a post-industrial society, with all the features that it brings. Conditions had been created for the development of multimedia corporations. In only about the years, the American multimedia corporations were going to control the global media market. Digitalization would enable the final seal for the domination of multi media corporation. Media content was going to be distributed via different platforms and the ease of its distribution and use would be the leverage for the economies of scales of global cross media corporations.

4. POSTMODERNISM AND THE SOCIETY OF THE SPECTACLE

Postmodernism brought the total predominance of broadcasting over publishing. Or at least in those market segments which would grow along with the broadcasting or in those parts of the world which would accept broadcasting and the media spectacle as part of the social processes that became part of the cultural identity. Post-industrial society, which was developing on the basis of the development of postmodernism, was going to be marked by two factors. The first is reflected through the blurring of borders between the environment of the organizations and the organizations themselves, that some authors called the blurred boundaries, and the second one, post-industrial society would bring the supremacy to the economy of knowledge, which was based on human resources and mobility of human resources without a solid domicile residence.

In a very short period of time, we had become witnesses to the growth and consolidation of the large transnational conglomerates and media infrastructures, in almost every corner of the world. With the persistent pressure from media organizations and financial markets, the waves of innovations were caused, which radically changed the manufacture, distribution, consumption and use of the media products (Editorial Collective, 2014; p. 1-4). The generations born after the eighties grew up with global multimedia organizations. Publishing had marked the modernism. Broadcasting, digitalization, Internet and vertically integrated cross media corporations would mark the postmodernism.

Modernism built capitalism of solid boundaries of organizations. The publishing and newspaper industry were created and with the development of modern methods of production, solid foundations for the development of science and innovation were set. Science and innovation would be the ones that led to the complete change of direction in the media industry, thought what Schumpeter had called *creative destruction*. Electronic market would prevail over other types of market. Postmodernism was going to blur the boundaries of organization of the modern corporations, including the multimedia. As Grant called it (Grant, 2010; p. 472.) breaking down corporate boundaries. The dominant media products of modernism were in the physical form and were intended for the distribution via the classic distribution channels.

The adoption of digital technology enabled content to be shared among many different platforms. Media companies now distribute content to multiple platforms and devices (Albarran, 2010; 69.). Across the media, many firms have responded to digital convergence by adopting a multi-platform strategy in relation both to production and to exploitation of their content assets (Doyle, 2013; p. 29.). The convergence was taking place in three main areas: content (media) computer platforms (information technology) and communications (telecom and broadband operators). A subset of industry - level convergence is corporate convergence – whereby companies from one sector acquire or ally with other firms, or start new ones, in another of the converging industries (Kung, 2008; p. 93.).

Media products of postmodernism are the combination of physical products and services. They are intended for use on a variety of platforms. The value of the products is not reduced regardless of the number of consumers that use the product and the time of consumption usually does not depend upon the environmental factors. They are available almost everywhere and at any time. Products of the media industry are also the products of the culture, but at the same time they are the merchandise which is being exchanged on the market.

However, this kind of development had also its negative consequences. Discussion were led at various levels about the question of endangering the culture of origin of certain parts of the world, as well as about the subject of how globalization and media industry were affecting the products of culture and everything related to culture identity. Marx, who was quoted by the postmodernist, represented the position that the value of a commodity is determined by how useful a thing is. In *Capital*, Marx said that (Marx, 1973; p. 44.) the utility of a thing makes it a use-value. The media industry would turn the contents that it manufactures and distributes, into the commodity which they were selling in the market. Economic of production and the distribution of content were going to move the basic orientation to the exchange value of commodity. Exchange value of commodity, at first sight, presents itself as a quantitative relation, as the proportion in which values in use of one sort are exchanged for those of another sort, a relation constantly changing with time and place (Marx, 1973; p. 44.).

Upon his return from America, Baudrillard warned about the cultural products which were being assessed as a part of the exchange value. Referring to Adorn and Horkheimer (Peovic Vukovic, 2014; p. 177 – 189), he said that the classical Marxist critique of cultural industries (such as the one from Adorno and Horkheimer's *Dialectic of Enlightenment*) insist on exposing the deception for which the cultural industries that caused standardization of the products of culture were responsible (Peovic Vukovic, 2014; p. 177 – 189). Kunczik emphasized that the American theory and modernization policy believed in the convergence, according to which the development always ultimately leads to the American capitalism. And he mentioned that even Karl Marx, in the *Capital*, wrote that the capitalist production would impose itself worldwide: The country that is more developed industrially only shows, to the less developed the image of its own future (Kunczik, 2014; p. 23.).

The history of the development of the different geographical areas and cultural pattern associated with social values, had a major impact on the dynamics and direction of development of the media industry. How much these factors are done to be important in the future would depend on a number of other factors, from the inside, as well as from the environment of the observed geographic area, remains for some other future studies. This paper focuses on the difference between the domination of broadcasting and publishing in certain geographical areas.

5. HYPOTHESES:

1. Within the national media industry, broadcasting is the dominant category in the American continent and in the counties of Eastern Europe.
2. Broadcasting is the main driver of the media industry today.

According to the data collected from the scientific database EBSCO – Business Source Complete, and by using other professional literature from the area of the media industry, as well as everything that refers to that, it is obvious that the broadcasting, according to the income it generates is a dominant category within the media industry, in most of the countries that were included in the analysis. In our research, we are going to try and prove this claim by referring to the second hypothesis, which connects the growth of the media industry directly with the growth of broadcasting.

6. PUBLISHING IN THE GLOBAL MARKET

According to the share of publishing in the national media industry, in the global market the leading country is Sweden with 48.5 %. It is followed by China, Germany, Japan, Italy, South Korea and Denmark with more than 40 % in total share. At the last place on the list is the USA, with only 17.9 %. Alongside the USA are connected by underdeveloped media industry, due to a number of factors associated with historical, cultural, political and other reason.

The USA is a country with the largest generated incomes in the media industry in the world. In 2012, 255.1 billion dollars of turnover was generated in the media industry. Out of that, 45.6 billion dollars was in publishing and 146.6 billion dollars in broadcasting.

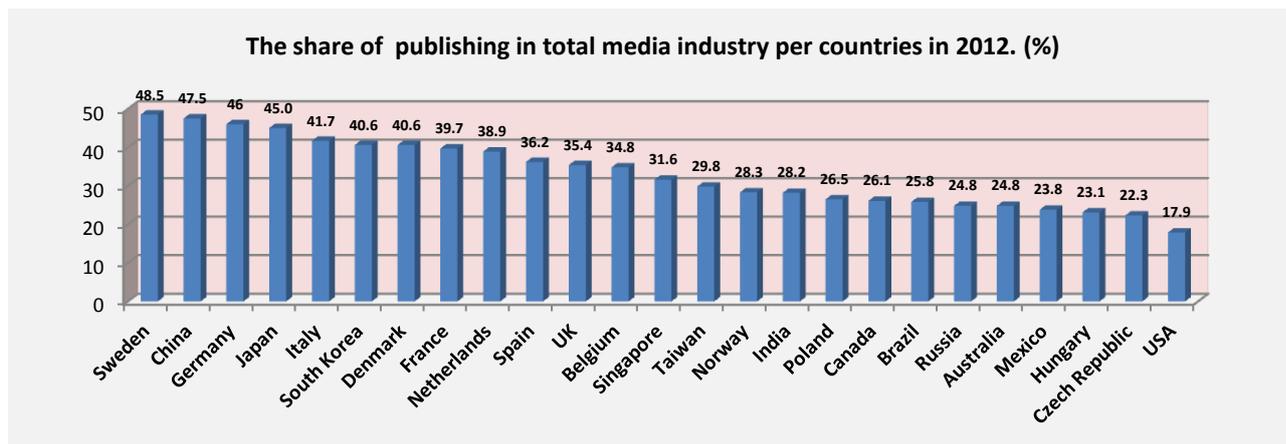


Figure 1. The share of publishing in total media industry per countries in 2012 (%)
 Source: EBSCO - own illustration

USA is also the leading country in dictating trends in the media industry, therefore, an open question remains for further scientific studies, about the fate of the publishing in the global market.

7. BROADCASTING IN THE GLOBAL MARKET

In terms of share of broadcasting in the total media industry, Brazil is in the first place with almost 70 % of broadcasting share in the total media industry. It is followed by Hungary, Mexico, USA, Taiwan, Czech Republic and Poland which have more than 50 % of the share in the national media industry. Germany, Australia, Denmark, China, Norway and Sweden are at the bottom of the list. When compared with publishing we can notice Sweden as the country with the largest share of publishing and lowest share of broadcasting. The situation is similar with China, Germany and Denmark.

In contrast, Brazil, Hungary, Mexico and USA are the countries at the bottom of the publishing share, in the total media industry. The Czech Republic is at a high sixth place of the broadcasting share in the national media industry and at nest to last place in share in publishing one place ahead of the USA. The difference between the share of broadcasting and publishing is shown in Figure 3.

Brazil has the biggest difference between the share of broadcasting and publishing. The share of broadcasting is higher by 42.1 percentage points then the share of publishing. Hungary, USA, Mexico, Czech Republic, Taiwan and Poland are next, where the share of broadcasting is already higher by a quarter than the share of publishing. Canada, India, Russia and Spain have more than ten percentage pints of supremacy. These are all counties of the American

continent and the Eastern Europe, except for Spain and Asia. Spain is a country that geographically belong to the Western Europe, but along with Portugal, it is the poorest country in West Europe, and the roots for that can be traced back to the Middle Ages and the end of the mercantilism.

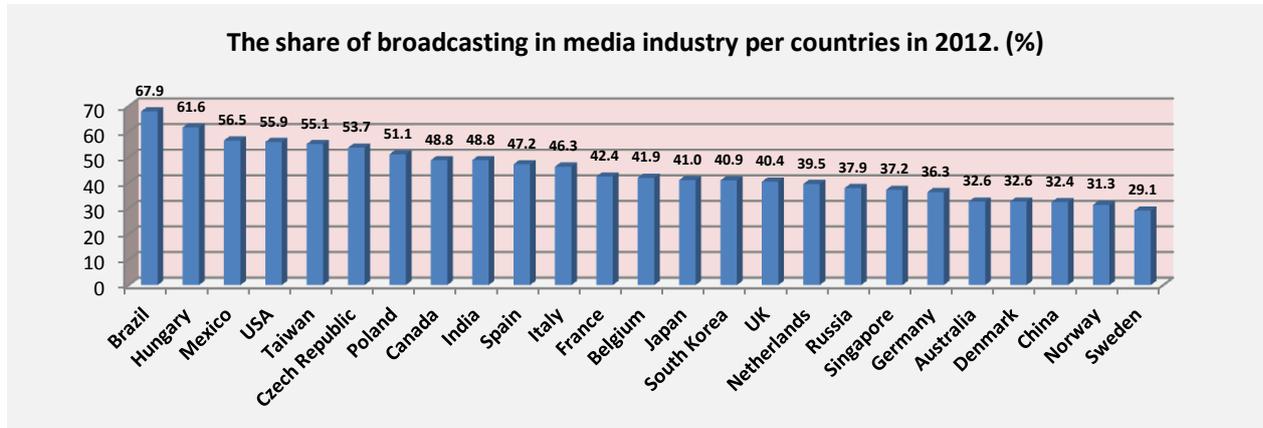


Figure 2. The share of broadcasting in total media industry per countries in 2012. (%)
 Source: EBSCO - own illustration

At the bottom of the list, with a negative margin of 19.4 % of share is Sweden. A long tradition of publishing and education has remained until today. China, Germany, Denmark and Japan are also the ones that have negative differences. In this group of countries the Netherlands and South Korea are included with nearly identical relation between broadcasting and publishing. United Kingdom, Italy, Norway and France have positive differences which is less than 5 percentage points and which is within the borders on the global media industry level. Figure 3.

8. GROWTH RATE

According to the growth rates of the media industry, India with 12.3 % and China with 11.8 % are firmly in the lead. These are also the two countries with highest population number and that are rapidly developing some form of capitalism and with it their own media industry. They are followed by Brazil, Russia, Hungary, Poland, Singapore, Taiwan, South Korea and Mexico. There is no doubt that the growth rates are highest in the countries that had not developed any form of media industry and which are now rapidly making up for it. At the bottom of the list with negative growth rates are the countries of Western Europe, Japan and USA, where the media industry has already entered its mature phase and which are no longer achieving high growth rates. Figure 4.

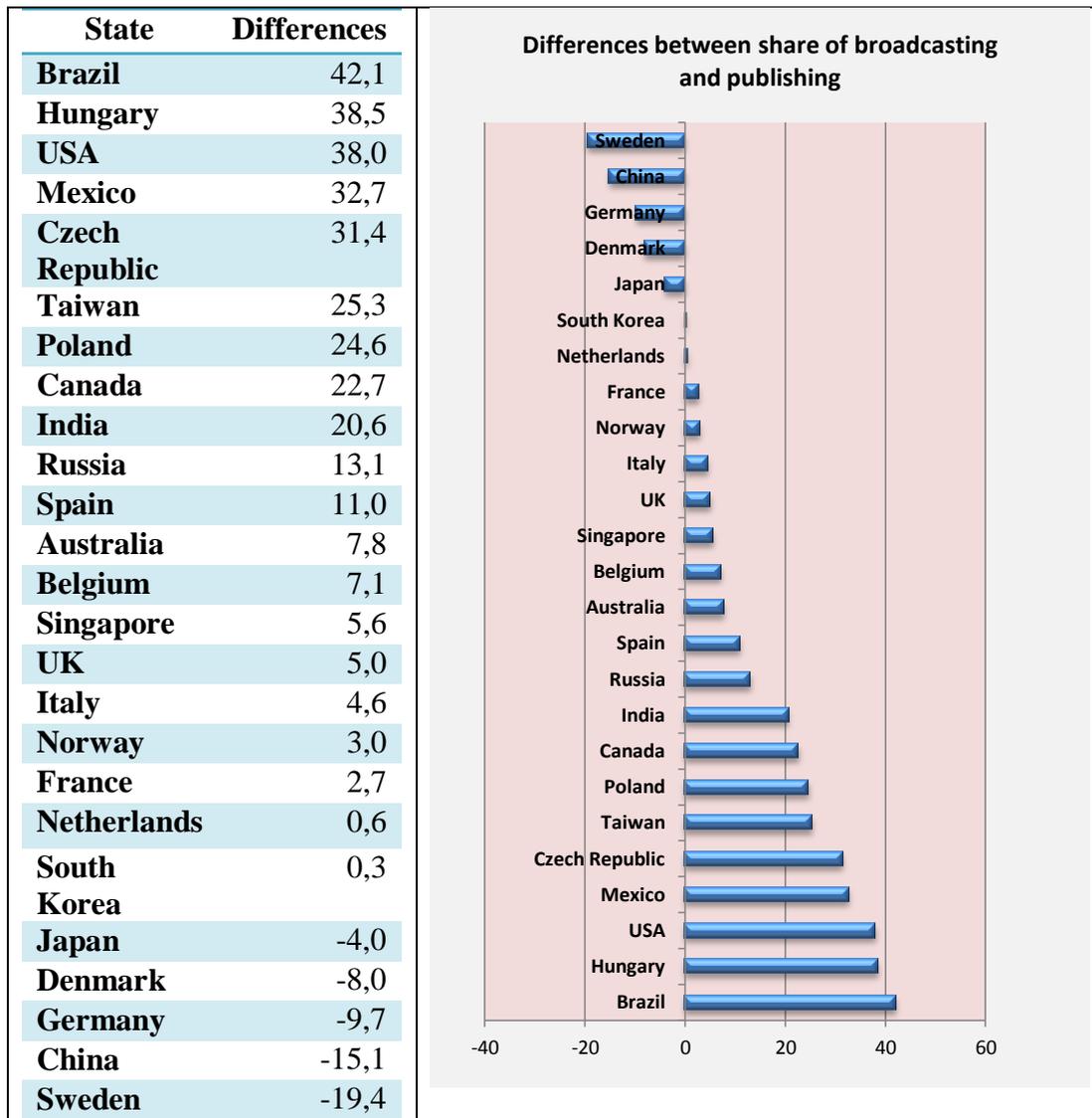


Figure 3. Differences between share of broadcasting and publishing
 Source: EBSCO - own illustration

9. QUESTIONS FOR THE DISCUSSION

By analyzing and comparing the distribution of publishing and broadcasting within the national media industries, we can without any doubt claim that there are differences which depended on the factors that are not directly related to the media industry. In Figure 5, an overall presentation is made of the above demonstrated calculations and presentations of states of media industry according to various parameters of sorting.

The share of broadcasting is the larger in the countries of the American continent, Eastern Europe and Asia. This confirms our first hypothesis about the geographical distribution of the dominance of broadcasting (Figure 6). USA is homeland of broadcasting and most modern media corporation. At the end of modernism, it had begun to globalize its business and expand to other geographic areas. The domination of broadcasting is already considerable in Brazil, Mexico and Canada. Vertically integrated media corporations have delegated their models of development to neighboring countries by taking over local media organizations.

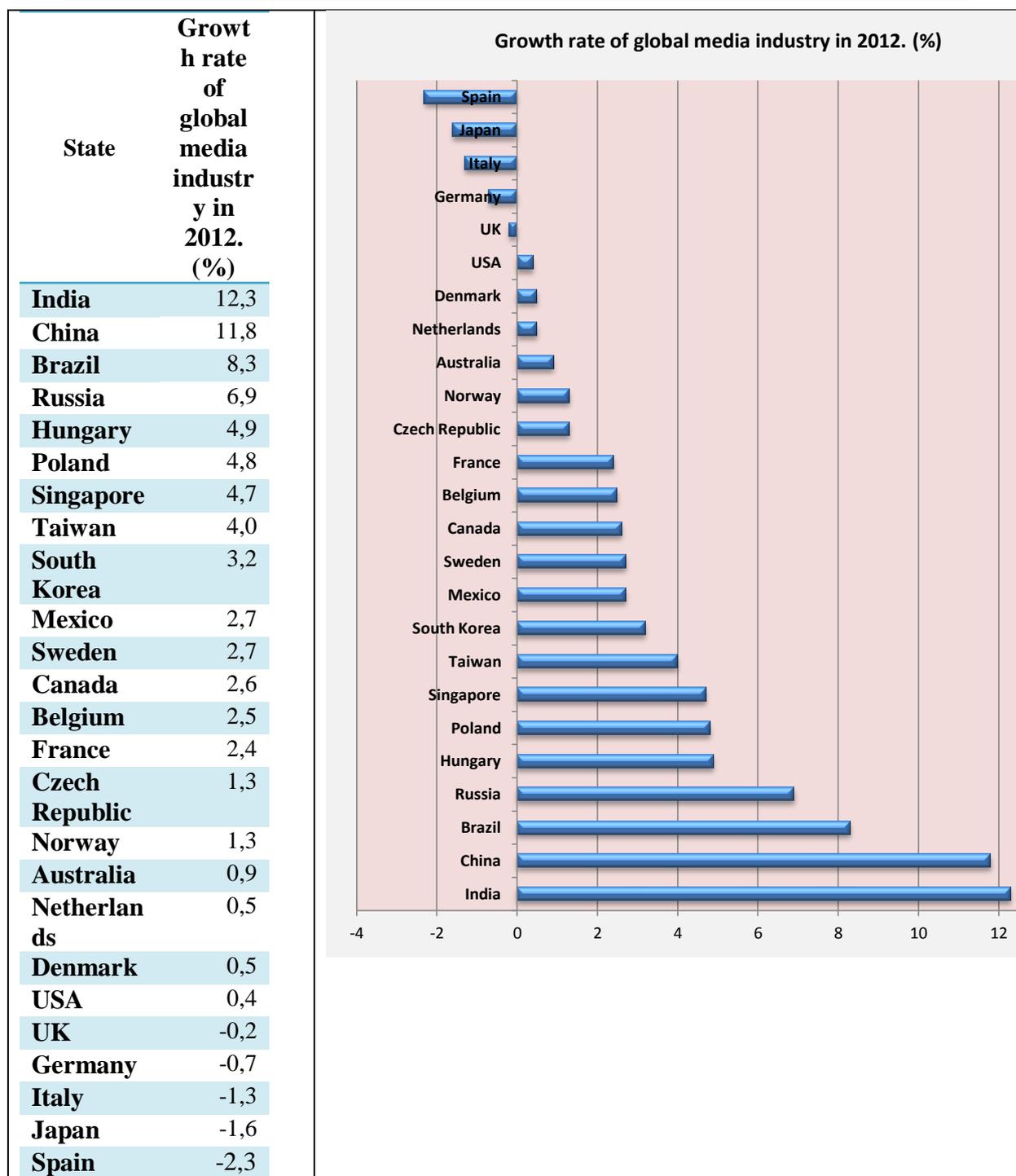


Figure 4. Growth rate of global media industry in 2012. (%)

Source: EBSCO - own illustration

A similar model of development was repeated in Eastern Europe. Hungary, Czech Republic, Poland and partly Russia took over the similar patterns of development of the media industry. The expansion of the American media corporations is already getting its outlines on the Asian continent. Taiwan, India, Singapore and Australia already have a distinct dominance of broadcasting within the media industry. Japan and China still have a bigger dominance of publishing with the notion that China has joined the construction of the modern media industry and it takes time for the infrastructure to be built.

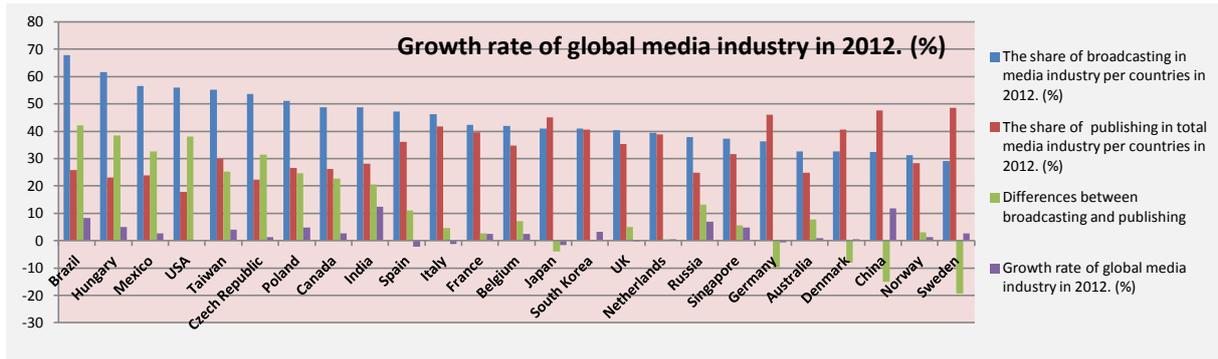


Figure 5. Growth rate of global media industry in 2012.

Source: EBSCO - Own Illustration

The second hypothesis cannot be fully accepted. India and China are realizing the largest growth of the media industry. In India, broadcasting is the dominant category and along with China, it is a country with the largest population number. However, in China, publishing still has a dominant position and that does not confirm the hypothesis that the growth of the media industry is directly connected to the growth of broadcasting. States that follow on the list, according to the rates of growth of the media industry, Brazil, Russia, Hungary, Poland, Singapore and Taiwan, directly confirm the second hypothesis about the connection between broadcasting and growth of the media industry.

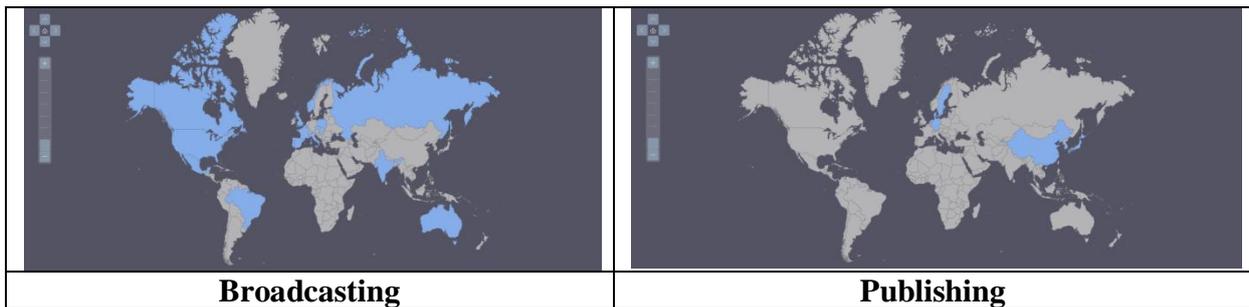


Figure 6. The map of global media industry in 2012.

Source: Own Illustration

At the bottom of the list are the countries which have already developed the media industry and it has already reached a mature stage. Countries with rates of growth of the media industry less than one percent, Australia, the Netherlands, Denmark and USA have already developed the media industry, so it is difficult to expect higher growth rates. Along with them are Great Britain, Germany, Italy, Japan and Spain, with negative growth rates in the media industry. Distribution of countries from the bottom of the list confirms that the rate of growth of the media industry can not be gradually associated with growth and the incomes from broadcasting. In the same group are countries which have the dominance of broadcasting, such as USA and Great Britain, but also countries which have the dominance of publishing, like Japan and Germany.

Issues that arise after these data for some other studies refer to the determination of factors that affect the character of the development of certain categories of media industry. By analyzing the map of the world the dominance of broadcasting and the American way of expansion of media corporations can be noted in the entire American continent, in parts of

Asia and Eastern Europe. The dominance of publishing can be found in Western Europe as well as in Japan and China. In South Korea, as one of the country with the oldest tradition of publishing, broadcasting slowly takes over the leading position.

Publishing in Europe remained a dominant category in the countries which have a strong tradition of education and which have evolved from a strong influence of the Enlightenment. Along with that, the publishing industry has developed in the countries of the north, with Protestant tradition, more than in the countries of South Europe. In the countries of Eastern Europe which had a weak connection to Protestantism, it had been easier to develop broadcasting as a model for the development of the media industry.

Broadcasting is a child of American media corporations, under domination of *marshallian* economic of production. Products and activities of media corporations enter into the exchange processes as the merchandise which has its exchange value. Kunczik referred to the commercial production of the content of the media industry from the position of communication sciences. Commercial production is usually thought to be, on one hand, culturally inferior and manipulated, or that it has manipulative contents and on the other hand, it claims that the features are selected in accordance with the wallet content and according to the wishes of the audience which would make them essentially democratic (Kunczik, 2014; p. 28.). As Peovic Vukovic emphasized, the deception is in the fact that the industrial production of culture, which is in no way different from the industrial production of consumer goods, gives the impression of freedom of choice, while the truth is that is that all of these choices are reduced to the same selection (Peovic Vukovic, 2014; p. 177 – 189). How are the counties of north-western Europe going to develop the media industry will remain for some further research. Are they going to keep the tradition and historical legacies or will they support the development of broadcasting depends on a number of factors.

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THE POSSIBILITY OF REACHING THE FULFILLMENT OF MAASTRICHT CONVERGENCE CRITERIA IN SERBIA

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ABSTRACT

This paper analyzes the fiscal position of the Republic of Serbia as well as the ratio between its indicators and reference values anticipated by the Maastricht convergence criteria. According to the mentioned criteria, the public debt must not exceed 60% of the GDP, whereas the budgetary deficit must not exceed 3% of the GDP, even though the majority of countries have set up stricter criteria in order to provide greater economic stability. The Republic of Serbia strives not to only fulfill the criteria set for the public debt be kept under 60% of GDP, but to decrease it to 45% of GDP. Taking into consideration the fiscal aggregates before and after the application of the fiscal measures in the following three year period it is shown that the measures should be applied further than this timeframe in order to fulfill the criteria needed to join the European Union. Based on the predictions shown in this paper it is clear that the Republic of Serbia will not be able to fulfill these criteria if it does not conduct a restrictive fiscal policy, which is inclusive in responding to the question of a structural deficit, a tax reform and an overall reform of the public sector, which is a good way to achieve the results predicted by the Maastricht convergence criteria, although not in the timeframe set by the Government of the Republic of Serbia.

Key words: *budgetary deficit, fiscal strategy, Maastricht fiscal criteria, public debt;*

1. INTRODUCTION

The crisis of the public debt, as a typical manifest of the current global financial crisis, has struck numerous countries of the European Union which macroeconomic indicators are far above the prescribed borders of the Maastricht criteria. With an aim to control fiscal movements and overcome the recession period, numerous countries have introduced additional, even stricter rules. Extraordinary savings measures are in force and they should ensure sustainability in the management of the European economies. The level of the public debt prescribed by the Maastricht convergence criteria is 60% of the GDP; once the debt has exceeded the limit, legally binding rules for the reduction of the public debt come in effect, and there are sanctions for those countries that do not obey them. Certain countries have even determined the successive borders for their respective public debts, at a level lower than the Maastricht one is, due to the expected growth of the public debt in the time of the economic crisis.

As a state in which economy depends on the economic flows in the European Union to a great extent, Serbia is undergoing the identical pattern of the deterioration of the fiscal parameters. In times when the European Union is recording the further downfall of GDP and in comparison to other leading markets flows deeper into recession, the Republic of Serbia still has the aim to join the European Union and fulfill its economic requirements in order to obtain its membership. Even though the European economy remains in the unfavorable economic state, and its economic indicators have never been poorer, the Republic of Serbia

still has a hard time reaching the economic standards proposed by the EU. In addition, if the Republic of Serbia manages to obtain the membership, there is a high possibility that since it is not economically ready for such a step, the further crises could occur, which was the case with the neighboring country, the Republic of Croatia.

2. MAASTRICHT CONVERGENCE CRITERIA

The establishment and functioning of the European Monetary Union has been one of the most complicated segments in the process of the deepening of European integrations. What has made this process so much a complex one has been the readiness on the part of the European Union's countries to establish an economic and monetary union as well as a big difference in the then economic and social development of the member-countries. At that moment, after the successful forming of the internal market, the next step – in the form of the establishment of the European Monetary Union – was expected. In order to conduct a successful monetary integration, it was necessary to reduce the differences into tolerable frameworks through the measures of the economic policy, and, at the same time, to ensure approximately the same starting position towards a higher phase of integration. According to the Maastricht agreement, the European economic and monetary union member countries were supposed to satisfy the following criteria according to the monetary and fiscal policies until the year 1997 or 1998:

1. Price stability, i.e. a sustainably low growth of prices and an average inflation rate not exceeding 1.5 percentage points above the average inflation of the three most successful member countries. Actually, inflation is measured on the basis of the comparative consumer price index – CPI.
2. Long-term interest rate – the average nominal long-term interest rate must not exceed 2% above the average of the three most successful member countries. The guideline for the determination of the interest rate is interest rates on long-term government bonds or comparative securities;
3. The amount of the budgetary deficit is determined in such a manner that the rate of the planned or achieved budgetary deficit does not exceed 3% of the gross social product;
4. The public debt criterion anticipates that the amount of the public debt does not exceed an amount of 60% of the gross social product;
5. The stability of the foreign-exchange rate and the participation in the Exchange Rate Mechanisms II (ERM II). This criterion relates to respecting the stipulated margins of the foreign-exchange rate fluctuation, which were $\pm 2.25\%$, without any more significant deviations in the time period of at least two years prior to the introduction of the common European currency. It is important that we point out at this point that – in the stated time period, when its currency is included in the Exchange Rate Mechanism – a potential member country has no possibility of self-initiatively devaluating its own currency against a currency of another EU member country with an aim of improving the competitiveness of its economy. The obligation of fulfilling the convergence criteria related to all the potential member countries of the Euro zone. These countries were expected to comply with the standards of budget-conscious living so as to create stable economic conditions for the introduction of the European currency. Amongst these conditions, the budgetary deficit was determined to have a share in the Gross Domestic Product not exceeding 3%. If we take into consideration the fact that not one country fulfilled this concrete criterion in the year 1993, and that some countries had a deficit three and even four times as high (Greece, 15.4%; Sweden, 14.5%; Italy, 10.1%), as well as the fact that each of these countries successfully satisfied the criterion until the year 1997, then a big success of the restrictive budgetary policy and the maintenance of budgetary discipline is evident (Jovanović, Gavrilović, 2001). After “soft budgeting” which lasted for a

number of years, it was necessary that modifications in the manner of conducting the fiscal and budgetary policy should be made if we wanted to create conditions for the introduction of a uniform currency. This is what the member countries noticed, too, and the Maastricht agreement established the fiscal convergence criteria with a clear goal to, inter alia, use tight budgetary discipline to enable the original introduction and, after that, keeping the common Euro currency stable, too.

The European Union decided to opt for the application of a stabilization budget which was greeted with approval after the many years of the deficient financing of the budget within the European Union. Although, according to the opinions expressed by many people, the fiscal convergence criteria were set at a demanding level, they did represent a strong foundation of a uniform restrictive budgetary policy. The European Union understood that it was necessary that the budgetary consumption should be reduced to reasonable frameworks if they wanted price stability and the national currency stability, and they adapted their macroeconomic policy to achieving the goal. Although the fulfillment of the Maastricht criteria does not represent a condition for full membership in the European Union, for many new member countries, it represents the next strategic goal.

3. FISCAL MOVEMENTS IN SERBIA IN THE PERIOD BETWEEN 2000 AND 2014

After the political changes in Serbia in late 2000, there was an increase in the GDP which lasted until the second half of the year 2008, when, due to the financial and economic crisis, it recorded a fall. The current financial and economic crisis will undoubtedly change the manner of economic behavior at the both, micro- and macro levels. The up to date effects of the crisis and the forthcoming long-term challenges on the global level confirm the fact that it is not just an ephemeral phenomenon (Stakić, 2010). Due to the degradation of the situation on the world financial markets, there has been a significant decrease in the flow of foreign capital, the domestic currency has depreciated and there have been inflationary blows, only to have been followed by a decline in aggregate demand, and, simultaneously, consumption as well, which has first led to slowing down, then to a fall in economic activities.

At the end of 2000 total public debt of the Republic of Serbia was 201.2% of its GDP. In the period from 2000 to 2008, there was a significant fall in the absolute level of the public debt as well as its share in the budgetary deficit. Thanks to the writing-off of a portion of the debt to the Paris and London Creditors Clubs, the external debt of the public sector of Serbia was reduced to the level of 28.3% in 2008. However, starting in 2008, the Republic of Serbia began to intensively increase its debt abroad, primarily to finance its state budget's growing deficit, which no longer could have been financed by the privatization-generated incomes.

In the period between 2008 and 2011, the state became indebted by 6 billion Euros in total. At the end of the year 2011, the public debt was 12.3 billion Euros, in which amount – due to the different methodology between the Ministry of Finance and the IMF – only direct liabilities of the state at the central level of authorities were included (Table 1). Taking into consideration the indirect liabilities as well, both those related to the internal and the external debts, the total amount of the public debt was 14.46 billion Euros. Only in the year 2011 did the public debt increase by almost 2.5 billion Euros. The last indebtedness in the year of 2011 was in the month of September, when the state sold bonds worth one billion dollars on the international market. The very dynamics of the increased indebtedness has been increasingly more alarming as the fact came out that the larger portion of the amount has not been directed towards investments, capital projects and new employments, but rather primarily towards consumption and for covering the budgetary deficit.

Table 1: Public debt (in million Euros) (Ministry of Finance of the Republic of Serbia, *Public Finance Bulletin*, Belgrade, 2015)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Public debt - total	4,255.5	3,837.0	3,413.3	3,161.6	4,050.2	4,571.8	5,440.6	6,495.6	7,054.6	8,225.2
External	5,364.1	4,745.5	4,615.8	4,691.2	4,408.6	5,872.7	7,238.6	8,621.0	10,244.9	11,991.5
Internal	9,619.6	8,582.6	8,029.1	7,852.7	8,458.8	10,444.5	12,679.2	15,116.7	17,299.5	20,216.7

In the first two years of the crisis, the Serbian fiscal deficit was even slightly lower than the one in the EU. However, starting in 2010-2011, the majority of the EU member countries abruptly declined their respective deficits, mainly through increasing taxes, whereas the Serbian deficit remained at an almost unchanged level of the year 2009, ranging between 4.5% and 5% of the GDP. The problem of the fiscal deficit in the year 2012 and the forthcoming years is in the range of alarming proportions which, due to bad macroeconomic indicators, can make it impossible for the country to service its own obligations and the public debt crisis.

Fiscal consolidation started in 2012 mostly by measures affecting incomes, by the increase and alteration of tax rates, and in lesser extent by the limiting growth of wages in public sector and pensions. In 2013 the goods export was increased by 25.8% and the import by 5.1%. The current account deficit was reduced by the two-fifths, which, in addition to the increase in exports, contributed to fiscal consolidation. Increased taxes on corporate income (from 10% to 15%) have positive effects. In the first 10 months of 2014, the nominal and real growth of 33% and 30.3% respectively were recorded, compared to the same period in 2013.

In 2014, the economy fell into recession for the third time in six years, partially due to the devastating floods in May, 2014. Combining falling domestic demand, good agricultural outcome in 2013 and 2014, and low growth of regulated prices in 2014 caused the inflation to be pushed below target. Public debt has risen promptly and is estimated to have reached about 70% of GDP in 2014, while the fiscal deficit in 2014 was close to 7.5% of GDP.

4. CURRENT FISCAL MOVEMENTS

Public debt in February 2015 reached 23.7 billion Euros, or 71.9% of GDP. The exports of goods in January 2015 were 777.3 million Euros, while the imports were 1,046.2 million Euros, which was an increase of 6.1% and 3.9%, respectively. Overall the deficit was 268.9 million Euros, 5.9 million Euros less (-2.1%) than in January 2014. Export-import ratio stood at 74.3% (1.6% higher than in January 2014). The current account of the deficit was reduced by 119 million Euros compared to December 2013, primarily due to a decrease in the foreign trade deficit of goods and services. Despite the negative effects of flooding during 2014, the current balance of payments (6.0% of GDP) decreased slightly compared to 2013. It is expected to continue to improve in 2015, primarily due to the effects of fiscal consolidation. Total external debt in end-December 2014 reached 26029.9 million Euros, and compared with the end of the previous year it has increased by 284 million Euros.

Consolidated deficit in February 2015 is 11.3 billion dinars. In the structure of consolidated revenue the indirect taxes make up to 41.8%, while the expenses for the salaries and pensions

have the largest share in the expenditure side, 56.7%. In the structure of consolidated revenue, the budget of the Republic of Serbia takes 58.2%, while the expenditure side takes 39.8%. There has been a downward trend in the primary deficit since the second quarter of 2012, as well as the increasing impact of the interest expense in the fiscal balance over the entire period.

The traditional measures of the sustainability of the public debt encompass the share of the balance and repayment of the public debt in the GDP, exports and budgetary incomes. Because of the balance of the public debt for the duration of the second quarter, all the measures of its sustainability have deteriorated. (Table2). In addition to the high-levels of the public debt, the rapid growth of the public debt in the last five years is even more worrying. The public debt is not sustainable if it grows faster than the capacity of the state to pay it off, to consider debt sustainable, it is necessary that its share in GDP is stable or declining, at a sufficiently low level.

Table 2: The overview of the measures of the sustainability of the public debt (in percentage) (Ministry of Finance of the Republic of Serbia and the National Bank of Serbia)

	2011	2012	2013	I 2014
Public debt/GDP	48.2	60.2	63.8	65,1
Public debt/Goods & services export	128.9	149.8	140.1	138.0
Public debt/Export of goods and services, and remittances	103.6	121.7	115.9	115.3
Public debt/ Budgetary incomes	115.7	142.4	155.2	158.7
Public debt repayment/ GDP	10.9	11.6	14.3	15.7
Public debt repayment/Export of goods and services, and remittances	23.9	23.6	26.4	28.4
Public debt repayment/Revenue	26.7	27.6	35.3	39.1

5. FISCAL CONSOLIDATION AND 2015-2017 FISCAL STRATEGY

The first significant package of the fiscal consolidation measures were adopted at the end of 2012. Measures were related mainly to the revenue side, considering the increase of the large number of tax rates. The budget of the Republic of Serbia in 2014 continued the restrictive fiscal policy. The increase in the value added tax from 8% to 10% was expected to affect the revenue side, and there were positive expectations regarding the fight against the gray economy. The target deficit is very high because the increase of expenses is caused by the growth in interest rates, and the problem solving of the public and financial sector requires additional expenses.

During 2014, due to the implementation of the parliamentary elections and the consequences of the catastrophic flooding in May, the expenditures were further increased, and were additional funds to finance the troubled parts of the public sector were allocated. The fiscal consolidation measures have not yielded the expected result from certain tax categories. This is primarily related to VAT and excise tax on tobacco products as long as VAT revenues are lower than expected on several grounds. On the one hand there is still a low purchasing power of the population, inherited from the past, which is reflected in household consumption, while

on the other hand, due to the flooding that occurred in May, there was a reduction in domestic production, which also affects the decrease in demand. Also, there was a change in consumption patterns since the demand for domestic products was substituted with demand for the imported goods, which further reflected on the collection of VAT on the imported goods, which in the first ten months of the current year compared to last year achieved the nominal and real growth of 10.4% and 8.1%, respectively, while the reduced domestic production affected the lower recoveries of gross and net domestic VAT.

The medium-term fiscal frameworks with the proposed measures of fiscal consolidation provide a significant reduction in the general government deficit up to 3.8% of GDP by 2017, and stabilize the public debt levels and reversing its trend (78.7% of GDP in 2017). This implies a cumulative adjustment in the deficit of 4% of GDP. The targeted deficit in 2017 is 3.8% of GDP. After a strong reduction of the deficit in 2015 of around 2% of GDP, in the following two years the adjustments will be somewhat lower. It should be noted that the application of specific measures leads to an increase in certain expenses, which reduces the effects of the adjustment. The projections of the fiscal aggregates in the period of 2015 - 2017 are based on the projections of macroeconomic indicators for the specified period, planned tax policy that implies further harmonization of the laws and the directives of the EU and the appropriate measures on the revenue and expenditure side, including the reform of large public companies.

Table 3: The fiscal aggregates in the period of 2014-2017, in% of GDP, the scenario without the use of fiscal consolidation (Ministry of Finance of the Republic of Serbia)

Year	Estimation	Projection		
	2014	2015	2016	2017
Public revenues	40.9	40.3	39.5	39.1
Public expenditures	49.0	47.6	46.3	45.9
The consolidated fiscal result	-8.1	-7.3	-6.8	-6.8
The debt of the government sector	69.9	78.7	83.1	86.1
Real GDP growth	-2.0%	1.0%	1.3%	1.8%

Fiscal consolidation measures in the period from 2015 to 2017:

1. The reduction of salaries of the public sector employees- the saving on this basis at the level of the general government should be about 0.5% of GDP annually;
2. Reducing pensions- it is estimated that the impact of these measures on the deficit reduction is to be around 0.5% of GDP;
3. New rule for the indexation of wages and pensions- the effects of these measures are not significant in the first two years (0.1 - 0.2% of GDP), but the effect in 2017 will be around 0.5% of GDP as significantly higher indexation predicts.
4. The rationalization of the public sector- reducing the number of employees by 5% annually in the next three years should bring savings of around 0.3% of GDP annually. It is calculated that the largest part of this reduction will be achieved by natural turnover of staff, by retiring, with limited filling of the vacancies.
5. Reducing subventions- in 2015, the effects on the reduction of the deficit should be around 0.2% of GDP, while in 2016 this effect should increase to around 0.5% of GDP.

6. The savings on goods and services- savings of at least 0.1% of GDP;
7. The reform of the public enterprises- the fiscal effects of the restructuring of the public enterprises will be reflected in the profit payment or the budget financing via dividends. On this basis an increase is expected to go between 0.3% and 0.5% of GDP annually.
8. The fee for gas transport- 0.2% or 0.3% of GDP annually;
9. The financing of local self-government- should reduce the general government deficit to around 0.2% of GDP.

Table 4: Basic fiscal aggregates in the period 2014-2017 in% of GDP, scenario with the implementation of fiscal consolidation measures (Ministry of Finance of the Republic of Serbia)

Year	2014	2015	2016	2017
Public revenues	40.9	40.3	39.1	38.2
Public expenditures	48.9	46.1	43.8	41.9
The consolidated fiscal result	-7.9	-5.9	-4.7	-3.8
The debt of the government sector	69.9	77.7	79.2	78.7
Real GDP growth	-2.0%	-0.5%	1.5%	2.0%

Fiscal Policy after 2017 must be focused on further deceleration by decreasing the relative share of the deficit in GDP and the fiscal adjustment on the expenditure side.

The public debt of the Republic of Serbia is divided into direct and indirect obligations or commitments on behalf of the Republic and liabilities arising from guarantees, which are issued by the Republic, and in favor of other entities. Direct and indirect liabilities are further divided into domestic debt and external debt, depending on whether the obligations incurred by borrowing on domestic or foreign markets. One of the major economic and political goals of the Republic of Serbia is joining the EU therefore the most important thing is to adjust domestic methodology in accordance with the European standards. The public debt is analyzed regularly and on the basis of the criteria laid down in the Maastricht Treaty, which represents systematized guidelines to ensure the sustainability of the public debt, the fiscal system and the macroeconomic stability. According to these criteria, in the public debt it should be included, in addition to the direct obligation of the central government, and non-guaranteed debt of local authorities, but the debt based on direct and indirect liabilities on which the Republic does not make payments, should be excluded.

Table 5: The structure and the projection of the state of the public debt according to Maastricht criteria by 2017 (in billion dinars) (Fiscal Council of the Republic of Serbia)

	2013	2014 projection	2015 projection	2016 projection	2017 projection
Total direct obligations	1912.4	2307.6	2511.0	2712.0	2893.5
guaranteed debt	209.0	198.6	233.8	226.5	192.4
Other government sector debt	5.6	2.2	1.3	0.7	0.4
Debt of local authorities	81.3	84.3	95.3	102.4	109.7
Debt of social security institutions	0	0	0	0	0
Public debt of the Republic of Serbia	2208.3	2592.7	2841.4	3041.6	3196.0
Public debt of the Republic of Serbia/GDP	57.0%	66.8%	71.6%	72.5%	71.7%

6. CONCLUSION

Given the most important strategic goal set by the Republic of Serbia – its membership in the European Union – and apart from the numerous structural and administrative adaptations, it is important that the ratio between the basic economic indicators and the values anticipated by the Maastricht criteria should be kept in check. Although the fulfillment of the convergence criteria is not a condition for being granted a membership in the Union, it certainly represents a goal towards the accomplishment based on which we should direct the conducting of the economic policy. The analysis of the so-far fiscal movements in Serbia as well as the projections of those movements present a clear picture of which extent we are far away from the fulfillment of the Maastricht criteria. However, the improvement of all the aforementioned fiscal elements must primarily have as a goal the improvement of the efficiency of the domestic economy, the reduction in unemployment as well as the stability of the domestic currency. What is important is to change the course of the overall economic policy and especially the fiscal policy. To avoid the crisis of the public debt, which realistically threatens, it is necessary that the public finance should be consolidated. The additional problem is the one represented by the weak efficiency of the economy which should be improved in terms of generating a wider scope of the GDP and exports. Just as it is the case with a number of countries within the European Union when the creation of a monetary policy is concerned, Serbia must obey a thrifty life style and use a restrictive fiscal policy to try to restore the weary economy. Big public consumption and its unfavorable structure are the consequences of conducting an inadequate economic policy based on the inflow of foreign capital according to the privatization activities and speculative possibilities. When, due to the effectualization of the economic crisis, such a policy has proved to be impossible to sustain, it has become clear that Serbia's approach in conducting a fiscal policy, which is inclusive in responding to the question of a structural deficit, a tax reform and an overall reform of the public sector is a good way to achieve the results predicted by the Maastricht convergence criteria.

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TOWARD ECONOMIC REWARD: CORPORATE SOCIAL RESPONSIBILITY COMMUNICATION OF SMEs

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ABSTRACT

In business world of today, small and medium-sized enterprises (SMEs) play the part of an increasingly important role in the world economy. Currently, SMEs are thought to be the backbone of economic growth in many countries, contributing to the creation of job opportunities and acting as suppliers of goods and services for large organizations. Internationally, various studies are related to the importance of SMEs for a country's development and economic stability. SMEs also play an important role in European economies and their form according to some authors is a pillar of business structure. Academics emphasise in many ways Corporate Social Responsibility (CSR) as a mantra for our time, a time which they characterised as "the era of compassionate capitalism" or "the age of sustainability". CSR communication is an important element of the strategic approach to communication, which rests on the idea that enterprises can create a strong identity by implementing a systematic and proactive strategic communication practice within their organisations, establishing the way for "the building and maintaining of favourable reputations and relationships with key stakeholders".

Keywords: *Corporate Social Responsibility (CSR), CSR Communication, Small to Medium Sized Enterprises (SMEs)*

1. INTRODUCTION

In today's business world, new enterprises are perceived as an important source of job creation, innovation and development (Pistol and Tonis, 2014, p. 500). Longo, Mura and Bonoli (2005, p. 29) feel that in the entrepreneurial world the choice of aims to be pursued is a matter that is frequently trivialized and does not receive the attention it deserves. The objectives of a enterprises, observed by Longo, Mura and Bonoli (2005, p. 29) are taken for granted and are identified, from case to case, with the profit or the production of wealth or the creation of value for the shareholders; and it is presumed the matter ends there. Due to global competition, technological progress and the new needs of consumers, competitive paradigms are in constant change and those changes are leading enterprises to compete simultaneously in different dimensions such as design and product development, production, distribution, communication and marketing (Franco, Santos, Ramalho and Nunes, 2014, p. 265). Currently, small and medium-sized enterprises (SMEs) face increasingly more complex and dynamic contexts where obtaining and maintaining competitive advantage is certainly rather complicated and one of the main objectives is full consumer satisfaction, not only with the use

of the product but also regarding the externalities generated by companies (Fraj-Andres, Lopez-Perez, Melero-Polo and Vazquez-Carrasco, 2012, p. 266). Therefore, concepts like Corporate Social Responsibility (CSR) arise as strategic concepts because they allow firms to position their objectives and activities in line with society (Fraj-Andres, Lopez-Perez, Melero-Polo and Vazquez-Carrasco, 2012, p. 266).

2. THE ROLE OF SMALL AND MEDIUM-SIZED ENTERPRISES

Nowadays, the new enterprises are recognized as the main source of job creation, innovation and further development (Pistol and Tonis, 2014, p. 500). Small and medium-sized enterprises (SMEs) play an increasingly important role in the world economy, and are considered the backbone of economic growth in many countries, contributing to the creation of job opportunities and acting as suppliers of goods and services for large organizations (Franco, Santos, Ramalho and Nunes, 2014, p. 267). On an international level, various studies are related to the importance of SMEs for a country's development and economic stability (Franco et al., 2014, p. 267). SMEs have characteristics that distinguish them from large organizations and these differences are not limited to size, but also involve objectives, management style and marketing itself (Franco et al., 2014, p. 266). For this reason, authors claim it has been demonstrated that traditional marketing theories are not able to give a satisfactory explanation of marketing in SMEs. Therefore, the role of marketing in SMEs has aroused the interest of many investigators (Franco et al., 2014, p. 266). The complexity of the business environment in which SMEs conduct their business is growing very fast according to García, Castillo Díaz and Carrillo Durán (2012, p. 287).

Importance and advantages of SMEs described by Franco et al. (2014, p. 267) are summarized in their paper as:

- their size often allows them to obtain competitive advantages,
- organizational structures in small firms are much less rigid, sophisticated and complex than in large firms,
- simple systems and procedures, which permit flexibility, immediate feedback, a short decision-making chain, and better understanding of and a faster response to customer needs.

Significant questions are also asked and appeared in the work of Longo, Mura and Bonoli (2005, p. 30) in the following form:

Which is the objective that administrators and managers should pursue? Should it be that of making the maximum profit or should the objective be a vaster one, in order to create value for all the stakeholders? In the latter case, what does this vaster objective consist of? Who are the stakeholders of the company and what are their expectations regarding value? Are the responsibilities of administrators and managers only those established by law or do these people have further responsibilities in addition to the legal ones, namely responsibilities of ethical and social nature which oblige them to serve their customers' needs in the best way possible, to respect and make the most of collaborators, to participate in environmental issues beyond the limits prescribed by law, and so forth?

3. MORALITY OF SMALL AND MEDIUM-SIZED ENTERPRISES AND USAGE OF CORPORATE SOCIAL RESPONSIBILITY CONCEPT

A new sense of morality has appeared in many parts of Western society where "companies are expected to share responsibility with governments for tackling issues which, in the old world economy, they would have been ignored in their pursuit of profit" (Schmeltz, 2012, p. 29).

SMEs and large companies according to García, Castillo Díaz and Carrillo Durán (2012, p. 286) share the environment in which they operate. Authors (García, Castillo Díaz and Carrillo Durán, 2012, p. 286) characterized environment to:

- economies that are global in nature and rich in information
- a competitive market led by intangibility and expressive and symbolic consumption patterns
- rapid innovation diffusion and product and service obsolescence; and
- crowded with cacophonous and abundant offerings.

According Fassin et al. (2014, p. 433) after decades of renewed academic research into the importance of the idea that business organisations have social responsibilities, the concept and the usage of Corporate Social Responsibility (CSR) remain complex, multifaceted and prone to national interpretations. Longo, Mura and Bonoli (2005, p. 28) agree that it is not simple to propose a univocal definition of CSR despite there being a vast amount of literature on the subject. Ayuso, Roca and Colome (2013, p. 497) also pointed how a universally accepted definition of CSR does not exist but it become an increasing area of interest for both the business world and academic community.

Schmeltz (2012, p. 29) also argues CSR as in many ways a mantra for our time. A time which can be characterised as “the era of compassionate capitalism” or “the age of sustainability”, and a time in which the traditional roles of companies, consumers, NGOs, state and society have changed dramatically (Schmeltz, 2012, p. 29). In their review of the literature authors (Fassin et al., 2014, p. 433) divide the vast existing research on CSR into studies at three levels: institutional, organisational and individual. Ayuso, Roca and Colome (2013, p. 497) state the CSR concept generally refers to “the responsibility of enterprises for their impacts on society” and focuses on the role of companies beyond their traditional scope of seeking profit, and evolved from emphasizing the social responsibility of business to incorporating also the concern for environmental protection. From Longo, Mura and Bonoli (2005, p. 29) literature review it is clear that the problems surrounding social responsibility are problems that concern the way a company is governed and run as well as the kind of relations it holds with its stakeholders. CSR concept also could be considered as an “umbrella” term, incorporating the tenets of; environmental sustainability, business ethics, governance, public relations, stakeholder analysis and relationship marketing (Barthorpe, 2010, pp. 4). According to Nagypál (2014, p. 328) CSR concept and company level sustainability are popular issues among policy makers and company representatives.

In their paper Longo, Mura and Bonoli (2005, p. 30) provided significant contributions from previous researches and classify CSR into four classes:

- *Economic responsibility*. The primary aim of any company is to make profit: without profit it is destined to close down. For this reason the company has, above everything else, an economic responsibility and only subsequent to this can any other kind of responsibility be taken into consideration. To honour this economic responsibility the company has the obligation to manufacture the goods and services society needs and sell them, thereby generating a profit.
- *Legal responsibility*. Companies operate within a society that has specific regulations, laws and standards of behaviour; society expects companies to respect these throughout their business activity.
- *Ethical responsibility*. The two classes of responsibility analysed above follow ethical codes of behaviour that society defines in the form of laws or by means of explicit

expectations that companies cannot ignore and disappoint. By undertaking a moral responsibility companies voluntarily decide to satisfy certain expectations that, despite their not being explicit or backed up by regulations, are nevertheless expectations that society wants business to fulfil. Therefore, such expectations regarding the behaviour of companies transcend mere economic and legal considerations.

- *Discretionary responsibility.* Companies satisfy, once again voluntarily, expectations that have not yet become apparent in its interlocutors; it is the companies that anticipate needs and necessities and they satisfy them before they actually arise.

It's important to emphasise, while sustainability investigates the system of relationship of the "economy–society–nature triangle" starting from the macro level and from the aspect of global problems (effects), CSR does the same starting from the micro level, from one of the "causes" of the problems, the companies (Nagypál, 2014, p. 328).

However, Longo, Mura and Bonoli (2005, p. 28) emphasis that the essential point of the CSR concept can be recognized in the voluntary undertaking of a commitment, towards third parties, by the management of a business and that undertaken commitment goes beyond the legal obligations that weigh heavily on the management of the company's activity. As two fundamental reasons for the difficulty, authors (Longo, Mura and Bonoli, 2005, p. 28) in their paper described encountered in providing a univocal definition:

- it is not possible to fully define how far the responsibility extends, both on account of its complexity and of the manifold nuances it takes on with respect to the different stakeholders of the company; and
- the only partial acceptance by experts of economic matters to unite in a single vision, with no priorities, the economic responsibility of the company towards third parties, in particular with respect to holders of capital at risk, with social responsibility.

Nagypál (2014, p. 328) argues CSR concept as a self–defining concept that involves several issue areas:

- environmental protection,
- countering bribery,
- respecting employees' rights and
- philanthropic activity as well.

When it comes to Nagypál (2014, p. 328), most of these areas are extremely relevant in the Central and Eastern Europe (CEE). However, in the latest communication by the Commission, Nagypál put across (2014, p. 328) that the voluntary nature of CSR is not stressed any more, and that the definition only states that CSR is "the responsibility of enterprises for their impacts on society". In her paper Nagypál (2014, p. 328) also highlights that European Commission communication emphasises "respect for applicable legislation, and for collective agreements between social partners, is a prerequisite for meeting that responsibility". According Nagypál (2014, p. 328), there is still an open question whether, or to what extent CSR can contribute to sustainability goals. Nagypál (2014, p. 328) also commented that there are some aspects of the CSR concept that make it more acceptable and feasible for companies than the "ambiguous" concept of sustainable development.

These days researchers agree according Ellerup Nielsen and Thomsen (2009, p. 179), that CSR is a contextual and dynamic concept, and that differences in CSR between different countries are due to a variety of "longstanding, historically entrenched institutions". The

differences emerge “against a background of historical, political, scientific, cultural – and of course, business developments” (Ellerup Nielsen and Thomsen, (2009, p. 179).

The new CSR strategy of the EU suggests that the scepticism about CSR according to Nagypál (2014, p. 328) was partly established, as the communication published in 2011 highlights that CSR should be more definite and transparent, results should be more measurable and sector specific development is also desired. Nagypál (2014, pp. 328-329) also reveals in her paper that the special conditions of SMEs were also mentioned in this document, “...In implementing this agenda, the Commission will at all times take account the particular characteristics of SMEs, especially their limited resources, and avoid creating unnecessary administrative burdens“. Nagypál observed that CSR is mostly interpreted as the contribution of large enterprises, corporations to sustainability, although the behaviour of SMEs due to their important role in economic production and employment as well as their consumption of natural resources and the total emission they are responsible for is essential to emphasize (Nagypál, 2014, p. 329). However, business development in general also calls for an understanding and acknowledgement of the relevance of implementing CSR to achieve legitimacy among central stakeholders, and to increase business and market performance (Ellerup Nielsen and Thomsen, 2009, p. 176).

4. SMEs EUROPE OVERVIEW ON CSR CONTRIBUTION

SMEs play an important role in the economy in Europe (Nagypál, 2014, p. 327). A common characteristic of European economies is the fact that SMEs form is a pillar of their business structure (Franco, Santos, Ramalho and Nunes, 2014, p. 267). Nagypál (2014, p. 329) made the point that former European Commissioner for Enterprise and Industry, Günter Verheugen stated: “SMEs are the engine of the European economy. They are an essential source of jobs, create entrepreneurial spirit and innovation in the EU and are thus crucial for fostering competitiveness and employment“. On the other hand, governments and other public authorities in Europe are putting increasing pressure on SMEs in order to make them realise that respect for ethical codes of conduct and CSR is not only a concern of multinational corporations (Ellerup Nielsen and Thomsen, 2009, p. 176). Also, Longo, Mura and Bonoli (2005, p. 28) agreed that the SMEs are particularly sensitive to the problems surrounding social responsibility: the small entrepreneur “experiences” in person, together with his family and his employees, the territory in which he operates, and shares with them both results and worries. The relationship with the local authorities described as far closer and more direct than that of a large business (Longo, Mura and Bonoli, 2005, p. 28). “Entrepreneurial spirit” according Nagypál (2014, p. 329) should in an ideal case include a responsible attitude, that is, responsibility for internal and external stakeholders of the company. After reviewing latest sources Nagypál (2014, p. 329) concluded how “the academic literature reveals the need to undertake more in–depth field studies in order to discover the organisational culture, the difficulties and the perceptions surrounding CSR in SMEs”.

Nagypál (2014, p. 328) also provide a review of the CSR concept which was emerging in Europe as early as from the 1990s, getting popular in CEE region with some significant delay, from the mid 2000s. According to Nagypál (2014, p. 328) entering the European Union also contributed to the spread of CSR in new Member States, by making EU documents relevant and fostering the concept among decision–makers. Toward to the green paper of the European Union CSR is “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (Nagypál, 2014, p. 328).

On a further note, Nagypál (2014, p. 329) in her work recognized important role in CSR of SMEs in direction of closer relationship with local communities versus large enterprises. Author argues that it is a problem that CSR tools are usually developed and available for large companies with special management practices and even SMEs committed to responsible behaviour lack appropriate CSR tools and they are often far from realising the advantages of their positive attitude (Nagypál, 2014, p. 329).

Barthorpe (2010, p. 7) emphasises how the UK government launched the “International strategic framework into corporate social responsibility” in March 2005 and the framework sets out the overall objectives, priorities, and the main lines of the UK government’s approach to CSR.

The survey among Italian SMEs (Longo, Mura and Bonoli, 2005, pp. 40-41) that have been analysed shown that the majority of Italian SMEs companies have therefore perceived the social responsibility concept and welcome it not only because they have moral or ethical reasons for doing so (51 percent of the companies examined), but also because they maintain that this contributes to the growth of the company’s own value, by means of an improvement in company image, ensures the fidelity of customers and an improvement in relationships with employees and with the local community.

The survey among Hungarian SMEs, for example showed that CSR of SMEs can be developed not only by direct financial support but also by improving awareness of their customers and motivating large companies to support their suppliers’ action (Nagypál, 2014, p. 345). The results of survey among Hungarian SMEs point out that even SMEs with good CSR practices know and apply relatively few CSR tools (Nagypál, 2014, p. 345). According Nagypál (2014, p. 345) one of the most important reasons for this is that these tools are usually developed for large companies. Results shows that some tools developed especially for this segment are completely unknown among respondents (Nagypál, 2014, p. 345). Good examples are present, still better cooperation along the supply chain and the development and application of more CSR tools and measures could improve awareness and performance of CEE SMEs, contributing to their competitiveness on European and world-wide markets and sustainable development on the long run. (Nagypál, 2014, p. 346).

Worth to mention the findings among SMEs in Norway, which is closely associated with the European Union through its membership in the European Economic Area show that it is crucial to view the embedding process of CSR as part of a strategic implementation process, which is capable of interlinking and interlocking business goals with human, social and environmental objectives in order to foster a financially and socially responsible business (Hoivik, 2011, pp. 1067).

5. RELEVANCE OF CSR COMMUNICATION

Schmeltz observed (2012, p. 29) that is no longer a sharp distinction between doing good, and doing business and pointed that often these two are compatible. According Schmeltz (2012, p. 30) the value of working with CSR in a corporate context is, however, limited if the engagement is not communicated to relevant stakeholder groups. However, Schmeltz (2012, p. 30) also made the point “Corporate Social Responsibility is an extremely difficult message to convey”. According to Ellerup Nielsen and Thomsen (2009, pp. 176-177) concepts such as stakeholder management, reputation management and supply chain management are now

relatively widespread, so SMEs need to ask themselves whether they should increase their activity level and their communication or documentation of CSR. Further, Ellerup Nielsen and Thomsen (2009, p. 177) described surveys and research in the field demonstrate that many SMEs tend to handle CSR activities unsystematically and on a personal ad hoc basis. Authors indicate that in one hand, SMEs should learn from larger organisations when it comes to managing CSR and informing both internal and external stakeholders of their best practices and on the other hand researchers tend to agree that CSR communication is a delicate issue, the problem being that although corporations are encouraged to engage in CSR to build strong reputations, stakeholders are often reluctant to receive too much information about their CSR engagements (Ellerup Nielsen and Thomsen, 2009, p. 177). Despite the lack of research on small businesses and their communication activities, the SMEs are limited by their own conceptions (García, Castillo Díaz and Carrillo Durán, 2012, p. 287). Paradoxically, communicating about CSR, a concept which is traditionally seen as a voluntary corporate initiative, is no longer optional but actually mandatory in some countries (Schmeltz, 2012, p. 30).

Ellerup Nielsen and Thomsen (2009, p. 178) argues CSR communication as an important element of the strategic approach to communication, which lies on the idea that companies can create a strong identity by implementing a systematic and proactive strategic communication practice within their organisations, paving the way for “the building and maintaining of favourable reputations and relationships with key stakeholders”. Recently, reveals Ellerup Nielsen and Thomsen (2009, p. 179) the association of CSR with strategy is expressed in headings such as: CSR as organisation development, CSR as stakeholder management, CSR as reputation management, etc. Other attempts have been made to elaborate classifications based on matters related to CSR (Ellerup Nielsen and Thomsen, 2009, p. 179).

Sones and Grantham (2009, p. 144) in their paper describe CSR communication as a process and with an inherently focuses on the good deeds performed by the company in relationship with various stakeholders and authors emphasizes CSR goals and achievements as inspired by its top decision makers. Authors made a point at the frame that a decision-maker adopts are controlled partly by the formulation of the problem and partly by the norms, habits, and personal characteristics of the decision-maker (Sones and Grantham, 2009, p. 144). Ellerup Nielsen and Thomsen (2009, p. 179), observed two models that may help to explain how companies can best make decisions about channel and issue and communicate about their CSR initiatives. First one according their paper is an “inside-out approach” that suggest how managers can manage their CSR activities to achieve a favourable CSR reputation. Second one develop a CSR communication model with two CSR communication processes targeting different stakeholder groups: “the expert CSR communication process” and “the endorsed CSR communication process”, the former being direct and the latter being indirect, legitimised or endorsed by a third party (Ellerup Nielsen and Thomsen, 2009, p. 179). While direct communication typically passes through formal channels and genres such as social or sustainability reports, web sites or brochures, etc., indirect communication typically finds its way to target groups through gatekeepers such as journalists of the local press, mouth-to-mouth communication from employees to local community actors or consumers, etc. (Ellerup Nielsen and Thomsen, 2009, p. 180).

According Schmeltz (2012, p. 30) companies tend to shy away from the communication aspect of CSR, either because they are not comfortable communicating their own view on

corporate responsibilities, or because they are oblivious of the critical importance of such communication activities. Equally author argues that in the academic world, many theorists and researchers have contributed to the field of CSR, but without paying much attention to the rhetorical and discursive challenges of CSR (Schmeltz, 2012, p. 30).

6. CONCLUSION

Based upon survey, SMEs in their primarily associate the idea of reputation with being a good workplace, which is considered a strong point in itself (Ellerup Nielsen and Thomsen, 2009, p. 186). Furthermore, in order to benefit more from being a good workplace, SMEs need to strengthen both their direct and their indirect communication, for example by drawing on the national and the local press (Ellerup Nielsen and Thomsen, 2009, p. 186). Results of Ellerup Nielsen and Thomsen survey (2009, p. 186) in a strategic communication perspective, shown that SMEs need to reflect on how to strengthen and develop their identity and their image or reputation as good corporate citizens. Authors describe (Ellerup Nielsen and Thomsen, 2009, p. 186), for instance, by incorporating relevant press networks SMEs will be able to benefit more from the PR potential inherent in their regular exposure in newspapers and journals (business portraits, debate columns, chronicles, letters from readers, etc.). Ellerup Nielsen and Thomsen (2009, p. 186) emphasise that only in this way can they improve their indirect communication to the public and to the community and attract attention to the many good things they do. Other (perhaps less expensive) according same authors initiatives could involve identifying the potential for exposure in business networks, cross-sector partnerships, awards, etcetera. Various forms of cooperation with students and other forums also constitute a platform for exploiting their communication potential more explicitly (Ellerup Nielsen and Thomsen, 2009, p. 186). Mentioned survey described that many business-to-business SMEs are known only to their own employees, customers and suppliers. By using the intranet together with external web pages, and by focusing on the possibilities offered by interactive technology such as debate forums and weblogs, SMEs can strengthen their formal communication in a manner which will not necessarily be perceived as self-promotional by critical stakeholders (Ellerup Nielsen and Thomsen, 2009, p. 186).

Good practices can be seen on Hungarian market which include the specialisation of some non-governmental organizations on development and introduction of “SME oriented and tailored” tools, such as “eco mapping” or “Eco Management and Audit Scheme easy” (Nagypál, 2014, p. 346). Another recent remarkable initiative from the same market was that a large Hungarian bank assisted 50 SMEs in becoming acquainted with ISO 26000 - a standard about CSR, developed by ISO in a long-term process, involving stakeholder dialogue - in 2011 (Nagypál, 2014, p. 346). The European CSR award is also available for Hungarian companies as well, there are two categories in which one can apply: large companies and the SMEs (Nagypál, 2014, p. 346). It is also a great opportunity for SMEs to improve and communicate their commitment and action (Nagypál, 2014, p. 346). All of the above is example of good practice also applicable to other markets and further encourage SMEs on their CSR communication.

In addition authors emphasises that the very organisation of CSR can in itself strengthen the CSR profile of SMEs (Ellerup Nielsen and Thomsen, 2009, p. 186). One possibility for them according authors is to consider marketing and perhaps also PR as a function that is closely related to the general management and the personnel management function (Ellerup Nielsen and Thomsen, 2009, p. 186). Furthermore, doing this makes it possible to integrate communication with employees and external market communication, while increasing the

synergy effect between the employees as ambassadors in the local community and the direct market and PR communication (Ellerup Nielsen and Thomsen, 2009, p. 186).

Longo, Mura and Bonoli (2005, p. 41) in their paper concluded and emphasised connection between a number of companies with good social and environmental records indicate that these activities can result in better performance and can generate more profits and growth according Commission of the European Communities and raises the issue of social activity can lead to economic rewards and business should attempt to create such a favourable situation. Finally, CSR at some extend can contribute to sustainability goals on micro and macro level.

Also, as Fraj-Andres, Lopez-Perez, Melero-Polo and Vazquez-Carrasco survey (2012, p. 277) reveals that some managers think that CSR activities allow some type of differentiation and have a greater consideration for competitors and customers, therefore it is essential for companies to be market-oriented since this will allow them to adapt constantly to future changes that may occur in social, economic, technological and legislative aspects. In the end, as Barthorpe (2010, p. 7) also concludes striving how businesses need to take CSR more seriously than ever before, not only as a feel-good exercise but CSR describes as it is of strategic and financial importance to every business.

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TESTING OUT THE "QUIET-LIFE" HYPOTHESIS ON CROATIAN BANKING SECTOR

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ABSTRACT

According to "Quiet-life" hypothesis (QLH) (Hicks 1935), market power can lead to lower cost efficiency, since it allows managers to enjoy a portion of the monopoly rents in the form of relaxed cost management. Although theoretically well founded, QLH empirical evidence is far from conclusive which represents one motive for this research. Additionally, better understanding of bank market power and efficiency relationship could result in social benefit as bank output is input for other sectors in economy.

By testing out the QLH we extend the empirical work done so far on bank competition in Croatia on the sample of commercial banks (1994-2014). In the first step we use the Distribution free approach for the calculation of Competition efficiency frontier and X-efficiency. In the next step, we model bank efficiency with market power and the set of control variables. Negative relationship between market power and bank efficiency, which would prove QLH, is examined also for a sub-sample of banks and historical periods in Croatian banking sector. Although we provide empirical evidence generally supporting the QLH in Croatia, the connection between market power and bank efficiency is economically rather small. However, we believe that bank competition policy should definitely include "Quiet-life" considerations.

Keywords: *Quiet life hypothesis, Croatia, banks*

1. INTRODUCTION

By arguing that "the best of all monopoly profits is the quiet life", Hicks (1935) suggested that the exercise of market power should be examined outside the traditional monopolistic rent (price exceeding marginal cost) prism. By relaxing over cost efficiency, market power can be used outside price strategy. Since the banking sector produces inputs for other sectors, and since the inefficiencies from banking sector could translate into higher cost of financial input of other sectors, it is vital to keep researching the connection between banking competition and efficiency. Also, with the increasing pace of the process of banking market consolidation in many CEE countries after the crisis, the policy makers should consider efficiency effect as well as mispricing effect of market power. In modern empirical work, Quiet-life Hypothesis (QLH) was pioneered by Berger and Hannan (1998) who showed (for U.S. banking sector) not only that market power leads to efficiency loss, but also that this loss is higher compared with traditional dead weight loss.

Our analysis considers a single country, making ground for a more reliable results since some factors that usually play an important role in influencing firm behavior (like legal system, historical and social characteristics) are homogenous. On the other hand, to make our analysis less dependent on the assumptions of the error term, we use Distribution-free approach (DFA) for calculation of both competition and efficiency. Also, to better explain the competition implication in form of efficiency, we also estimate sub-samples of banks and time periods. Therefore, we continue with the work done so far on examining the issues of market

competition and efficiency in the context of Croatian banking sector.³⁹ However, unlike the majority of work done so far that was focused on specific historic circumstances on Croatian banking sector (like privatization, foreign ownership and regulation changes) we put the emphasis on the relationship between those two phenomena.

The paper also contributes the current banking sector industrial organization literature, especially in the context of CEE countries. Following Bolt and Humphrey (2010) and Kraft and Huljak (2011), we use the Competition Efficiency (CE) frontier as a measure of market power. To the best of our knowledge, this paper is the first to use the CE frontier for testing the QLH. Further on, we calculate bank X-efficiency (XE) and emphasize the advantage of this measure compared with balance sheet and profit and loss account based measures. Finally, and perhaps greatest contribution of the paper, we question whether the traditional method of observing the social cost of bank market power underestimates the social cost, since the monopolistic mark-up (P-MC) is actually greater if market power leads to cost efficiency loss, meaning that the bank marginal costs could include a part of monopolistic rent themselves.

This paper is organized as follows: Section 1 provides introduction and background on the consolidation of the Croatian banking sector and the sector's performance. Section 2 explains the data and the methodology. Section 3 displays and elaborates the results and Section 4 provides tentative conclusions.

1.1. The quiet life hypothesis

Hicks (1935) argued that market power can be used outside the pricing strategy by simply replacing monopoly rents with discretionary expenses or less effort. The logic behind this idea was that more relaxed position of monopolist puts him in the position where seeking cost efficiency is not necessary. Subsequently, the firm's profits would be lower compared with the potential ones and therefore inefficiencies could be reduced with more competition. Demsetz (1973) agrees that competition and efficiency could well be related in some way. However, he claims that more efficient firms have lower costs due to superior cost management and that they gain market share with time leading to more concentrated market. Schmidt (1997) makes theoretical model to show that increase in competition raises probability of liquidation, which positively affects managerial efforts, but it also reduces profits which makes the provision of high effort less attractive making the total effect less attractive.

According to Berger and Hannan (1998), there are several reasons why there should be a negative relationship between bank market power and cost efficiency. First reason is that the market power allows banks to charge prices that are higher than in competitive levels allowing banks to enjoy "quiet life" by decreasing their efficiency. Second reason is that market power allows banks to pursue other goals (usually strategic) while being relaxed regarding profit maximization. Thirdly, management of banks with market power sometimes spend time and resources investing in maintaining or increasing the level of market power which increases cost inefficiency. Lastly, market power allows inefficient management to persist without any intention to pursue goals other than maximizing firm value. Berger and Hannan (1998) accepted the quiet life hypothesis on the USA banking market. However, they used concentration measures as proxies for competition. Similar work was carried out by Al-

³⁹ In the context of Croatia, researchers have employed Stochastic Frontier and Data Envelopment analysis to study efficiency (Kraft and Tirtoroglu 1998, Jemrić and Vujčić 2002, Kraft, Payne and Hofler 2006), and the Lerner Index and Panzar-Rosse H statistic to study competition (Kraft 2006).

Jarrah i Gharaibeh (2009) using the Jordan data. On the other hand, Maudos i de Guevara (2007) used Lerner index of market power to calculate social loss of reduced bank efficiency to be around 0.35% GDP on average for EU-15. Relatively similar results were produced by Solis and Maudos (2008) in the case of Mexico.

Turk-Arisis (2010) included Croatia in the sample of Developing countries and confirmed the QLH. Coccoresse and Pellecchia (2011) investigated the QLH for Italian banking sector and concluded that QLH effect, although existing on the market, is economically not important. Fare and others (2011) used the data for Spanish banking sector and concluded that QLH is valid only for a sub-sample of banking sector. However, all of the research above used Lerner index as an indicator of market power and used it as a control variable to model efficiency or used some approximation of market power (usually HHI index). Koetter M. and others (2012) show the elasticity of results to market power calculation while using the Lerner index. On the other hand Färe, R. and others (2015) use non-parametric techniques to test the QLH and conclude that the quiet life is a reality only for some banks on the Spanish market. Therefore, our decision to use a relatively new measure of market power, CE frontier, is in line with newer literature on QLH where authors leave search for flexibility in measuring market power.

1.2. Consolidation and performance of Croatian banking sector

In an attempt to increase competition in the banking market, the licensing policy during the early 90s in Croatia was rather lenient. As a result, some 60 banks were present on the market by 1997. Although some inefficient banks managed to survive most of the volatile 90s, during the 1998-99 banking crisis and its immediate aftermath, 16 banks left the market as a result of credit risk. Foreign entry (mostly after the banking crisis ending in 1999) occurred via greenfield investment and acquisition, and by 2000, the Croatian banking system was mainly foreign-owned. This new structure of ownership persisted with relatively small changes thereafter, and formed the basis for a much more stable banking sector. The process of consolidation continued in the first few years of the new century, but at a slower pace. Acquisitions were more common and outright failures less common. By 2005, the number of banks had already decreased to 34 and by the end of 2014 the number reduced further to 27.

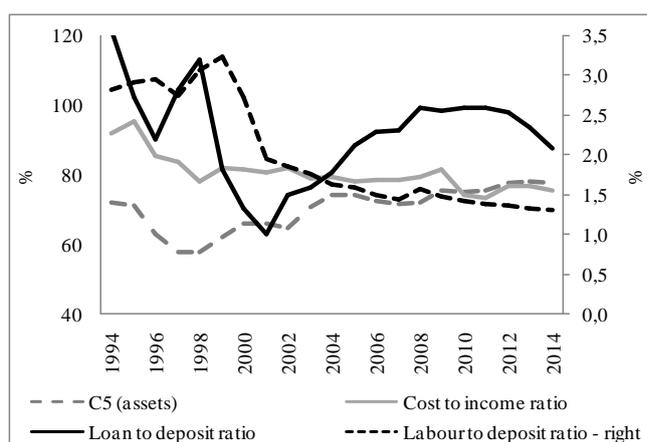


Figure 2: Standard indicators of bank competition and efficiency (authors calculation based on CNB data)

Judging from the standard efficiency indicators (Labor to deposits and Cost to income ratios), Croatian banking system was able to record significant efficiency gains over the observed (1994-2014) period. This can be attributed to technological progress (especially in deposit business) but also to continuous learning process which was stimulated by knowledge transfer from foreign owners. Foreign owners and their stable support for banks in Croatia made it possible for banks to grow faster than the deposit base which resulted with the steady increase of loan to deposit ratio after the banking crisis in the late 1990s. However, with banking sector becoming more concentrated (and average bank effectively larger) the average cost per input is decreasing. Therefore, in the process of measuring bank efficiency for testing the QLH it is obvious that we require a measure that will respect the economies of scale and that will be statistically based.

2. DATA AND METHODOLOGY

As recent studies showed, market concentration indicators have very limited power as market power proxies and standard balance sheet indicators of efficiency (like cost to income ratio) are hugely influenced by economies of scale.⁴⁰ Therefore, we use CE frontier and XE as statistically based measures. However, these measures require longer time series of data (in our case, at least six years per bank⁴¹) which creates a standard trade-off between a more detailed set of data available only for a shorter period and less detailed data available for a longer period. To keep the time series consistent and long enough, our work is limited on the data that was available since 1994. To avoid unreliable data, only banks that were present on the market for at least six years were chosen in our sample.

Unlike XE, our CE measure is rather data consuming and in order to calculate it, some compromises had to be made compared with the data used by Bolt and Humphrey (2010). This refers mostly to the indicators of unit costs. With the data on payment statistics available for Croatia only after 2005, it is impossible to measure long-run technological progress using the number of ATMs a la Bolt and Humphrey. Also, apart from shorter period of available data, some banks that did not engage in retail business did not have ATMs until 2006. Using business units instead of ATMs would not help since some banks still have only one business unit. Since this form of technological progress of banks in Croatia started later than in EU member countries, the available data (from 2005 onwards) shows constant increase of ATMs in until 2010.

Because of these constraints, our initial sample includes unbalanced panel with 72 banks over 21 years (1994 - 2014) making 877 observations overall, with 27 banks present on the market at the end of 2014 and with 23 banks present in the whole sample. All the data (except the data on GDP which comes from The Croatian Bureau of Statistics) comes from statistical and supervisory reports gathered by the Croatian National Bank. The number of banks in the sample decreases over time, with the biggest reduction the first half of the sample following the banking crisis of the 90s and the subsequent wave of bankruptcy and liquidation. In the second half of our sample, the decrease in the number of banks was far less pronounced and was mostly the result of mergers. After 2002, when 4 banks completed the legally-mandated conversion process from savings banks to banks, the structure of the banking system remained

40 As Baumol et al. (1986) stated, concentration and competition do not have to be strictly connected. Although concentration is a good base for exercising market power, even a monopolist can refrain from using market power to extensively so that he does not attract others into the industry or to end up on the regulators radar.

41 De Young (1997) used U.S. bank data to test how many years of separate cross-section regressions may be needed for random error to approach zero. The result was six years.

relatively stable with concentration levels similar to today's levels and with 90% of sector assets already in foreign ownership.

2.1. Methodology

Also, since stochastic frontier analysis uses a relatively strong assumption on error distribution from the trans-log functions, we use the Distribution free approach (DFA), which makes no strong assumptions about the distribution of inefficiency and errors but assumes that core inefficiency of a firm is constant over time. To generate our competition and cost efficiency measures, we apply the DFA method to panel data and estimate a regression using cross section data and create statistical connections between costs and observed levels of bank data variables (balance sheet data, input prices, etc.). The residuals of these cross-section regressions are assumed to contain random measurement error, temporary variations in costs, and persistent but unknown cost differences attributed to inefficiency. Averaging each bank residual across separate cross-section regressions reduces normally distributed error to minimal levels leaving only average inefficiency. When we average the residuals across a long enough period of time for each bank and then for groups of banks, the random part will average to zero and we will be able to observe the competition effect in groups of banks.

Both, the XE and CE are from a technical perspective, efficiency measures. However, one has to be careful with interpretation as higher efficiency of competition means that the bank has lower market power. Therefore, the bank or a group of banks on the CE frontier is actually a bank or a group whose revenue was the most restrained by the competition. The further a bank (or a group of banks) is from the frontier the greater its market power. This means that while we still maintain that bank revenue reflects productivity, cost and competition, we actually reverse the story and claim that revenues of banks are restrained by productivity, cost and competition.

For calculating competition efficiency, we use the standard transcendental log-function with two inputs (working and physical capital):

(1)

$$\ln(Y_i) = \theta_0 + \sum_{i=1}^5 \theta_i \ln X_i + 1/2 \sum_{i=1}^5 \sum_{i=1}^5 \theta_{ij} \ln X_i \ln x_j + \sum_{i=1}^5 \sum_{k=1}^2 \lambda_k \ln X_i \ln P_k + \sum_{k=1}^2 \pi_k P_k + 1/2 \sum_{k=1}^2 \sum_{m=1}^2 \pi_{km} \ln P_k \ln P_m$$

Where:

Y_i – spread revenue to operating costs, P_k – productivity ratios: labor deposit ratio and tangible assets to deposit ratio, X_i – input costs: price of labor, price of physical capital, X_i – unit costs: processing cost, tangible assets unit cost and output gap.

We calculate spread revenue as the product of net interest income per unit of loans and deposit amount. The labor-deposit ratio is our measure of labor productivity. We calculate it using the costs of labor to total deposits. The price of labor is calculated as the bank total personnel expenses to number of employees. As mentioned earlier, we use tangible assets (net of amortization) to deposits to explain banks' reliance on physical capital. Since finding the interest rate that would describe the opportunity cost of investing in physical assets (market rate) in our sample is very complicated, we use the aggregate implicit rate on loans as an opportunity cost of investing in physical capital. Unit cost for processing transactions is calculated as the bank average ratio of commissions and fees costs to commission and fees revenue. Tangible assets unit cost is calculated as bank average amortization cost to tangible assets. The output gap is calculated as the percentage point's difference between the GDP in a certain year and in the year in which it reached minimum level.

In a composed error framework, equation (1) can be expressed as:

(2)

$$\ln(rev/oc) = R(\ln X_i, \ln X_j, \ln P_k) + \ln e + \ln u$$

Under the DFA approach the total residual is made of random part and competition part ($\ln e$ and $\ln u$ respectively). Over long enough time period $\ln e$ will average to close to zero, while $\ln u$ will average to the competition effect. The CE frontier is then calculated using the following formula:

(3)

$$CE_i = \exp(\ln \bar{u}_i - \ln \bar{u}_{\min}) - 1 = (\bar{u}_i / \bar{u}_{\min}) - 1,$$

Where:

CE - competition efficiency for a bank or a group of banks, \bar{u}_i - averaged residuals across time for a certain bank or a group of banks and \bar{u}_{\min} - the minimum residuals vector. Thus the ratio is an estimate of the ratio of for the bank or a group of banks compared with the bank or bank group facing the greatest competition while having the same underlying cost and service productivity. Since the CE measures competition inefficiency, the value of 0.00 means perfect efficiency of competition and a frontier position of a bank. A CE value of 0.05 means that the competition is 5% less efficient than on the frontier and that the bank has market power 5% higher compared with the bank with least market power.

For the same reasons as with CE, for the individual bank XE we also apply DFA. We follow Berger and Hannan (1998) who measure X-efficiency, or the closeness of the bank costs to the minimum costs for the bank's output that could be achieved on the efficient frontier. Conveniently, for the purpose of testing out the QLH it is exactly the link between efficiency to market power which depends only on relative efficiencies, since competitive pressures are unlikely to force managers to reduce costs below the minimum achieved by their best-practice competitors.⁴²

To estimate efficiency Berger and Hannan (1998) assume that the cost function has a composite error term that includes both inefficiencies (deviations from the efficient frontier) and random error (luck, measurement error). The difficulty in estimating efficiency is in disentangling the two elements. This is exactly where DFA method proves its value. The key assumption of DFA is that cost differences owing to inefficiency are relatively stable and should persist over time, while those owing to random error will average out over time.

For the XE calculation, we use standard trans-log cost function with three inputs (financial capital, labor and physical capital) and three outputs (investments, loans and fees):

(4)

$$\ln TC_{it} = \alpha_i + \sum_m a_m \ln Y_{m,it} + \sum_n b_n \ln W_{n,it} + \frac{1}{2} \sum_m \sum_n a_{mn} \ln Y_{n,it} \ln Y_{m,it} + \frac{1}{2} \sum_m \sum_n b_{mn} \ln W_{n,it} \ln W_{m,it} + \sum_m \sum_n ab_{mn} \ln W_{n,it} \ln Y_{m,it} + \varepsilon_{it}$$

⁴² In other words, we believe that competitive pressures or the lack of it will influence only relative bank efficiency, while it will not influence technological progress or economy of scale which depends on the optimal size of the bank.

Where:

TCit - operational costs of a bank i in the period t, W - input prices, Y - bank outputs and ε - the residual.

For the DFA method, a cost function is modified as:

(5)

$$\ln C_{ij} = \ln_t C(Y_{ij}, w_{ij}) + \ln x_i + \ln v_{it}$$

Where:

C - operating costs, C(Y, w) - cost function with output quantity vector Y and input price vector w as arguments, $\ln x$ - efficiency factor, and $\ln v$ - random error. All the components in equation (5) vary over time except for the efficiency factor $\ln x$, which is assumed to be constant for each bank.

To calculate efficiency, we average the residuals from equation (5) for each bank over the 6 years. This average residual, $\ln \hat{x}_i$ for each bank, is an estimate of $\ln x_i$, given that the random errors $\ln v_{it}$ will tend to cancel each other out for each firm separately in the averaging. We transform $\ln \hat{x}_i$ into a normalized measure of efficiency:

(6)

$$EFF_i = \exp(\ln x_{\min} - \ln \hat{x}_i) - 1 = x_{\min} / \hat{x}_i$$

This is an estimate of the ratio of costs for the most efficient bank in the sample to bank i costs for bank i combination of outputs and input prices. This corresponds with the conventional notion of efficiency as the ratio of the minimum resources needed for production to the resources actually used, and ranges over (0, 1], with higher values indicating greater efficiency.

2.3. Model

Since we used DFA, the time dimension of our model has changed from years to rolling 6-year windows. Therefore we use a rolling estimation of the following equation:

(7)

$$EFF_{ij} = f(MP_{ij}, CO_{ij}) + fe_i + \varepsilon$$

Therefore, we test QLH by modeling the bank cost efficiency on market power and set of control variables with EFF being bank i cost efficiency in year y, MP market power of bank y in year y, measured with CE. CO is the set of control variables for bank i in year y: non-deposit liabilities to total assets, loans to assets, and relative importance of credit risk materialization. It is important to notice that we do not use the input prices or quantities for efficiency modeling since those indicators are used to generate the efficiency series in the first place. We use Hausman test to justify the use of fixed effects.

Since we expect to confirm the QLH, we expect that coefficient of market power is significant and negative. Regarding the control variables, we expect that higher share of non-deposit liabilities leads to lower cost efficiency. This view is consistent with QLH and relates the ability of bank to generate liabilities outside the deposit market (usually via parent bank) which relieves her of the pressure to reduce costs. On the other hand, higher share of loans in the assets stimulates profitability but increases liquidity risk and therefore we believe that it is connected with the increased cost efficiency. Also, compared with other banking outputs (like investments), loans require more physical engagement by banks staff thus creating additional efficiency challenge. Finally, we believe that higher credit risk materialization forces banks to increase cost efficiency and preserve shock-absorbing ability.

3. RESULTS

When commenting on the CE and XE results, caution is required as these indicators are relative in their nature. Therefore, average market power is the power of the certain bank to withstand the competition compared with the weakest bank on the market and efficiency is relative efficiency compared with the least efficient bank on the market. Looking at the distribution of our market power and efficiency measures, it is obvious that firms differ more regarding the market power than regarding the efficiency. To a certain extent, this is expected as it is hard to achieve technological gains on relative conservative Croatian banking sector.

According to our results, bank market power was highest in approximately 2003 and decreased afterwards only to start increasing again during the crisis. Over the whole sample, market power of bigger banks seems to be lower compared with the average bank, however, one has to be aware that bigger banks face the competition from different market players compared with average bank and besides bigger banks are much more alike compared with smaller banks. Also, given the nature of our market power measure, it is possible that the revenue of smaller banks is probably restrained by other factors such as: lower productivity, lower quality of clients and expensive and scarce capital. Our findings are therefore consistent with Baumol et al. (1982) idea that market participants even though on the same market formally, do not have to necessarily be competing on the same market niche.

According to our X-efficiency results, banking Croatian banking sector did record an increase in cost efficiency over the last 18 years. Our average efficiency score of around 75% is comparable with the results that Turk-Arisis (2010) calculated for Croatia. However, two issues arise from the dynamics of our indicator. First of all, our results are contraire to the general impression that banks "increased their efficiency after the financial crisis started". Looking at the average and weighted average scores, larger banks on the market did increase their cost efficiency to some extent after the crisis started, but this trend reversed in the last couple of periods observed. This means that the decrease of the relative importance of banks operational costs against their balance sheet is simply the result of them using cheaper inputs when the crisis started and the fact that because of the consolidation process average bank is gaining more market share which activates the economies of scale.

Second issue arising from our indicator is the fact that during the whole sample, larger banks appear to be less cost efficient compared with smaller banks. However, to comment on that relation, one has to have in mind the specificity of our efficiency measure. XE shows the relative ability of a management to keep the costs, given prices and quantities of inputs, relatively close to the best cost managing bank on the market. So the fact that smaller banks usually pay higher price for input as well as that they benefit less from the economies of scale plays no role with this measure. Higher average XE of smaller banks is simply due to the fact that they think twice before spending money. Of course, one additional factor why bigger banks are (around 5%) less efficient compared with sector, is the QLH.

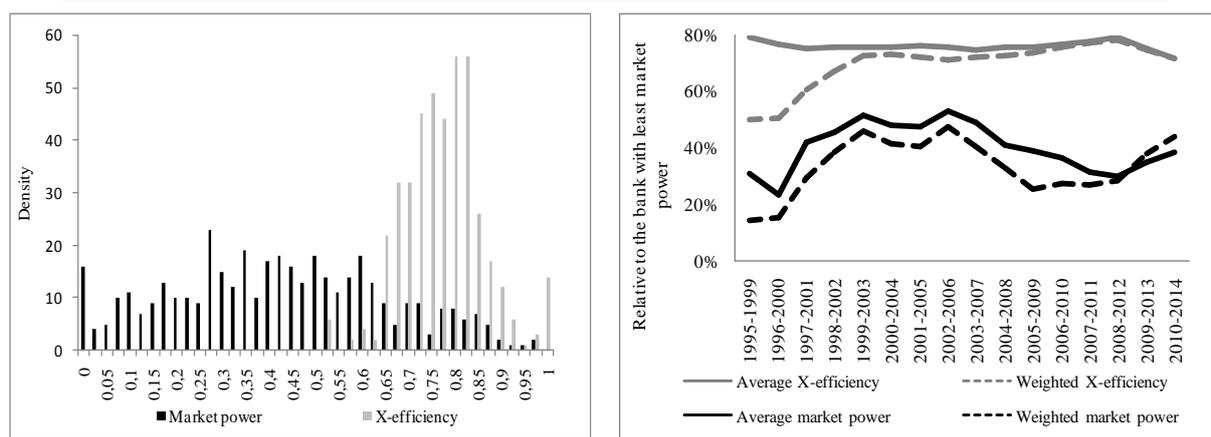


Figure 2: Market power and cost efficiency dynamics and histograms (authors calculation based on CNB data)

After calculating CE and XE measures, we finally test the QLH on Croatian banking sector. After using the Hausman test, we perform the panel data fixed effect regression on equation (7). Our results suggest that QLH holds generally for Croatian banking sector, meaning that the increase in market power is connected with the loss of cost efficiency. In the same time, bank cost efficiency is as expected negatively and significantly connected with higher share of non-deposit liabilities, while regarding the share of loans in the balance sheet, the connection was negative and significant only before the crisis. Unexpectedly, during the crisis higher cost of credit risk is negatively and significantly connected with cost efficiency. Regarding the bank strategic groups⁴³, QLH seems to hold for all banking groups, however, the economical importance of this relationship could be questioned as only around 6% cost efficiency could be gained providing that average bank loses its market power.

Table 1: The QLH test results in various model settings

Variable	General	Before crisis	During crisis	Corporate	Universal	Foreign	Domestic
market power	-0,057 **	-0,012	-0,100 **	-0,089 **	-0,013	-0,044	-0,083 *
log(non_deposit liabilities share)	-0,017 *	0,020 *	-0,012	-0,002	-0,049 ***	-0,035 ***	-0,001
log(loans to assets)	0,008	-0,072 **	0,064	-0,006	0,015	0,007	0,006
log(credit risk)	-0,002	0,001	-0,007 **	-0,005	0,009 *	0,006	-0,010
_cons	0,830 ***	0,815 ***	0,850 ***	0,818 ***	0,724 **	0,734 ***	0,898 ***
N of obs.	289	163	126	140	128	146	127
R-square	0,66	0,81	0,90	0,76	0,60	0,71	0,59

legend: * p<.05; ** p<.01; *** p<.001

4. CONCLUSION

Hicks (1935) concluded that the “best thing about monopoly is a quiet life” implying that the market power exercise should not be looked at only through the prism of price mark-up. Firms can easily use their market power to generate a more comfortable environment for themselves and in the same time remain below the radar of the competitors or regulator, unlike with the

43 Strategic groups are groups of banks sharing similar business orientation. Universal banks engage in retail and corporate deposit-loans activities and most of the residential real estate loans refer to them. Corporate and personal banks are oriented only one segment of the market: corporate and non-housing retail segment.

monopolistic rents. In the case of banking this issue becomes even more important since bank output is used as an input of other economic activities.

Using the data for Croatian banking sector between 1994 and 2014, we provide evidence for the QLH meaning that average bank is using its market power to relax regarding cost efficiency. Therefore, our work paves the way for some policy discussion as well. Most of the CEE and Western Balkans countries have a solid bank competition policy on paper. However, in practice it is rarely an active policy. Usually regulators calculate concentration ratios and Herfindahl Hirschman index only in order to generate a threshold for preventing some merger from taking place that would lead to increased concentration. Our results, also suggest that the standard Dead-weight-loss calculation underestimates the negative effect of bank market power on social welfare.

Most of the work done so far on the social cost of bank market power, concentrated on allocative efficiency loss, easily perceived through dead weight loss triangles (Harberger triangles). However, when accepting the quiet life hypothesis, we actually accept that the social cost of bank market power is higher than the standard dead-weight loss. In standard microeconomic terms, allocative efficiency loss (dead weight triangle) is focused on the raw monopolistic margin (P-MC) without questioning the nature of the marginal cost. When the QLH holds, marginal cost is actually higher than it needs to be, so the P-MC is effectively higher as well. Therefore, we believe that regulators should monitor bank competition levels on more frequent basis and intervene more often in order to steer the market into socially desirable area.

Although this paper moved further from testing the quiet life hypothesis by simply finding the connection between concentration and cost efficiency (by using the real market power indicator), we believe that further technical advances in these researches are needed. In that sense, a special causality test would present a significant contribution in further research of this topic, especially in the light of recent advances in the panel causality techniques. Also, next step in testing the QLH should be the implementation of bank specific Lerner index and its bank-year comparison with CE.

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SYSTEM OF REWARDING AND MOTIVATING THROUGH THE PROCESS OF EVALUATION AND DEVELOPMENT OF EMPLOYEES

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ABSTRACT

Paper is inspired by vague and somewhere confusing bonus payments by MBO system that often led to dissatisfaction of the employees in the UniCredit group, whose group policies in the domain of HR are based on the mentioned concept. In close coleration with the Group's human resources department official data, research has proven that badly designed objectives and following targets for non-sales services where it is easier to set up tasks, led to vague understanding of company's goals and bussiness projections. The paper doesn't only disclose the results of the study based on the relevant data, but also offers guidance on how to overcome specific problems.

In addition, this paper provides a specific matrix that combines the well-known SWOT analysis and the SMART principle (i.e. concept) of determining the objectives, from the perspective of the company as well as from the employee's point of view. Through this complex prism, the applicable example of the functionality of the matrix is given, as an way of increasing the staff efficiency and strengthening the company competencies. Regarding the research results, it is clear that the company and the employees should join forces to access new markets or at least preserve the existing positions.

Keywords: *company, development, employee, evaluation, motivating, rewarding.*

1. INTRODUCTION

The aim of the paper is to point out the importance of system of material reward and motivation strategies and their importance to the organization, its business and performance, on the one hand, and the system of defining the objectives, methods of realization of tasks and overcoming the problems in order to create conditions for reward, on the other hand.

The combined application of the SMART concept of defining the objectives, constant adapting and reviewing contributes to the increase of work satisfaction, productivity, organizational performance and improving the organizational climate. Connection between them and their contribution to the achievement of organizational and individual goals and interests are specially pointed out. In addition, it's noted that the organizations in which the awarding and motivating employees is not given the enough attention are faced with certain difficulties in their business, which eventually leads to the impairment of their performance and competitiveness.

Rewarding and motivating the employees is one of the most important activities in human resources management. First of all, we can say that the effectively placed reward system directly affects the motivation of employees, and therefore the results of the work and realization of the objectives of the organization. Also, properly set goals make it impossible for employees not to be motivated to achieve them and thus obtaining rewards. It can be concluded that it is important to effectively set up a reward system, manage it adequately and set up a system that will be the best way to evaluate the results of the work of all employees in the organization and to motivate them in the best possible way.

2. TERMS OF REWARDING, MOTIVATING, EVALUATION AND DEVELOPMENT OF EMPLOYEES

Rewarding employees is a generic term used to determine the situation where organizations provide stimulus for their employees for the work well done. It can be said that the main objective of rewarding employees is realization of organizational and individual goals. Well placed organizational goals lead to higher work motivation of employees and thus to obtain awards. Also, it can be concluded that rewarding represents a certain type of compensation for the employee for the value that he creates in the labor process and compensation for achieving good operating results. It contributes to the employee development, both in personal and professional sense, his loyalty to the organization and attracting new people in a favorable organizational climate set up by a effective reward system.

Rewarding employees represents various forms of material and non-material stimulations. The material rewards are various tangible rewards and often referred to as financial incentives. For example, the material rewards may be in the form of bonuses, stimulations, "13. wage", various gifts, employee participation in share of profits, etc. Non-material rewards are intangible rewards, non-financial stimulations that can sometimes be of the same significance to the employee as the material stimulations, and in some cases they may be preferred. It can be flexible forms of working hours, employee participation in decision-making, compliments on their work, promotion to a higher position in the organizational hierarchy. In relation to the type of work, rewarding can be divided into rewarding sales personnel, rewarding management and rewarding administration. Another division of rewarding can be carried out in relation to the time period in which the employee pursues the task, and it can be monthly, quarterly, semi-annually, annually, as well as periodic rewarding for the special contributions that employees provide.

Reward system should motivate employees to work in a way that ensures full realization of organizational goals and interests, in addition to personal objectives. It's a function achieved by creating a reward system, which includes wages, salaries, stimulations, benefits and other values that the employer provides to employees in exchange for labor (Jovanović-Božinov, Kulić, Cvetkovski, 2008, p. 258). Achieving the detemined goals is not easy and the path to them is filled with many obstacles and uncertainties, because it depends on the intensity of motivation. It is very important to realistically consider all options in order to make a distinction between desirable and feasible. Unrealistic goals are not possible to achieve even with help of the strongest motives. If the gap between the needs and goals is large and not avoidable, numerous and sometimes very serious misunderstandings and even conflicts may occur (Mihajlović, 1995, pp. 36-39).

Motivating employees represents the introduction of certain incentives, and these are rewards for the most effective workers. Motivation is, therefore, the target directed instinct and as such

it rarely exists without a reason. When we talk about the motives we think of the causes or reasons that underlie the conduct. People usually act or work for one reason: to achieve some goal (Orlić, 2005, pp. 52-53). Motivation of employees is one of the key prerequisites for the business success of the organization. Well-motivated workers carry out the work more effectively, which is essential for the organization, but also for the individual who is entitled to a certain reward for the effort and the results.

Evaluating employees represents evaluation of employee's performance, a process during which the extent to which employees contribute to the achievement of objectives in a given period of time is estimated. Evaluation is an organized and continuous process of monitoring, evaluating, directing and adapting of performance and working behavior of employees, in order to achieve organizational goals (Lojić, Kulić, 2009, pp. 209-211). The implementation of evaluation proceeds from the goals that the employee should achieve. If goals are adequately placed by SMART concept, inasmuch the employees are motivated to achieve them and win prizes. In contrast, if the employee does not understand the goals that are before him, the lack of his motivation will be visibly expressed, and therefore the good work results will be absent. It can be concluded that the objective of the evaluation of employees is to help them achieve better work results, effectively exploit their potential and skills which can serve them as a good reference in career.

3. COMBINED USE OF SWOT ANALYSIS AND THE SMART CONCEPT OF DETERMINING THE OBJECTIVES

Rewarding and motivating employee's strategies are still not fully scientifically clarified, despite numerous studies, which this paper tends to compensate. The system of rewarding and motivating, as seen from the aspect of the organization, can not be created nor ideal for all times and all situations, which is why the answer to the question of fixing the company's efficiency should be found in the process of evaluation and development of employees, but through clearly defined goals in order to help employees improve their performance by fulfilling specific tasks. Measuring labor motivation can be implemented only through the analysis of understanding and identifying the company's goals with individual goals of employees. Taking into account that every company starts from its SWOT analysis, research should start with the employees themselves.

For example, the research conducted in the UniCredit Company, based on the principle of evaluation and development of employees, shows that only the employee who is highly motivated on the basis of personal development and completely familiar with the process of evaluation fits the company development plans. Clearly defined goals are of primary importance for the company's development, as well as for the individual development of employees. In addition, management by objectives is a participatory process of setting individual targets of managers or employees, monitoring their achievement and giving feedback to managers and employees. Each MBO's projected results are:

- Better motivation
- Increased responsibility
- Better understanding of the objectives
- Better communication and trust between the superiors and subordinates
- Objective and realistic goals
- Agreement of personal and organizational goals
- Competence development of employees
- Creating a basis for fair and motivating rewarding

- Better coordination and integration of the organization (Janićijević, 2008, pp. 44-45)

Every SWOT analysis indicates strength, weakness, opportunities and market threats. Starting from this analysis, every company has internal and external, positive and negative aspects that should be recognized, so that positive aspects can be reinforced and negative aspects eliminated or considerably reduced. Development of individual professional goals of the employee through SWOT analysis should highlight his potentials and point out possible flaws which should be improved.

SMART principle or SMART concept originated as an acronym from the ways of defining the objectives: **S**pecific, **M**easurable, **A**chievable, **R**elevant and **T**ime oriented. Based on this principle, it is clear that only a clearly defined goal, which shows specificity, which can be measurable, achievable, realistic and time-definable, can lead to realization. Even in the material rewards system, where employees are highly motivated for achieving the tasks to accomplish a certain type of bonus packages, they were not able to conquer them if the goals were not SMART oriented. This paper is based on research into the causes of insufficient efficiency of employees regardless of the reward system presented as a great stimulator for achieving results.

First of all, objectives have to be **SPECIFIC**, that is all activities should be clearly defined and concretized by the questions, such as: “*I know exactly what I should do!*”, “*Is the income of the objectives clear?*”, “*Will the objectives lead to wanted results?*”, “*What will the strategy will be used in order to accomplish the tasks?*”, etc.

Are the named objectives specific?	Too general	Insufficiently specific	Specific
Wash and clear the car.	x		
Wash and clear the car every week.		x	
Wash and clear the car inside and out every week.			x
Gain better results on the market.	x		
Gain at least 15% better results in every work field until the end of June.			x

Table no. 1: Specific objective, Authors' research

Vaguely defined objectives:

- Provide new corporate clients from the real estate insurance market through creation of new business contacts (networking) and marketing activities;
- Monitor cost reports and take care that the administrative assistant updates costs.
Prepare reports regularly;
- Maintain business relationships with clients.

Clearly defined objectives:

- Provide new clients in the amount of 2 million euros from the real estate insurance market by the end of the fiscal year through creation of new business contacts (minimum 10 per month);

- Monitor cost reports on a monthly basis in relation to the expenditure, revenue, costs, charges and deviations, both positive and negative. Ensure that the administrative assistant updates costs on a weekly basis. Compile a report of cost differences, if necessary, and send to one's superior on last Friday of the month;
- Develop a plan for contacting at least 20 clients a week. Keep updated records of initiated sales contacts with obligatory indication of the date, content and conclusions of contact and proposal of further activities. Contact all new customers within one month after the takeover of products or services of the Bank, in order to verify the satisfaction of using new products or services and give useful advice. Report monthly about conducted activities.

Objectives have to be **MEASURABLE**, according to the principle: *I know exactly when I achieved the goal/result - quality, quantity, time, costs...* Employees are often not even aware of the moment of reaching the target and thus possibilities for further stimulating activities. The ratio which can demonstrate the relation between quality, consumption and contributions that goal can accomplish, should indicate that even the administrative services which are not always aware of the clearly defined goals can be set to realize benefits from their own activities.

For example, legal services in the field of customer complaints does not recognize its contribution to the company, because its job is set to (dis)satisfaction of already existing users, whose objections they may disregard under the auspices of signed contracts and commit inadequate to their complaints. On the other hand, if we set a measurable goal - that a satisfied customer means a recommendation, regularly paying to the customer, who is directly reflected in the company's income statement in the *new business* position and in the *unimpaired solvency cash flow*, we realize that sales department is not the only one that can have a measurable set goal.

Also, objectives have to be **ACHIEVABLE**: *"I know I can achieve the goal, the goal is my challenge"*, *"I can predict what kind of difficulties I will encounter in achieving the objectives"*, *"Are we able to get the job done in the given directions?"*, etc. Achievable goal gives a clear picture to the employee about the real possibilities and procedures of his achievements. In this regard, the company should define what exactly is expected from the employee and which path is the right one to achieve the goal, so that employee could understand that the goal is achievable, and in order to adapt to it most effectively. It would be desirable to examine procedures for achieving the objective and give the instructions to focus on the true results.

Are the named objectives measurable?	Yes	No
Improve the quality of service to all clients of our office.		x
Answer to every letter in next 5 days.	x	
Decrease the number of complaints by 50%.	x	
Decrease the number of complaints significantly.		x
Hire only very productive staff.		x

Table no. 2: Measurable objective, Authors' research

For example, if an employee in financial department is tasked to reduce the discrepancy between assets and liabilities in the currency position, for him this is a stimulating task that could justify his future career advancement, but superiors should still direct him and show him the adequate guidelines pursuant to the goal.

Furthermore, goals should be **RELEVANT**, in accordance with the following statements and questions: “*I know and I feel that what I do has value and importance!*”, “*Does the organization have the reliable financial and human resources to finalize the given objectives?*”, “*Did we set the priorities right, if they were even necessary?*” etc. The feeling of importance, belonging and contribution to corporate objectives imposes that the employee is the most important resource which should be developed together with company. Therefore, the employee’s priorities must be in accordance with the priorities of the company.

For example, on the exhibition event, all company employees must be focused on quick reaction to market flows and insight into ad hoc priority. None of the employees should be neither distracted nor with low attention.

Do the following expressions define the objective deadline well?	Yes	No
Next week.		x
Next Wednesday night, after 20h.	x	
As soon as possible.		x
Today, before the lunch hour.	x	
Today, somewhere around lunch hour.		x
12/31/2015	x	

Table no. 3: Time oriented objectives, Authors’ research

Finally, all objectives are supposed to be **TIME ORIENTED**: “*I know that everything must be completed within a clearly defined time period*”, “*What’s the deadline of the activities that are about to be taken?*”... Corporate deadlines setting is not fully in line with clearly defined time-specific goals, because the terms are too general and without a good stages set. So, employees have to be aware of the time needed to react in case of potential errors. He should also bear in mind the real time required for execution of the assignment.

For example, if a goal that employee should complete his annual report on operations is set, it would be desirable to determine the phases of implementation in order to highlight the work process and make corrections possible.

4. SWOT AND SMART MATRIX COMBINATION

Setting up the matrix of the SWOT analysis in combination with the SMART principle of defining individual and company goals, we enable the ideal concept come to life.

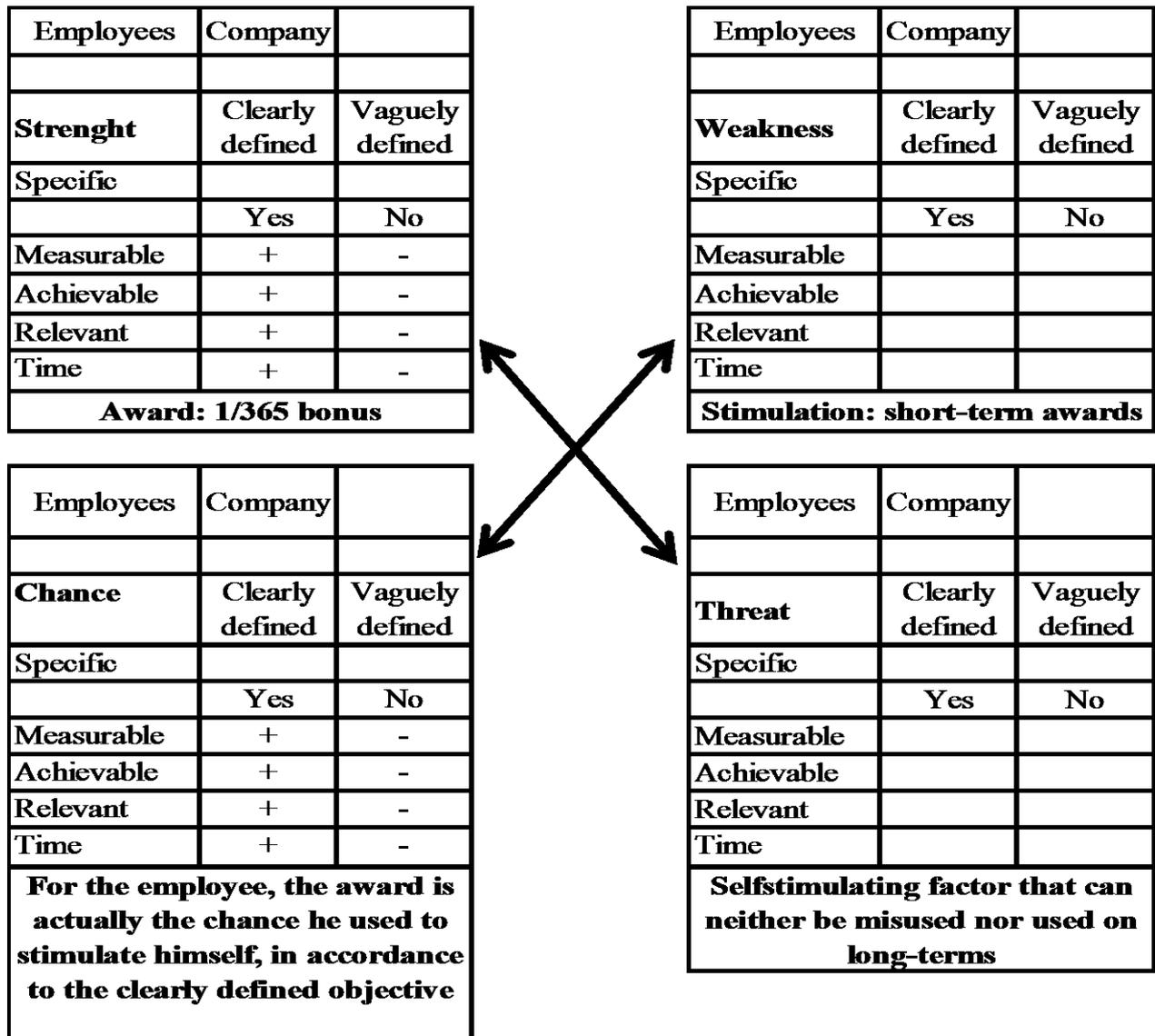


Table no. 4: SWOT and SMART matrix combination, Authors' research

In the case of the research conducted at UniCredit Company, an overview, analysis and explanation of concrete results in practice are given. The company uses a MBO system - Management by Objectives. However, regarding the high cost of the process and its rather small benefit in relation to the effort, it does not give adequate results. Consequently, the barriers that arise are: *objective* (organizational - unclear organizational position and job description, number of employees and managers and the impossibility of quantifying) and *subjective* (leadership attitude, manager incompetence, employee incompetence and cultural barriers). Elements of the process of MBO are:

- Personal objectives arise from organizational objectives and areas of responsibility of the manager or employee;
- Manager or employee discusses and identifies objectives and set targets with his superior;
- Focus is on the objectives that should be achieved rather than on the activities to be carried out.

Despite partially paid bonuses, the company nor the employees were not satisfied with the system in the previous few years. According to research, the conclusion is that the company sets very general objectives, hard to measure for individual services, the employees were frightened, little incentive to engage in unsafe adventure in revealing what is actually their task supposed to be, because all eyes were on them by the principle; *That's your goal, achieve it.*

According to the analyzed results, the old principle of SWOT analysis was necessary, which is unprecedented in revealing the strengths and weaknesses of the analyzed subject. SWOT analysis should include the company and the employees, confronting the real strengths and weaknesses of both. However, in process of revealing the opportunities and threats, it is necessary to plan and aim to increase the positive and minimize the negative side of the analysis. In order to do that, it is necessary to quantify the target, define it and set it up in the framework of time and achievable limits. Therefore, SMART principle objective analysis is also needed.

The combination of SMART and SWOT gives a unique matrix that company can use in order to limit its weakness and strengthen its power, with the final goal of increasing the company's efficiency, achieving the set objectives and thus conquering the reward(ing) system through which the employee develops.

An example of a matrix UniCredit company uses, based on research that can be used in everyday praxis, is given on the following table:

Employee	Company	
Good and precise accountant	Competent and "hard to imitate" company	
Strenght	Clearly defined	Vaguely defined
Specific	Find negative causes that effects ratio of solvency and eliminate them so they couldn't affect current solvency on dayly basis	Secure solvency
	Yes	No
Measurable	+	-
Achievable	+	-
Relevant	+	-
Time oriented	+	-
Award: 1/365 bonus		
Employee	Company	
Carrier advancement, higher wages	Improving bussiness performances	
Chance	Clearly defined	Vaguely defined
Specific	Possibility of placement of new marginal product made of crushed vehicle wich could enable marginal income in a trimester	Possibility of placement of new product
	Yes	No
Measurable	+	-
Achievable	+	-
Relevant	+	-
Time oriented	+	-
For the employee, the award is actually the chance he used to stimulate himself, in accordance to the clearly defined objective		

Employee	Company	
Unmotivated	Slow reaction on market changes	
Weakness	Clearly defined	Vaguely defined
Specific	Take care that accountant updates operational bussiness costs on weekly basis	Expect costs reports
	Yes	No
Measurable	Point out the costs decrease effects on bussiness results	Decrease costs, by every chance
Achievable	Update priorities	Data input
Relevant	Follow priorities	Optional ad hoc reports
Time oriented	Dayly updating and control of general ledger until 14h	Dayly crediting
Stimulation: short-term awards		
Employee	Company	
Losing job, wage decrease, economic crisis	Strengthening of competition with effect on market share decrease	
Threat	Clearly defined	Vaguely defined
Specific	Monitor costs report on monthly basis, with accent on expences, incomes, costs, payments, deviatons, both positive and negative	Monitor and write costs reports and take care that administrative assistant updates costs
	Yes	No
Measurable	Ratio between incomes and expences in deviations, report and suggest action plan measures	Monitor incomes and expences
Achievable	Point out concrete expences that affect increase of loss through general ledger	Find solution for the problem
Relevant	Loss decrease problem affects bussiness results and dividends share	Management discontent
Time oriented	Send last year financial report on review until the end of February	Finish as soon as possible
Selfstimulating factor that can neither be misused nor used on long-terms		

Table no. 5: SWOT and SMART matrix combination used in UniCredit, Authors' research

5. CONCLUSION

Perceiving the strength of the employee in correlation with the strength of the company, and through the prism of SMART objectives, it can be concluded that a clearly defined goal must contain positive answers to all SMART categories. With a special support from the company, employee can use his strength and needed qualifications in order to cope with the specified tasks and objectives. In this way, a superior does not have to lose their time in helping employees in solving their problems. It is necessary to set up a system of adequate rewarding. In this part of the matrix, the reward should be of greater value, but not very frequent, perhaps at an interval of not less than one year.

For example, UniCredit Company uses a system of awarding bonuses, purchase of official vehicles made available to the employee for personal purposes also, training, education, continuing education, etc. Generally, everything that raises employee satisfaction reflects his results and thus indirectly strengthens the company's position in the market through better competence.

Opposite to this, the *weakness* category illustrates how a company can be vulnerable and extra sensitive when an employee has a similar "structure". In fact, there is no company nor employee without certain weaknesses, but their strengths and weaknesses should be mutually compensated. On the other hand, if the weaknesses match, the company will have special difficulties in overcoming them. In the example provided by the matrix, if the worker is insufficiently motivated, and at the same time the company's weakness is slow response and insufficient flexibility to market changes, the problem is doubled, which may jeopardize the effectiveness of the company and its market share.

The matrix can be used to observe and efficiently find the problem and, at the same time, to offer the obvious solution. The company should always select employees who compensate its weaknesses and eventually eliminate them. If a clearly defined objective is set, the matrix will offer the SMART concept. In this way, the employee will be presented with his task and SMART structure will simplify the task, so that the worker takes it as a challenge with simplified solution.

Regarding the opportunities and threats, the company and the employees should perform as a team and thus join forces to access new markets or strengthen and preserve the existing positions. What does that actually mean? If there are new inputs to the market which the company and the employees recognize as an opportunity, the company can offer a challenge to the employee through the system of motivation and rewarding. Ambitious worker uses these capabilities on both a personal and professional (corporate) benefit. This way the strong connection and loyalty arise between employee(s) and the company. Both company's support to the employee and his increased level of independence are necessary.

Analogously, threats make the company and the employees to cooperate more thoroughly. Employees have less independence and a detailed work plan and program with clarifying objectives and list of instruments and procedures to facilitate overcoming obstacles. In this case, the company and the employees can "be on thin ice" if they don't cooperate and solve problems. There is also a technical possibility that the company may leave the employee "without protection" in a certain short period of time, because the employee becomes a victim of a company's "fear" of the economic crisis. Employees are in a position to fight the problems and threats and thus be more efficient. Certainly, company shouldn't use this

situation, because it undermines the loyalty of an employee, who will leave at the first opportunity. Therefore, it is necessary to set specific objectives, that are measurable, achievable, realistic and relevant and well timed, in order to accomplish common goals.

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