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Zrenjanin, Republic of Serbia**

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COMPETITIVENESS
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INTRODUCTION

Department of Management and Technical faculty “Mihajlo Pupin” from Zrenjanin have started the organization of International Symposium Engineering Management and Competitiveness (EMC) in 2011. Since 2013 the organization EMC symposium has been supported by the following foreign partners: Szent István University, Faculty of Economics and Social Sciences, Gödöllő, Hungary and Voronezh State University, Faculty of Economics, Voronezh, Russia.

The objectives of the Symposium EMC are: presentation of current knowledge and the exchange of experiences from the field of Engineering management, consideration of development tendencies and trends in Serbia and the world as well, gathering researchers from this field with the aim of expanding regional and international cooperation, raising the level of professional and scientific work at Technical faculty “Mihajlo Pupin” from Zrenjanin, expanding cooperation with economic and educational institutions and encouraging young researchers within this field. Taking into account that this Symposium is international, the importance of this event is obvious for the town of Zrenjanin, Banat region, Vojvodina and Serbia. Organization of EMC by Technical faculty “Mihajlo Pupin” from Zrenjanin represents this scientific-educational institution as one of the major representatives of economic and social development in Banat.

Within this Proceedings are presented all accepted papers received for IV International Symposium Engineering Management and Competitiveness (EMC 2014). The papers are divided into eight sessions: Plenary session, Session A: Management, Session B: Operation management, Session C: Human resource management, Session D: Marketing and marketing management, Session E: Economy, Session F: IT management, Session G: Environmental and safety management systems.

We wish to thank Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina, Republic of Serbia for supporting the organization of IV International Symposium Engineering Management and Competitiveness (EMC 2014) as well as to Technical faculty “Mihajlo Pupin” from Zrenjanin and the dean Prof. Ph.D Milan Pavlović for their active role concerning the organization of the Symposium. We are also expressing our gratitude to all authors who have contributed with their papers to the organization of our fourth Symposium EMC.

Symposium EMC become a traditional meeting of researchers in June, every year. We are open and thankful for all useful suggestions which could contribute that the next, V International Symposium Engineering Management and Competitiveness (EMC 2015) become better in organizational and program sense.

President of the Programming Committee
Professor Milan Nikolić, Ph.D.

Zrenjanin, June 2014.

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PRODUCTION CYCLE TIME AND MODIFIED WORK SAMPLING METHOD

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ABSTRACT

The experimental investigations which involved a large number of Serbian enterprises with a higher organizational level and longer production times t_p in a production cycle t_{pc} have shown that the production process is mastered. This has been proved by the methods of stochastic control using the control limits, because production time is found most frequently within the control limits with an error of $\pm 3SD$. On the other side, the most relevant factor which affects the production cycle time per unit – t_{pcu} – is the size of a series. The function has the form $t_{pcu} = c + b/\text{unit}_{ser}$, where a and b are the constants. It has also been shown that the grouping of cycles by stratification according to the number of units in a series does not give any particular features to those groups, for $SD < SD_{strat}$ i.e. the standard deviations for production time trends are lower than the stratified standard deviations.

Key words: production cycle, elements of production cycle time, work sampling, stochastic model

INTRODUCTION

Production cycle (PC) time can be determined in advance for machines, mechanization means and manual work. In practice they are not deterministic but stochastic, especially under conditions of small and medium-sized businesses and as such they have to be monitored.

The elements of PC time are possible to monitor using the work sampling method which was first applied by Tippett (Barnes 1957, Maynard 1980, Moder 1980, Richardson 1982). However, the original method has a restricted realm of use, and only three elements of PC time were monitored: the machine is in operation, the machine is in preparation, or the machine is idle (+, x, -).

Although a technical-technological indicator of machine utilization level, i.e., the time of operation against machine total available time, is a very significant indicator in production and business operations and the stochastic model application itself very simple, it is more important to obtain those levels for the elements of PC time. The PC time involves the time needed to make a unit or a series of units from putting them into production until their storage, and aside from being significant as a technical indicator, it is also important as an economic indicator of freezing current assets, especially raw materials. There can hardly be any enterprise that does not monitor PC time through documentation and analytically, but rarely do they monitor the elements of work within the PC and by analyzing those elements affect their reduction and thereby PC time reduction.

This is the reason why in this paper we prove experimentally the applicability of the original stochastic method to determine the elements of PC time using the results obtained by screening two plants with small scale production as an example.

PRODUCTION CYCLE (PC) TIME

In theory, the PC time – t_{pc} – is divided into production time – t_p – and non-production time – t_{np} – and production time is then further divided into technological time – t_t –, with machine t_{tm} and lead time t_{pt} , non-technological time – t_{nt} – with time of control – t_c –, transportation – t_r – and packaging – t_{pk} –. Non-production time is classified according to various causes of stoppages in production, and we have carried out a screening of the most general and common ones caused by the lack of raw materials – t_{mr} –, organization – t_o –, machine breakdown – t_b – and other problems – t_{ot} – (Čala et al, 2011.). The representativeness of a screening sample per number and time of screening was established by mathematical parameters, SD and control limits, where the elements of PC time are observed as the elements of the process function. The organization of a sequence of operations, and in this regard the determination of machine time – t_{tm} –, has the greatest impact on production time as the most important PC time in small scale and serial production.

The organization of a sequence of operations can be consecutive, parallel and combined. In a consecutive type of operations sequence, production proceeds in such a way that the entire series of units waits for all the units of a series to be completed on one machine, and only afterward to be removed all together onto another machine (operation).

In consecutive type of sequence of operations, the total time necessary for a series' production, i.e. production cycle length is:

$$t_{cu} = n \sum_{i=1}^k t_{oi}$$

where:

- n - the number of items for production in a series,
- k - number of operations for producing an item,
- t_{oi} - time of individual operations' duration.

For organization of operations sequence for the parallel type, time of making the series is obtained based on:

$$t_{op} = (n - 1)t_{omax} + \sum_{i=1}^k t_{oi}$$

It is obvious that for the identical time duration of technological machine time observed for the machine operating mode, for three operations for a series of three units, the PC time is much longer in the consecutive type of operations sequence. In effect, the PCs represent only machine time that involves the waiting time for the operation beforehand and the worker's manual work time related to a single unit. Therefore, technological machine time should be distinguished when the machine capacity is analyzed (Klarin, 2000.) and when the PC time is analyzed and monitored. This refers particularly to serial production, when the work sampling method is applied and, in general, work study is performed.

A special contribution here was made by L. H. C. Tippett (1902-1985) who first applied his method of work sampling in the textile industry (Barnes 1957). Nevertheless, the classical work sampling method established by Tippett is not appropriate for contemporary production systems, because in his research the main stoppage was due to poor material quality. Despite its shortcomings, this method is still used in production practice and is found in all industrial engineering text-books (Richardson, 1982). The indispensable modification of the method presented in (Klarin, 2000.) aims

to explain and justify both the necessity and importance of using the shift level of the utilization of capacity as the stochastic variable in determining the total level of capacity utilization in the production process by using the method of work sampling on a sample comprising 74 Serbian companies. The conclusion drawn is that the shift level of capacity utilization as the stochastic variable in work sampling is the model which solves the problem of determining the total level of capacity utilization in a convenient way and with accurate results. On the other hand, on the basis of (Klarin 2000),(Elnekave & Gilad 2006) propose a digital video-based approach to enhance work measurement and analysis by facilitating the generation of rapid time standards, which serves as a computerized tool for remote work measurement with the ability to derive the rapid generation of time standards.

MODIFIED WORK SAMPLING METHOD

Operational planning and monitoring is a complex system whose task is to the fastest possible way and with less funds accomplishes the market demands, all by eliminating the occurred problems. Undoubtedly, this is achieved by better utilization of the capacities and by removing the standstills but certainly by production effected with less transport and quality control, production that shall be executed in parallel with other activities. Shigeo Shingo, the President of the Japanese Association for Control (1986) calls such production "Just in time". Such production is without storage's and unnecessary transport, but it requires strict discipline and that all items are from own manufacture and suppliers reach exactly on time on the right place for processing or erection.

The multidimensional model enables connection of operation time elements per different machines, products an, operators, which cannot be identified from the conventional Gantt's charts, being in one plane. The connection i obtained from geometrical projection in the section of two planes and so effects and techniques of critical path method with respect to presentation of structural connection between individual operations (operation time elements) are obtained. The sequence of operations and time elements is dictated by the process-operation list.

On the other hand, the production cycle depends, as well as the degree of capacity utilization, from the organizational sequence of operations, as it is not unimportant if we have parallel type of operations or consecutive, and being limited at the same time by the production range: individual, series or mass. The last influences also indirectly the duration of production cycle by its impacts on the sequence of production organization. So shipbuilding blocks immense funds during longer period of time, while production is individual or in small series.

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There are different definitions of start and end of production cycle in the literature, which depends in the first place of the task. In the event we observe only the production start, it could be defined by launching, and the cycle continues per phases, by requests, distribution, preparation of machine and tools, standstills in all phases from the start of the process itself, defined as ttm- process machine time. The end of the production cycle can be defined as end of the operation, waiting for transport, or control, transport, control, packing time and storage.

The application of the modified work sampling method in the processing industry indicates that the methods of monitoring capacity utilization applied in the processing industry such as cement production may also be used in the metalworking industry which has a high level of capacity utilization. Hence, the results of the analysis indicate that when the level of capacity utilization is

high, this variable may be observed per day as stochastic, while, per machine, it may be a random variable (Klarin 2010). It is evident that today the more significant problem of monitoring and influencing the production cycle (the period from the item's entry into the production process to the receipt of a finished product and its packing) is by far less present in the literature.

In (Niebel 1980) an experimental example illustrates the determination of the elements of production cycle time, showing that production cycle C is divided into only three elements of cycle time, $C = T_1 + T_2 + T_3$

T_1 = running time to produce one unit of output,

T_2 = normal time to service a stopped machine,

T_3 = time lost by normal operator working because of machine interference.

Paper presents an approach to improve MRP-based production planning by means of targeting minimal product cycle times. A number of works consider the impact of machine breakdown on production cycle time, while Barbiroli & Raggi 2003 studied technical and economic performance related to innovations in the production cycle environment. An inventory model is linked with production cycle optimization in (Kun-Jen Chung 2009), whereas paper (Kodek 2004) gives an optimal algorithm for minimizing production cycle time for assembly lines, using linear mathematical programming which requires extensive calculations.

In the former Yugoslavia, in the period from 1970-1975, when industrial production reached the highest development level, investigations focused on the coefficient of running time (Vila 1972, Kravel 1991) and its functional relationship to series size. The coefficient of running time is defined as the ratio of the actual PC time T_s to the time calculated by an engineering technologist T_{teh} . The coefficient of running time – K_f as a function of the series size is given by the formula $K_f = a + b/T_{teh}$, where a and b are the constants. Our investigations have demonstrated the level of difference between deterministic engineering calculations and the actual ones that are of stochastic character.

The practical application of establishing the mentioned elements of PC time is reduced to instantaneous observations of time elements, where the object of labor moves through the production operations list. A series of units is distinctly marked by this document and an analyst (recorder) can readily identify it.

Screening is conducted according to randomly chosen times that are entered on a screening sheet. The screening sheet is related to one PC, and the number of individual elements of work; i.e. frequencies, are entered on it. The organization of the operations sequence in both enterprises where screenings were performed was of the consecutive type. The model was applied in 2011 - 2014 and involved a larger number of Serbian enterprises.

CONCLUSION

Proposed model for production scheduling and monitoring starts from the standpoint that the company is a multidimensional system and that its elements are connected by stochastic links, so that all relevant elements are considered. Indeed, the efficiency and effectiveness of the production process in a company, as a subject to considerable number of factors, their balance and way they operate together, requires the model which shall offer more connections to be previously planned. The multidimensional model enables connection of operation time elements per different machines, products and operators, which cannot be identified from the conventional Gantt's charts, being in one plane. Multidimensional model for production scheduling and monitoring is tool for effective production planning. The PC is the most significant technical-technological indicator in production and it is necessary to steadily monitor and reduce it; instead of a demanding continuous screening and monitoring of working time elements in an analytical manner, monitoring is much simpler to

perform by means of the original stochastic modified work sampling model; PC reduction is possible by influencing the factors related to the duration of individual working time elements. Time elements trends can be mathematically monitored by establishing the control limits with $\pm SD$ from the mean value. The PC mean value for the groups formed according to the number of units in a series (t_{pcu}) moves along the hyperbolic function which has asymptote c , $\bar{t}_{pcu} = c + b/n$, and, mathematically, these groups do not behave as strata, which means they are not linked to deterministic factors of technology and number of units/series. The process is mastered to a higher degree when all levels of working time elements are utilized to a higher degree (or %) and production time (t_p) is the most important for the process. This means that it is more favorable to apply higher organizational and production levels in the stochastic model for establishing the elements of PC time. In experiments to follow optimization is needed for the number of working time elements and stoppages depending on the type of production.

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HR TENDENCIES AT SUBSIDIARIES OF MULTINATIONAL COMPANIES IN CENTRAL-EASTERN EUROPE

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ABSTRACT

Multinational companies (MNCs) are increasingly present in the Central-Eastern European region (CEE). In their local subsidiaries they have implemented new HR practices and policies. These practices evolved as the economic growth and recession phases took place, as well as in parallel with the world-wide HR trends. The research of the Central and Eastern European International Research Team (CEEIRT) carried out its latest survey in 2012-2013 to take a snapshot of the region's HR trends. In our study we investigated the how the role of HR evolved at the CEE subsidiaries of MNCs.

Key words: HR practices, multinational companies, Central-Eastern Europe,

INTRODUCTION

In Hungary and in Eastern Europe subsidiaries of international companies were established in large number since 1988. Initially the foreign investors were looking for co-operation partners in production. These companies became the engine of the foreign direct investment (FDI) and their position and role has changed considerably in the past 25 years. This situation requires a better understanding of how people are managed and developed by the international companies across the region. In our research project we examined the HR functions and practices of the subsidiaries of the multinational companies (MNCs). The project is part of a long term research co-operation Central and Eastern European International Research Team (CEEIRT) which includes researchers from universities across Central-Eastern Europe (CEE). The aim of the project is to examine the changes of HR practices and the role of the HR function at the subsidiaries of MNCs in the region and their connection to the social and economic changes of the respective countries.

GLOBAL AND REGIONAL TRENDS IN FDI

FDI was steadily growing until the end of the 90's. Based on data of the 2010 report of UNCTAD the tendency has turned around between 2000 and 2003, and then growing again between 2004 and 2007, until it fell back in 2008 due to the economic crisis (UNCTAD,2010). After the crisis in 2010 the FDI showed some increase but halted again in 2011 and declined further in 2012. This decline shows inverse trends to other macroeconomic indicators such as GDP, foreign trade balance or employment rates, which started to rise globally (UNCTAD, 2013). According to the UNCTAD forecast the FDI will remain at close to the 2012 level. Issues such as the structural weaknesses of the financial system, political instability or unfavorable macroeconomic environment could result further decline in investor confidence and as a consequence, further decline in FDI (UNCTAD, 2013).

Whilst previously the most developed countries had a large share of the FDI, recently the trend has changed and the emerging and developing economies have 50% share of the total FDI (UNCTAD 2010). FDI in CEE reached 74.5 billion USD in 2012 (UNCTAD 2013). The subsidiaries of the MNCs also contributed to the employment of the country, in Hungary they accounted for 22.4% of the employment at the beginning of the millennium. (UNCTAD, 2008).

Researchers emphasized that the inflow of FDI could lead to increasing differences in employment and wages (Golejewska, 2002; Jenkins, 2009; Falusné, 2000 ésFazekas, 2003), and this could cause social and economic polarization. It could also lead to demands for wage increase in the public sector, e.g. in Hungary in 2000–2001 and 2002–2003 (Kuti, 2007).Antalóczy and Sass (2005) found significant correlation between employment, average wages and the size of the foreign capital.

THE RESEARCH MODEL

The project, which had established a basis for a longer term research (Poór et al., 2012 and Poór-Farkas, 2012) and its most recent part of the project (2011-2013) is a descriptive study based on objective data. The data collection was made through both face-to-face interviews and online completion of the same questionnaire, which was based on the model shown on Figure 1, and the number of valid responses by participating country is shown in Table 1.

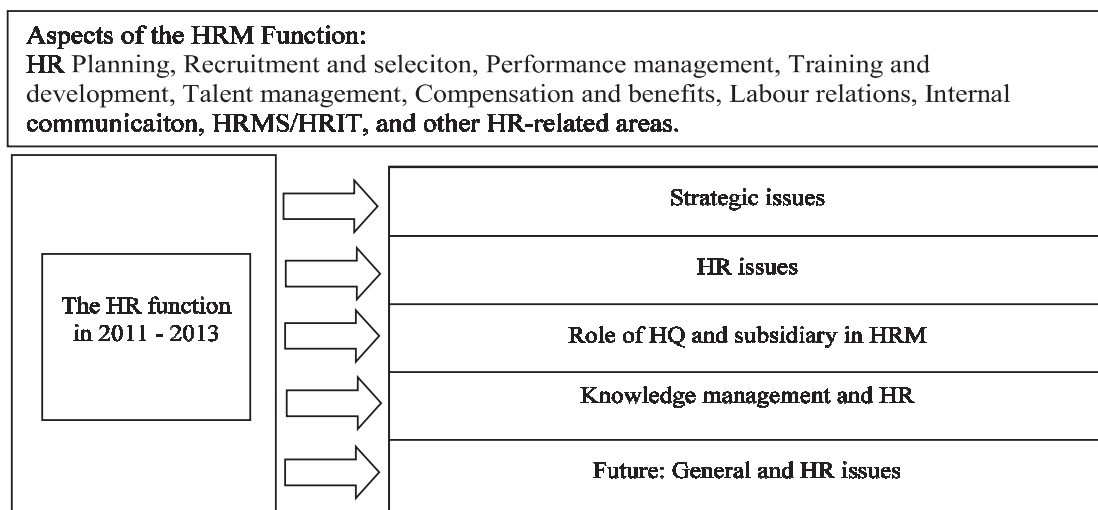


Figure 1: Research model of the CEEIRT data collection
Source: Authors' own compilation

Table 1: Number of valid responses by participating countries in the two CEEIRT research phases (2008-2009 and 2011-2013)

Country	Number of valid responses	
	2008-2009	2011-2013
Estonia	45	0
Croatia	11	0
Poland	88	53
Hungary	75	118
Romania	17	34
Serbia	20	19
Slovakia	23	30
Total	279	254

Source: Authors' own compilation

RESEARCH PARTICIPANTS

We analyzed the data of 5 countries where 254 foreign owned subsidiaries took part in the research, employing total 245 thousand people. 48% of the respondents had more than 250 employees.

We also asked how wide portion of the value chain they have control of, in other words, what is the „mandate” of the organization (Delany 1998 and White-Poynter (1984). 74.2% of the respondents have a typical subsidiary role, such as purchasing, production/operation and sales/distribution.

The origin of the 254 subsidiaries were in 34 countries, 67% of them has their mother company in Germany (23.8%), USA (18.9%), France (9.4%), Austria (6.7%) or Switzerland 4.3%). Among the respondents 6.3% is headquartered in emerging or transitional countries.

The management culture in the majority of the participating firms is German (44.9%) and Anglo-Saxon (23.2%). 14.2% of the sample was Latin / South European, 7.1% Nordic, 6.3% Central-Eastern European, and 3.9% Asian.

51% of the respondents was established via a green-field project and 49% through acquisition. 45.7% carries out traditional production, 16.5% are in trading and 35.4% provides services. The main strategic orientation is growth / market expansion for the majority of the respondents (59.1%), while the priority for 36.9% is to maintain stability. Only 3.2% of the respondents indicated reduction of capacities, which is an improvement compared to the 2008-2009 survey, when 23.2% considered reduction in force and rationalization of capacity (Poór, 2013).

KEY INDICATORS OF HR ACTIVITY

Size of HR departments: The average headcount serviced by 1 HR employee is 69 across the responding 254 companies in 2011. We have experienced earlier that the average headcount/HR staff ratio is declining. Some sources explain this with the increasing importance of the HR function (Balázs–Veress, 2009 and Pudlowski 2009).

The average size of the HR department is 15. However this includes 45.1% of respondents having only 1-4 people in HR, 18.9% has 5-10 HR staff, and 14.4% has 10-20 HR people, while 14.3 % operates an HR department larger than 20 people.

In some cases there is no dedicated HR leader in the organization. In these cases the management or HR issues are performed by the head of the organization or the CFO.

Training and Development spend: The average annual training and development spend as the percentage of the annual labor costs is less than 1% at 26.0% of the respondents, between 1 and 3% at 42.4% and 31.6% spends more than 3% of the labor costs on training and development programs.

Relationship of the local and central HR organization: There are various models to share accountabilities between the corporate center and local HR. Majority of the respondents (47.5%) indicated that the central HR function issues general guidelines and frameworks and subsidiary HR staff implement their practices within these. 32.6% of the respondents have detailed HR model and policies issued by the center, and 19.8% told that the center gives them full authority and performs some audit and expects regular reports.

This survey underpins the findings in other researches regarding the share of **HR accountabilities** locally between line management and HR. According to Cranet, 2006, 2011 and Karoliny et al.

2009 and 2010 some HR decisions are typically line management accountability, and other are more influenced by the local HR staff (Table 2).

Table 2: Share of HR accountabilities

HR activity	Local line management	Local line management with local HR consultation	Local HR with local line management consultation	Local HR
HR Planning	29,8%	39,9%	25,4%	4,8%
Recruitment	16,9%	25,7%	35,3%	22,1%
Selection	23,8%	30,6%	34,7%	10,9%
Performance Management	49,6%	27,4%	17,3%	5,6%
Training and Development	27,3%	30,1%	29,7%	12,9%
Talent Management	26,1%	26,6%	34,0%	13,3%
Compensation and incentives	35,9%	33,9%	20,4%	9,8%
Labor relations	25,6%	23,2%	26,0%	25,2%
Internal communication	28,5%	23,2%	29,7%	18,7%
HRIS	21,4%	21,0%	26,5%	31,1%
Health & Safety	23,4%	17,2%	27,9%	31,6%
Other	45,0%	20,0%	15,0%	20,0%

Source: Authors' own compilation

Changes in the HR operating model: In this section we analyzed the direction of the most changes in the HR operating model. According to 18.3% of the respondents more HR related tasks are now carried out by line management. At 23.6% the HR business partner role has been introduced and it became stronger at 35%. Outsourcing of the HR activities is most typical in the area of HRIS, training and recruitment, and the least outsourced HR activities are HR planning, labor relations and performance management.

Changes in the importance of the HR activities: The most critical HR areas are the labor relations, performance management, internal communication and the talent management. HR planning and compensation and benefits are also considered important areas.

HR issues in the country: it is considered moderately difficult to find blue collar or technical staff by the respondents in each participating countries. One third of the respondents found difficult to find people with the necessary foreign language skills. Talent management appeared to be more critical in Poland. The influence of the unions was seen as the least of the problem (Cranet, 2006 és 2011).

International assignees: Among the total 247 000 employees at the 254 respondents, 1000 expatriates are employed which is 0.4%. They are typically in management positions. At 60% of the respondents there were no expatriates at all at the time of the research. The number of local employees on international assignment is 800, and they spread across 27% of the responding subsidiaries. Only 33% of them worked in a managerial position.

Most important HR competencies: The most important HR competencies are the following: personal credibility (89.3%), foreign language skills (76.7%), expertise in HR processes, such as recruitment, development, performance management, etc. (73.8%), business knowledge (79.6%). Among the least important competencies we found the strategic contribution (69.1% and usage of HRIS (56.8%).

Knowledge Management in HR: In terms of developing personal competencies of the HR staff, the most important channels are the local training and development, and learning at the mother company's headquarter. The extent of knowledge transfer is similar inside the subsidiary HR

department, between local HR and other local business units, and between the subsidiary and the headquarter HR.

SUMMARY

We carried out our empirical survey the second time within the Central and Eastern European region. In this study we presented the frequencies of the answers from the most important aspects of the survey. The results suggest that the companies adopt their HR model according to the external environment and internal business performance. The HR function is required to become more business oriented, and at the same time line management is taking on more operative HR tasks. The presence of HR business partners and outsourcing the non-strategic HR specialist tasks becomes a prevailing operating model at the subsidiaries of MNCs in the Central-Eastern European region.

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CRISIS MANAGEMENT DECISION SUPPORT SYSTEMS IN LOCAL LEVEL OF PUBLIC ADMINISTRATION

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ABSTRACT

Emergency or crisis situations at the regional level have certain peculiarities. One of the major problems is the complexity of communication between local authorities and managers of rail infrastructure. Very often there is an incident on the rail and local authorities become aware too late. In the project KISDIS can be this information disharmony decrease. It is believed the use of smart mobile phones and automated information sharing. Preparation of decision support systems requires a multidisciplinary approach and the involvement of experts from various fields. Planned project results will be fully operational information system to support decision-making.

Key words: crisis management, decision support system, risk assessment, project KISDIS

INTRODUCTION

Aim of the authors is to introduce up-to-date results of the applied research project which is being solved throughout the period of 2012-2015 within the Safety research of the Czech Republic. Currently, the entrance analytical parts have been elaborated in detail and thereby they allowed the authors to prepare a software device which will contribute to the automatised expert control of critical situations in rail transport and their connection with local and regional authorities.

The practice thus far has revealed serious problems in communication between rail infrastructure administrator, rail transport companies, integrated rescue system, towns, cities and regional authorities. By the formation of extreme situations and crisis situations, there often appears discontinuance in information stream, or vice versa, its duplication or reduplication. (Dvorak & Hruza 2013) (Dvorak & Sventekova 2012)

Investigators of project VG20122015070/Ministry of Interior of the Czech Republic on the "Complex Automated Information System for Remote Management of Crisis Situations in Rail Transport with Focus on Critical Infrastructure", called KISDIS, focused on the solution of partial problems in the middle part of the solution, which are related to risk analysis. The current aim is to focus the attention on those risk origins which might have a definite impact on the life and health of people in the region and on the functioning of rail transport.

The first stages of the project in 2012-2013 are aimed at developing the methodology which will exploit earlier defined types of hazards in the area of rail transport of the Czech Republic. With regard to the overall goal of the project it was necessary to define a functioning data set, which will be the basis for the future expert information system. The outcomes of initial stages are very unique and original. (Vidrikova et al 2011)

THE ENTRANCE OF RISK ANALYSIS HAVING AN IMPACT ON RAIL TRANSPORT

The precondition for a complex information support on local and regional basis in connection with rail transport is the elaboration of thorough risk analysis. Investigators were gradually solving the multicriterial task focused on the following crucial aspects:

- the determination of hazardous location
- the determination of risk source
- the activation of risk source
- reason why the risk source may be activated
- event which may occur upon the activation of risk source
- assumed consequences (Government Regulation 2010), (Dvorak et al 2011).

Assessment of risk in rail transport is a very complex problem which needs to follow a whole range of technical norms, specifications, regulations, acts and decrees of the European Union. One of the major documents is the regulation about implementation of Common Safety Methods which was published by European Railway Agency in 2009. (Regulation 352/2009) It came into effect on 1st July 2012. Up till now, with regard to the complicated process of implementation, it has not been possible to implement the CSM. Therefore, the fixed deadline was postponed to 21st May 2015.

By the implementation of ISO 31000, investigators had to keep the procedure set by the regulation and at the same time, they had to take the specifications of rail transport into account. These specifications are complicated due to the interlacement of activities of various subjects, institutions and companies (infrastructure management, transport enterprise, transporter, civilian, employee, public passenger and potential assailant).

The risk sources were transferred into particular hazard type names due to the preparation of a model and possible programming. It is registered in one sentence consisting of these parts, i.e. EVENT — RISK SOURCE ACTIVATION – LOCATION – CAUSE, in the following format:

- “name of EVENT” caused by
- “name of RISK SOURCE ACTIVATION”
- in “name of LOCATION”
- caused by “name of CAUSE”.

After the analysis of a particular risk, it is necessary to specify the probability (frequency) of evaluated situation formation and its presumed consequences while following the given norms and CSM. The outcome of all the given variables is inscribed into a matrix of risks. In the matrix of risks, respective risks are inserted into groups - extreme, very major, major, medium, minor, very minor. Depending on the device, suitable precautions for risk reduction are being defined afterwards.

PROPOSE KISDIS INFORMATION SYSTEM

Detailed risk examination is the presumption for the formation of mathematical module for software application writing. The KISDIS information system consists of control and monitoring nodes. It includes at least one control node with the KISDIS Windows system. In case of need a monitoring node of another information system may be added to the KISDIS system. The main part of the KISDIS Windows system consists of three main components:

- KISDIS Windows Client,
- KISDIS Windows Mobile,
- KISDIS Windows Server.

The KISDIS Windows Client component will serve for inserting and editing the information on the management of crisis situations in the database. The KISDIS Windows Client component will be

installed into the crisis manager's work station. The KISDIS Windows Mobile component will serve for receiving, displaying and reverse sending of information on the duties of task forces. This component will be installed into the task forces' mobile phones. The KISDIS Windows Server component will provide the exchange of information between the KISDIS Windows Client and the KISDIS Windows Mobile components. The information will be stored into the KISDIS database. Each control node will have one KISDIS database.

The mutual independence of all three components has been chosen as the main criterion of functionality of the whole KISDIS Windows system. Thus each component has been operational even in case the other components are not. (see Figure 1).

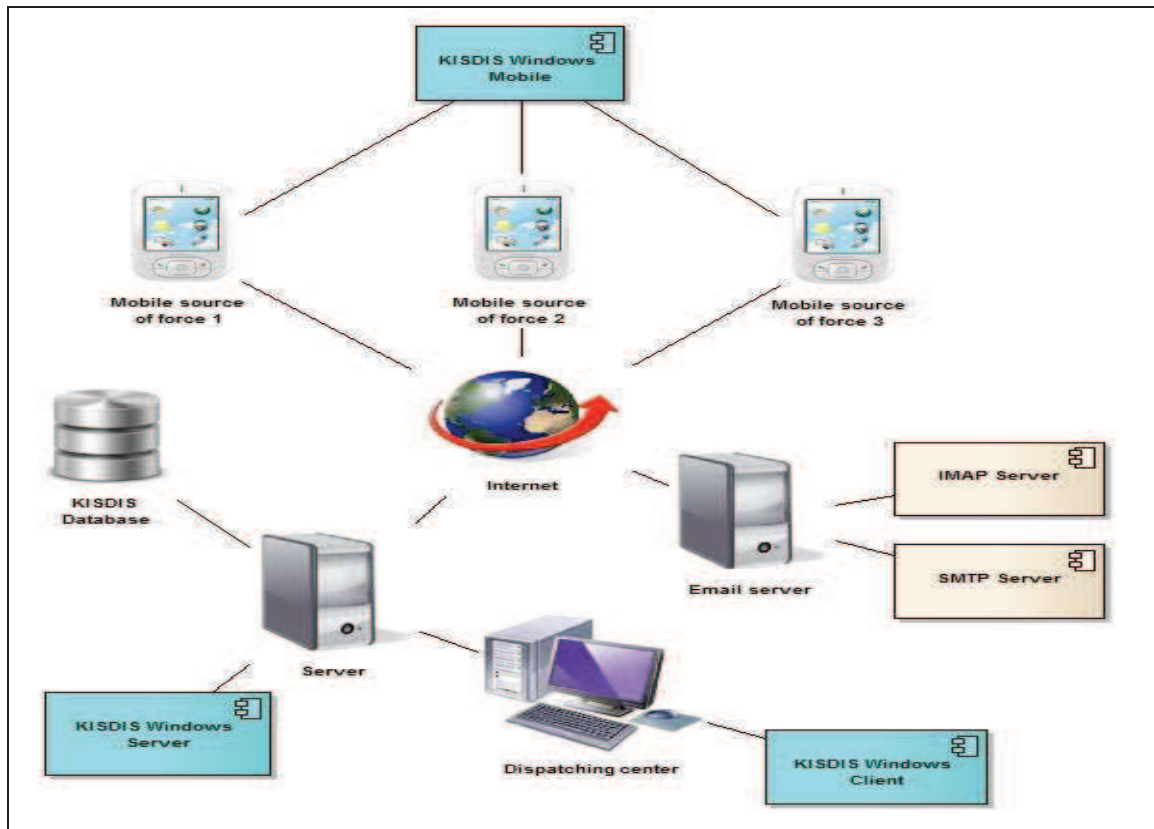


Figure 1: Basic KISDIS Windows model of employment (author Kasal, R.)

SMALL KISDIS CASE STUDY

Identification of event causes in transport

Selection of "Causes", separately for each "Location", in relation to "Risk source activation", carries out according to column "Name of cause". To the "Risk source activation", always add only one (initial) cause. If you come to conclusion that there may be more initial causes which lead to the particular risk source activation, it is possible to insert them separately, however, always as a new cause. Column "Content" is used in the selection phase and the examination of particular risk formation.

Identification and division of event location in transport

Selection and division of location events having an impact on maintenance needs to be carried out according to the following schedule. The event was formed:

- on communication
- around communication
- in vehicle
- within transport company

Construction of threat nomenclature

During the threat nomenclature, for the possibility of its processing in KISDIS, it is necessary to keep the principle of not creating a name with more than 250 signs. The aim is to obtain the names of all possible threat types in the following form:

Table 1: Example of a complete name of a threat

Event	Risk source activation	Location	Cause
Alteration of maintenance conditions due to	flood	on communication	caused by extreme weather conditions

Template for determination of threat name

To prevent omitting any of the names during the identification of threat names, the following template has been created. In the template, all the selected "Risk source activations" (max. 59 signs) are being inserted and gradually, for each selected "Location" (max. 4) one of 14 "Causes" is being inserted repeatedly. Following this method, the listed index (see below) is formed obtaining maximum number of variants which have $59 \times 4 \times 14 = 3304$ lines altogether.

Table 2: Fragment of the threat index in KISDIS

Event	Risk source activation	Location	Cause
Alteration of maintenance conditions due to	maintenance device theft	on communication	caused by atmospheric and cosmic disturbances
Alteration of maintenance conditions due to	failure in information device	on communication	caused by atmospheric and cosmic disturbances
Alteration of maintenance conditions due to	vehicle immobility	on communication	caused by atmospheric and cosmic disturbances
Alteration of maintenance conditions due to	panic of public passengers	on communication	caused by atmospheric and cosmic disturbances
Alteration of maintenance conditions due to	disruption of roadway position	on communication	caused by atmospheric and cosmic disturbances
Alteration of maintenance conditions due to	Bridge damage	on communication	caused by atmospheric and cosmic disturbances
Alteration of maintenance conditions due to	Fire on road	on communication	caused by atmospheric and cosmic disturbances

Work of a crisis manager therefore results in a complete index of real threats in KISDIS system which is subsequently implemented into a particular location in the region.

CONCLUSION

Determination of KISDIS project has reached its second half. Currently, the attention of investigators is focused on the formation of software segment of the expert information system. Considering the universality of this determination, the project has a highly international potential. Therefore, its presentation at international conferences is considered being an important part of its determination as well. The possibility to introduce results of applied research in Serbia belongs to essential opportunities for consequent dissemination.

Within the next stage of project determination, formation of an expert team will be crucial to test particular fragments of the new KISDIS expert system. The aim of the project is a thorough implementation of KISDIS into practical use from January 2016. Considering project range and its targets, investigators assume its further dissemination in Slovakia at least, maybe in other countries as well. (Simak et al 2012)

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SOCIAL CONTEXT OF BUYING BEHAVIOR: BENEFITS OF APPLYING ANTHROPOLOGICAL PERSPECTIVE IN MARKETING PRACTICE AND RESEARCH

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ABSTRACT

The goal of the paper is to point out the benefits of using anthropological perspective in marketing practice and research since it helps understanding micro-cultural meanings and values systems that pattern consumption. While much consumer behavior research has been traditionally focused on psychological factors of the individual, the anthropological perspective views consumer behavior as a social science stressing out the social context of buying behavior and motivation where the consumption process has meanings that resonate from culture. Since it includes more subjective and qualitative methods that are invaluable within a number of contexts, anthropological approach is becoming increasingly important for better understanding of consumer beliefs, values, and practices.

Key words: social context of buying behaviour, influence of culture on consumption patterns, corporate ethnography, cultural analysis, qualitative and observational research

*“Not everything that can be counted counts and
not everything that counts can be counted.”*

Albert Einstein

INTRODUCTION

Anthropological perspective has recently gained recognition in the business community as a valuable tool for market research (Sunderland et al., 2007). Unlike traditional approach in studying consumer behavior which is focused on psychological and statistical approach, an anthropological perspective views consumer behavior as a social science stressing out the social context of buying behavior and motivation where the consumption process has meanings that resonate from culture. Anthropological approach is effective in consumer studies because it offers an alternative perspective to one of the most challenging concepts in marketing, and that is understanding of buyer behavior and customer decision-making. The reason of the importance of the research continuously done in this field of marketing (Keegan et al. 1992, de Mooij 2004, Sunderland et al. 2007, Solomon 2010) lies in the fact that there are variety of influences that affect customer activity. For example, Abrams (2000) indicates that in some cases quantitative analysis might not help decision makers to truly understand consumers, while “descriptive anthropology” which includes qualitative and observational research often provides revealing insights.

It is estimated that between 25 percent and 50 percent of behavior is culturally determined (Gannon 1993). According to Harris and Moran (1987), this is due to the fact that culture provides people with a sense of who they are, establishes rules of how to behave and gives them a feeling of belonging. Therefore, it is important to look at cultural variation to understand variation in behavior because culture provides a learned, shared, and interrelated set of symbols, codes, values, knowledge, etc. that justify and motivate human behavior, and by thus it represents an important

factor that influences buying habits, affecting not only what people buy, but also how they buy and when they buy.

The benefit of implementing anthropological perspective and methodology is because they provide the opportunity for an “an inside look at the cultural trends, attitudes, and lifestyle factors that influence consumer decisions” (*Harvard Business School: Working Knowledge* at <http://hbswk.hbs.edu/archive/2514.html>). Therefore, the intent of qualitative approach and conducting ethnographic research in consumer environments is to dive deeper into human consumption activities and to help answering the questions such as How do buyers choose? How buyers process information and what goes on in their brains before, during and after the purchase? or simply, why buyers do what they do (or don't).

THEORY: REACHING BEYOND THE BLACKBOX MODEL

The fact is that both businesses and consumers exhibit patterns of buying behaviour. However, since business customers mostly have some formalized process of buying, the more challenging model and more relevant for the purpose of this study is the customer buying behavior. Numerous marketing professionals have put the effort into examining customer behavior and each seems to approach it from a different angle. One of the attempts in understanding consumer buying behavior uses the so-called 'blackbox' which depicts what is happening in person's brain between the period when the consumer is exposed to marketing stimuli and the actual buying decision. The following figure shows the famous Black box model of consumer buying behavior.

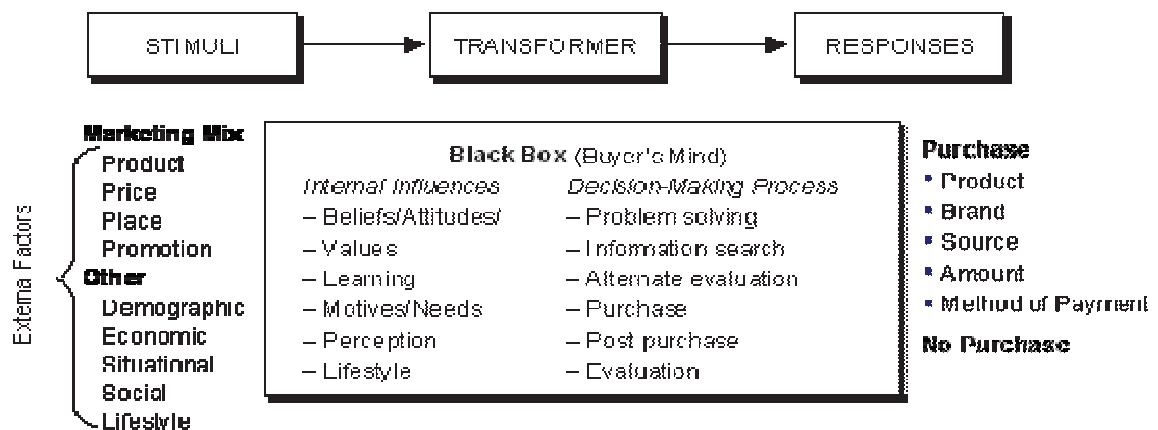


Figure 1: The Blackbox Model of Buying Behavior
 Source: Keegan et al. 1992

This model is called the 'black box' model because we still know very little about how the human mind works. The fact is that we cannot detect what exactly goes on in the mind so we don't really know much about it, just like a black box. The essence of the model is that consumers respond to different stimuli after they have 'processed' them in their minds suggesting that external factors act as a stimulus for behavior. It is important to note that specific buying behavior response will be generated only after these stimuli are processed through particular consumer's personal characteristics and decision-making process. It is a combination of internal and external factors that make human consumer actions complex to comprehend and predict. The complexity of buyer behavior is deeply rooted in both psychology and sociology and recent implementation of anthropology in interpreting human consumption patterns represents another attempt in seeking more profound understanding of human consumption patterns and drivers of purchase.

Einstein's quote from the beginning becomes relevant here due to the black box in buyer's mind and the fact that we are not perfectly rational, sensible buyers, so we do not always choose goods and services solely on price, performance and availability. Very frequently we base many of our

purchases on a whole set of emotional reasons which are often non-rational reasons and hidden deep in our subconscious. For this reason, researchers have even gone so far and looked at people's brains. This was done by asking people questions about different products and comparing what people say about the products to what they *think* which was displayed on their brains scan. Although scanning people's brains for marketing purposes may raise some serious privacy issues, due to the fact that eight out of ten new consumer products fail, even when they are test marketed, it is understandable that marketers want to find out if there is a difference between that what people say about potentially new products and what they really think about them?

More and more marketers are using anthropological methods in their marketing practice. During the last decade there are many cases of anthropologies' methodologies being used and replacing psychology in market research (Sunderland, P, & Denny, R. 2003). A good example of benefits of using anthropological perspective are the advertising effects, where an anthropologist studies how people react to the ad which helps revealing what exactly people do during commercials; some go to the kitchen, or bathroom, while others mute them altogether. Since people are performing multiple tasks, the only way to know what they are doing is through observation, one of the fundamental skills that anthropologists use in their field studies. Another example of anthropologists' contribution to research on consumers' behavior is in helping high-tech companies to design new products for the market based on their findings. Through observational research, anthropologists employ their ethnographic skills by interviewing, watching, and videotaping consumers in their natural environments. It is reported that companies like Apple, Motorola, Xerox, and Intel, as well as telecommunications and cable companies, have brought anthropologists into the corporate world. The goal is to apply what the anthropologists learn to new product concepts by understanding the customer (Hafner, 1999).

METHODOLOGY: INTERDISCIPLINARY STUDENT PROJECT FEATURING QUALITATIVE RESEARCH FRAMEWORK

As an example of using anthropological perspective in studying socio-economic issues, a selected from an interdisciplinary project done by students enrolled in Sociology course at Zagreb School of Economics and Management (ZSEM) in Croatia will be presented here. The project called Sociological Perspectives in the Economy and Everyday Life embraced interdisciplinary analysis, research and critical thinking comprised 63 smaller studies on the current socio-political and economic issues and events. However, for the purpose of this study only a couple of thematically relevant research projects' findings covering the topics on culture, consumerism and consumer practices are selected and commented here. Although the students were guided in their field of research, they enjoyed significant freedom in terms of placing emphasis or highlighting certain segments of the given topic. Furthermore, there were required to do a team analysis of the data as well as the discussion of the results. Conclusions and implications of different research areas explored within the overall project were discussed in-class. In addition, students had to upload their structured reports on the course webpage by thus making it available for the rest of the student body for comments and observations. It is interesting to note here that all the findings presented in this paper were conducted by students and therefore hereby represented analysis is in fact the discourse of a discourse while all the data is combined and used for the content analysis of consumer culture and its relation to collective and individual identities.

STUDENTS' RESEARCH FINDINGS: SELECTED ASPECTS

Recent claims by Amin & Nigel, (2004), Sassatelli, (2007), Slater (2002) and Suchman (2002) that culture and consumption are related and inseparable, directly opposes neoclassical perspective which perceives buying process as "neat" rational and systematic action without taking into account social convention and cultural dynamics. Unlike neoclassical tradition, such approach takes into account qualitative differences in context and uses of products. Let us now see how

selected parts of the students' projects used the qualitative research framework in order to analyze the social context of changing values over time as well as the formation of the consumer culture. In their analysis, students linked the development of free markets with the breakdown of traditional value system and not only social but also particular political system (in the context of Croatia). Such observation was motivated by the statement from the interview that compared the values of socialist versus capitalist system that took place in Croatia in the nineties. Students immediately linked the raise of capitalism with cruel materialism lacking the human dimension:

Today material values are what matters, the man as individual is no more relevant. This is the example of consequences brought by capitalism which culminate in today's society. Material things come and go, but moral values are one that permanently remain incorporated.

Such student observation brings to attention the concept of moral values linked to history, politics and tradition suggesting that modern consumption-based capitalism breaks with the traditional consumption where a limited range of needs should (and can) be satisfied, while in contrast, the modern consumer culture and practices of contemporary consumers are geared towards increasing the consumption volume. The inability for the constant expansion of consumer practices and consumed goods develops a frustration among modern consumers. It is therefore reasonable to conclude that the modern consumer culture influences general orientation towards consumption, and towards numerous things that one can buy.

The next relevant topic that appeared in the interviews touches the identity categories associated with money, or social groups formed on the basis of financial criteria. Youth is one of the most important societal groups. From the communal perspective, they are on the verge of taking power and responsibility for the functionality of a society. From the perspective of consumption they are on threshold of maturity to become fully independent consumers and as such are in the position to change the market forms. Precisely for this reason it is important to understand the forces that affect the process of identification of youth with the culture of consumption, which are clearly integrated in their attitudes towards money. One possible solution, as seen by one of the informants is as follows:

How many young people value money, depends from family to family, more specifically on the way they are raised. Much of today's youth does not know the true value of money, because they are accustomed to being "served". I think that the parents made a mistake and it is the only problem. Prodigality has taken too much toll.

However, it seems that this informant was a bit too harsh to young people, since in their final commentary the young research team members expressed fairly high quality and critical attitude towards the consumer culture:

"As we say in a proverb," Man creates money, no money creates man. "Although it may be easier for those who have money in certain situations, there is a high probability that they are unhappy in some other aspects of life that can not be bought with money. Also, even though money has a very big role in everyday life, we believe that at the end of day only things that matters are those things that cannot be bought.

DISCUSSION: THE BENEFITS OF CULTURAL ANALYSIS

Recent explosion in the use of ethnography in the corporate world resulted in popularization of cultural analysis whose primary goal is to identify categories of meaning that motivate purchase and use of brands. Using various methodologies in anthropology such as focus groups, semiotics and visual ethnography, ethnographic market research is helping marketers situate consumers within the larger social and cultural context. Since culture also determines what is acceptable with

product advertising and determines what people wear, eat, how they entertain or travel, different society means different cultural values and levels and types of needs. For this reason, in recent years, a vast number of guides of foreign countries has been written in order to help those in international business to understand diverse cultures and help them be more effective within that context.

In the context of general market research, the benefit of using cultural analysis is in “understanding of the symbolic world of the subjects of study, seeing the world through their eyes and using their shared meanings” (Elliott, & Jankel-Elliott, 2003). As such, anthropology and its ethnographic methods have been becoming increasingly popular sources from which to borrow tools to investigate marketing and consumer behavior. As a result, along with the conceptual and methodological contributions anthropology offers, there are benefits of paying more attention to cultural concerns in studying consumer behavior because many consumer behavior related concepts such as consumption motivation, family/friends influences on consumer behavior, cultural influences on consumer behavior can be used in order to describe and analyze both the varieties and generalities of human behavior, values, choices, preferences, practices, beliefs, attitudes, and so forth. In order to adequately comprehend human consumer actions and drivers of purchase, it is essential to “understand micro-cultural meanings and values systems that pattern consumption” (Thompson & Troester, 2002). Such approach allows the researcher to better understand how are purchase and consumption rituals, processes and decisions knitted into people’s social lives. This is in line with present consumerism analysis in America (Walker, 2008) where marketing no longer manipulates consumers, but they are using it to express individual identity and social outlook. Furthermore, Suchman (2007) and Miller (1998) claim that commodities influence the lives of their purchasers and these are reinterpreted within the particular practices of their use. This also closely follows Miller’s idea that things make people just as people make things. (Miller, 2010).

CONCLUSION

The ultimate contribution of this study is to encourage the use of anthropological concepts and skills in business and business-related research. The contribution of anthropology and sociological perspective as marketing tools are fields whose time has come. In the past, only a few major consumer product companies, like Procter & Gamble, Whirlpool, Volvo, Microsoft, Intel etc., tinkered with anthropological research into consumer behavior. Now, more and more companies are adopting this perspective in order to drive the design and development of new consumer products. As it is stated in Harvard Business Review: “Corporate ethnography isn’t just for innovation anymore. It’s central to gaining a full understanding of your customers and the business itself.”(Anderson 2009:1) In other words, since the ethnographic method enables us to see people’s behavior in their own terms, this study attempts to encourage adoption of qualitative approaches in studying consumer practices and behaviors. The reason lies in the fact that the analysis of buying patterns and consumption rituals reveals important data that may help firms in every industry to understand customers and adapt to fast-changing markets.

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PERCEPTION OF GREEN ECONOMY

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ABSTRACT:

The following strategic directions for development of green economy in Serbia are explained in this scientific paper: harmonization of social and economic development with EU policies in the field of efficient use of natural resources and development followed by low gas emission with Greenhouse effect, strengthening and support to the environmental sector as well as definition of long-term institutional and financial framework as a support to sustainable development. Climatic changes, economic and energy crisis impose a need for social and economic changes directed towards encouragement of the so called "green economy". The concept of green economy assumes a wider concept of the use of resources in relation to green entrepreneurship because it is related to the whole branch or economic sector, while green entrepreneurship represents an opportunity given to every individual to start his/her own business aimed at making economic advantage on the principles of sustainable development. In the definition of green economy the stress is put on the emission of a small quantity of carbon, efficient use of natural resources, social inclusion and wider economic benefit. The paper also defines the aspects in which green economy makes better chances for sustainable development which assumes the increase of income, reduction of poverty and improvement of the quality of life.

Key words: green economy, green entrepreneurship, sustainable development.

INTRODUCTION

Work group for green economy of International Chamber of Commerce defines "green economy" in the following way: "Business community's attitude is that the term "green economy" is incorporated in a wider concept of sustainable development. "Green economy" is described as an economy in which economic growth and ecological responsibility function mutually by strengthening one another and in the same time encouraging the progress of social development. Business and industry have a key role in giving economically sustainable products, processes and services as well as solutions necessary for transfer to green economy. (The Study on Achievements, 2012)

The concept of green economy is promoted as means which can help the countries to reach sustainable development. The world is an eyewitness of the fact that economic growth, although it managed in helping millions of people to rise from poverty, has often been carried out on expense of the environment and social aspects and it hasn't brought welfare to all. The decades in which new values and welfare were being made on the principles of traditional economic models were not successful in the struggle with the phenomena of social marginalization and excessive use of resources. It is necessary to assure that economic growth provides welfare both to the environment and the society. Sustainability still stays primary long-term aim but additional efforts must be directed towards realization of green economy concept if this aim is to be achieved. (The Study on Achievements, 2012)

SOCIAL PERCEPTION OF GREEN ECONOMY

Sustainable development represents holistic concept and paradigm which links economy, society and the environment and strategies of green growth can be considered as an appropriate contribution for practical policies within it. Taking this into account it is clear that green economy represents something much more concrete than sustainable development.

The following strategic directions for development of green economy in Serbia are explained in this scientific paper:

1. Harmonization of social and economic development with EU policies in the field of efficient use of natural resources and development followed by low gas emissions with Greenhouse effect (which includes efficient use of natural resources and energy, the principle of sustainable production and consumption, green procurement, reforms of economic and fiscal policies which will establish appropriate signals for markets, measures aimed at making the economy with low consumption of carbon, education and innovations for sustainable development, etc.);
2. Strengthening and support to environmental sector (including promotion of investments in infrastructure which supports all aspects of sustainable development, from opening new work places to environmental protection, support to strengthening of professional capacities, etc.);
3. Definition of long-term institutional and financial framework as support to sustainable development (including the existence of compulsory budget line for sustainable development in every key institution, implementation of the system of influence analysis on sustainable development, promotion of stable institutional organization along with financial framework for sustainable development);

Government

The Government have issued several basic documents via their Ministries to improve further development of Serbian economy in accordance to the principles of sustainable development. There isn't any active project in Republic of Serbia which directly supports development of green entrepreneurship but there are numerous programs by which businesses harmonized with environmental protection are promoted and supported. Moreover, there are programs financed by EU which support implementation of green business through the program of financial aid.

Business ambience has been significantly improved thanks to adoption of new laws harmonized with EU regulations and institutional reforms in fiscal and financial system. By adoption of the Law on Energy in July 2004 the process of energy sector reforms began aimed at providing conditions for development and more efficient work of all entities employed in energy sector as well as harmonization of this Law with EU principles. (Development and Environmental, 2004)

The basic characteristic of the Law on energy is abolition of monopoly and introduction of competitiveness as well as making a framework for regulation and free access to energy networks as natural monopolies (transfer, transport, distribution of energy). On the grounds of this Law a great number of bylaws was adopted. In July 2011, a new Law on energy was adopted. (Development and Environmental, 2004) The Strategy of energy development, Republic of Serbia until 2015, for the period from 2005 to 2015 was adopted at National Assembly of Republic of Serbia in May 2005 and it defined basic priorities of Energy sector development in Republic of Serbia. In 2010, a project task was prepared for a new Strategy of energy development until 2025, 2030. (Program of realization, 2007)

Energy balance of Republic of Serbia is made every year. The balance includes energy flows for the period of three years: realization of the balance for previous year, estimation of the state for the current year and the plan for the next year. This document is adopted by Government of Republic of Serbia on the proposal of Ministry for Infrastructure and Energy. (Energy Balances, 2013) Among other laws and strategic documents for the work of energy sector it is important to mention the following:

- The first action plan for energy efficiency of Republic of Serbia from 2010 to 2012 which was adopted by Serbian Government in July, 2010;
- The law on pipeline transport of gas and liquid hydrocarbon which determines the conditions for safe pipeline transport;

- Law on Environmental Protection and the Law on Amendments to the Law on Environmental Protection;
- Regulation on Measures for encouraging the production of electrical energy by using renewable energy sources and combined production of electrical and heat energy, amendments to this regulation were made in January 2012;
- Regulation on conditions for achieving the status of preferential producer of electrical energy and criteria for evaluation of conditions fulfillment, amendments of this regulation are adopted in January 2012;
- Action plan for biomass was adopted in 2010. (Ministry of Energy)

The Agreement on establishing Energy community (between EU, represented by European Commission and the countries of South - East Europe, October 2005) was signed and ratified in July 2006. The main aim of the Agreement is to integrate the South – East Region, including Republic of Serbia in the common energy market. (Development and Environmental, 2004) This is a key document between Serbia and EU which covers necessary reforms in energy sector for accession process to EU, preparation of energy market for full implementation of EU regulations, directives of EU and participation on the common European energy market. Equally important conditions are improvement of the environment, increasing energy efficiency and the use of renewable energy sources in the Region. Realization of the Agreement on establishing Energy Community is delegated to Ministry for Mining and Energy.

Civil Society

The research that was carried out for the sake of Master thesis "Development of entrepreneurship in the function of using and promotion of renewable energy sources in Republic of Serbia" in 2013 which included the issues on green business, green technology and energy efficiency showed that people didn't know for these terms although they had heard about them. This was especially related to the issues – energy efficiency and green technology. (Opačić, 2014) Researches of public opinions about the level of consciousness related to energy efficiency showed that a high percentage of the interviewed knew or merely assumed that they knew what the term energy efficiency meant. These respondents defined energy efficiency as saving energy and rational consumption. (Opačić, 2014)

Business Sector

Considering the knowledge of the researched companies with the concept of green entrepreneurship and according to this research, a certain number of the interviewed representatives of the business sector performed their business according to the principles of green entrepreneurship although the term wasn't completely clear to them. (Opačić, 2014) The representatives of business sector mainly said that they had heard about green entrepreneurship but that they weren't completely informed about it. The first association of the notion green entrepreneurship was business according to the principle of environmental protection. (Opačić, 2014) Development of green entrepreneurship was interesting for them and they expressed their intention to harmonize their business with this concept in the future. Considering further development of green entrepreneurship the Ministry of Energy made a study in which possibilities for building mini hydropower plants were showed. In this way, the concept of energy production from renewable energy sources and making business based on it was directly promoted, which can influence the promotion of green entrepreneurship. According to the Cadastre, in Republic of Serbia there are about 800 registered regular waterflows. Most of them (80%) are small waterflows and the rest are middle and big waterflows. This percentage can be characterized as favourable water structure. There are no precise data about the locations on which micro power plants can be built.

Expert Publicity

At our universities there are experts who can give necessary knowledge for development of green entrepreneurship concept but in today's teaching plans and programs green entrepreneurship hasn't been employed enough. There is a need for further development and the greatest chance for this are expert discussions, conferences, round tables and similar which will be organized in the future.

Training programs

There isn't any organization in Republic of Serbia which deals only with promotion of green entrepreneurship. However, the organizations which promote development of entrepreneurship as a form of business through different programs are:

- (1) Chamber of Commerce, Republic of Serbia. Contribution of Serbian Chamber of Commerce is reflected in:
 - Discussions on economic regulations;
 - Carrying out strategies, researches and analysis;
 - Encouraging competitiveness;
 - Organization of fairs, seminars and trainings.Chamber of Commerce is a partner of Enterprise Europe Network in Green project, whose aim is improving business of small and medium enterprises.
- (2) Union of employers. Contribution of Union of employers, Republic of Serbia is reflected through:
 - Free legal advice to all members;
 - Free Internet presentations;
 - Organization of seminars, fairs, workshops, trainings and round tables with discussion about the problems which employers face with in the field of food production and civil building.

Education for sustainable development and green economy

In order to implement the principle of green economy as well as sustainable social policy, sustainable use of natural resources and environmental protection the persons who will professionally carry out the activities in this field must be defined. It is necessary to anticipate the market of necessary occupations, knowledge and skills in order to achieve the expected results. (The Study on Achievements, 2012) In other words, it is necessary to harmonize educational programs with labour market needs in relation to green economy. Educational level and informing of population are of crucial significance for economic revival in Republic of Serbia. Therefore, it is necessary to define and implement the whole strategy of educational development whose focus will be on improving quality, efficiency, competitiveness, equal conditions for all in educational system as well as to make a framework of education for sustainable development. Education for sustainable development upgrades education in the field of environmental protection and it represents education for the future and future generations. It is important to establish a flexible network of educational institutions which will be adjusted faster to demographic changes and various needs of customers. A continual work on improving teacher's occupation and modernization of their competences are needed. Preliminary analysis show the need for upgrading the current occupations with new, green abilities and knowledge. For the time being, we can say that the initiative and obligation to integrate education for sustainable development into educational system is still, in great extent, without visible progress taking into account that competent authorities haven't taken necessary measures towards fulfilling this aim.

BUDGET LINE FOR SUSTAINABLE DEVELOPMENT

For development of green entrepreneurship the crucial issue is how to provide financing of these projects. It is obvious that the funds for these projects are limited and a financial crisis and reduction in economic activity make an additional pressure on increase of price of the available loans and less financing of the planned projects. In the future period, the expected financial sources can be found in:

- State funds, EU funds and other international and national donors;
- Local communities;
- Financial institutions (banks and state institutions).

Taking into consideration the current indebtedness of local government, it is expected that the realization of these projects in the future will depend, in great extent, on state finances (including EU funds and other donors). The projects of public interest which will be financed by the state related to more efficient use of energy are of special interest. The projects whose aim is saving electric energy

through the use of renewable energy sources belong to this group. In realization of sector strategies it is clear that they are relied on budget distribution in the relevant sectors. Foundation of the Fund for energy efficiency is anticipated by draft version of the Law on rational energy use. This Fund should be the main financial mechanism and institution which provides financial means for encouraging rational use of energy and increase of energy efficiency in Serbia.

APPROACH TO POSSIBILITIES FOR GREEN ENTREPRENEURSHIP

Development of green entrepreneurship is possible, first of all, in the following sectors:

- energy;
- waste management;
- eco – agriculture;
- eco – tourism;
- recycling;
- education;
- eco – products.

Government, through its bodies, makes numerous strategic documents aiming at better presentation of possibilities (resources) for development of projects and jobs that will lead to better use of available resources, therefore economic and social development. (The Study on Achievements, 2012)

OBSTACLES TO DEVELOPMENT OF GREEN ENTREPRENEURSHIP

There are examples of green entrepreneurship in Republic of Serbia. There is no organized promotion of this form of business but conditions are being made for its faster development through development of entrepreneurship in general and also ecologically acceptable business. Potential obstacles that can appear are almost the same ones which entrepreneurs face with in general. Development strategy of SMEs has recognized the following obstacles:

- Low level of knowledge for doing business;
- Regulative and administrative obstacles;
- Limited approach to available financial sources in the medium and long term;
- Inadequate approach to sources of business and market information and
- Limitations related to available specific business services. (The Study on Achievements, 2012)

Entrepreneurs have faced with numerous challenges in recent years among which the following can be distinguished:

- Loans' collapse and non-payment of debts, smaller turnover and low purchasing power of customers in general;
- Municipal and state taxes still limit business and development of companies, especially entrepreneurs;
- Among non-administrative obstacles the most distinguished ones are high costs of work, difficult approach to financial means and disloyal competition;
- Requirements of entrepreneurs aimed at improving business climate related to reduction of taxes, more efficient support of banking sector and administrative relieves system have been increased recently;
- Entrepreneurs as well as companies have poor collaboration with agencies and organizations which support business. The weakest collaboration is between these institutions and micro enterprises. (The Study on Achievements, 2012)

CONCLUSION

Development of green entrepreneurship should be the interest of all – local authorities, Government, individuals who want to become entrepreneurs. It is expected from administration to make the starting

procedure of this type of business easier, to integrate it institutionally and to recognize green entrepreneurship as a significant developing resource for the future. By introduction of appropriate regulations through laws and bylaws and by inclusion of green entrepreneurship in educational system, future generations will be informed about the significance of environmental protection and the possibilities of successful business according to this principle, which will all contribute a lot to further development of entrepreneurship and the economy in general.

Indirect effects on the society are even greater because, on one side, they contribute to integrational processes which are still in progress in Serbia and, on the other side, they contribute to increase of global competitiveness and attractiveness of our country for foreign investments. The Government (via the Ministry of Economy and Ministry of Energy, Development and Environmental Protection) should be most interested in the development of green entrepreneurship, primarily for its significance in healthy living and business which will protect the environment. These two Ministries should help this form of business to develop, through introduction of ecologically responsible business, so that the use of renewable energy sources and economic benefit become greater. The role of the Government is crucial because only if the Government finds the interest in this issue, it will make conditions for other groups to find their own interest and contribute together to better realization.

Besides the Government, the institutions which support business development (NGO, business associations), universities and wider publicity have the important role in this process. Institutions for the support of business (primarily NGO) have a specific responsibility, because they can give their critical opinion and directly influence the development and support to green entrepreneurship (business associations). The interest of these institutions should be the greatest in developing and implementation stage because this should be their mission – development and support to green entrepreneurship. The way they are going to achieve their aim is individually defined but the interest must exist because of the principles which these institutions have to respect.

The most important role of universities is to educate. From professional publicity (primarily scientists) is expected to promote the significance of green entrepreneurship and its benefits, following the modern principles of business, actual issues and positive European and the world practice.

Considering this, education is of great significance because it can make an influence on the way of thinking of future generations and give contribution which can make permanent effects. If we want to promote this form of business, it is necessary to coordinate the activities in all groups of interest.

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CORPORATE SOCIAL RESPONSIBILITY AND BUSINESS EXCELLENCE

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ABSTRACT

This paper provides the analysis of contemporary approach to business organization management. The main objective of modern business is achievement of business excellence and world-class of products and services. Companies which actively and continuously apply modern management methods and techniques have significantly better chance to strengthen their competitive capability on the global market and to assume stable market position with perspective for further market development. Modern business philosophy implies that organization has to be responsible for its actions and steps, and towards all stakeholders in environment. Attaining of business excellence goals of an organization presupposes built corporate social responsibility. In order to become competitive internationally, domestic companies should change the way of thinking and adopt modern global achievements in the field of organizational management.

Key words: social responsibility, competitiveness, quality, business excellence, knowledge.

INTRODUCTION

Modern business implies prestructions of business functions. From traditional understanding directed to linear way of thinking, where all business functions were equally important, companies have to turn to proactive thinking which implies understanding and creating of changes, as well as giving importance to those business functions which enable a company to create, maintain and improve competitive position on the global market. Functions which have strategic importance for doing business inside a company are research and development, quality and marketing. The research and development function is a basic switch for development of a business company. Constant improvement of a business process is accomplished on the basis of implementation of quality managing concept. Marketing enables forming of a market picture and directs the business activity of a company due to spotted need and expressed customer's demands. The function of marketing is integrative because it connects not only these three but also all other functions in the company in order to gain firm market position of the company. Business has been changing in its base under the circumstances of global economy. Today, business organisations are becoming aware of the fact that the way they do business has influence on the society as well. This acknowledgement has greater consequences. Changing the attitude of business organisations in global economy due to the question of competitiveness is today under the great influence of principles of corporative ethics. Implementation of principles of corporative ethics has a global character. The public interest is a primary interest of organisation, which has to incorporate into the business politics of the organisation and business politics of an organisation has to conduct completely in doing business.

CORPORATE SOCIAL RESPONSIBILITY AND COMPETITIVENESS

Achieving business excellence is not the job of only one business function, or one organizational unit of a company, it is the result of synchronous action of all functions within the company, according to precisely defined business objectives. In modern business, emphasis is put on macro-environment instead on specific market. The focus is no longer on the consumer only, but also on the entire society. New business conditions require adjustment of business entities and building of organizational structure based on new postulates. This is particularly important for companies from countries in transition – ultimate goal of building of new organization is for it to become extremely flexible and innovative, i.e. to be able to meet the growing customer demands in shorter timeframe and to form competitive advantage which must encompass the emotional component as well. In order to achieve business excellence, a company needs to permanently improve its business. Business improvement obtains the feature of continuous business quality improvement. In that sense, the main aspects of business quality are the following:

- marketing aspect,
- business aspect and
- social aspect.

Market aspect of quality improvement refers to satisfying customer's needs, user-friendliness, and market positioning and achieving competitive advantage. Business aspect of business quality improvement refers to improvement of quality of internal organization economy – improvement of efficiency, cost reduction, work and knowledge productivity increase, profit increase. Social aspect of business quality improvement of an organization implies the improvement of social welfare in respect of life quality improvement: human health care, safety and health care of employees, protection and safety of consumers, protection and improvement of environment, preservation of natural resources, safety of entire society, business in line with regulations. Social aspect of quality management compiles business and market quality aspect, enabling the realization of synergy effect in relation to the competitive position of the company. Successful company management, which should result in achieving, maintaining and improving of competitive market position, presupposes the implementation of principle of social responsibility into the company organizational structure. Nowadays, business organizations became aware of the fact that the method in which they perform business influences the society as well. This finding has far-reaching consequences. According to Tisen at all (2006), if a company is aware of its possible influence on society, providing business, jobs, guaranteeing stable economy, then its focus must be shifted to reflect this radical view. The principles “*exist to compete*” shall have to cede position to the principle *exist to last*.

Total Quality Management is a business philosophy which emerged as logical and historical reaction of entrepreneurs to demands set by modern society. Achievement of goals of business excellence of an organization presupposes built Corporate Social Responsibility (CSR). It represents determination for improvement of community welfare through discretion business practices and contributions at the expense of company resources (Kotler and Lee 2007). Key word of this definition is discretion. It is a voluntary determination of an organization and its decision to choose and apply business practices which give contributions. Some of the reasons for application and development of corporate social responsibility are the following: increase in market share, strengthening of trade mark position, strengthening of corporate image, improvement of capability for attraction and motivation of employees, business cost reduction, increased attractiveness for investors.

Once it was enough for a company to meet basic economic goals – profit, as a basis for attaining of growth and development goals. Since 1970s, business goal which implies meeting consumer demands gains significance – informed consumers become the first and the last link in the economic chain. The company must first identify consumers' demands, and then define ways for meeting them. The 1990s have brought along the necessity to meet general social interests –

therefore, in addition to consumers and asset owners, a company in modern business has to meet wider range of interests reigning in its social environment.

According to some views (Kotler and Lee 2007), six social initiatives acting in the field of corporate social responsibility can be identified today: promotion of social objectives, marketing related to social objectives, corporate social marketing, corporate philanthropy, voluntary work for community, socially responsible business practice. Promotion of social objectives implies that companies provide funds, donations in kind, or other resources in order to raise awareness of a particular social objective, or to collect funds for this social objective. Marketing related to social objectives implies that a company obliges to donate certain percentage of revenue generated from sales of products or services for a particular social objective. Corporate social marketing implies that company assists in development and/or conducting of campaign for change of behaviour in order to improve health, safety, environment or community prosperity. Corporate philanthropy is a practice where a company directly gives donations for a charitable or social action, most often as a grant funds in cash or in kind. Voluntary work for community implies that a company supports and encourages its employees, as well as employees of partner organizations to hold through voluntary work the local social organizations and actions. Socially responsible business practice implies the situation when a company at its sole discretion adopts and implements business practice which supports a social objective, which is to improve the life in community and to protect environment.

The concept of Corporate Social Responsibility nowadays is a standard and is a constituent part of integrated management systems. Review of standardized management systems is shown in table 1.

Table 1: Standardized management systems

No	Name	Mark	Interested party
1.	<u>Q</u> uality <u>M</u> anagement <u>S</u> ystem – QMS	ISO 9001:2000	User
2.	<u>E</u> nvironmental <u>M</u> anagement <u>S</u> ystem – EMS	ISO 14001:1996	Community
3.	<u>O</u> ccupational <u>H</u> ealth and <u>S</u> afety <u>M</u> anagement <u>S</u> ystem - OH&SMS	OHSAS 18001:1999	Employee
4.	<u>C</u> orporate <u>S</u> ocial <u>R</u> esponsibility <u>M</u> anagement <u>S</u> ystem – CSRMS	SA 8000	Society

Source: Đorđević D., Čočkalović D. (2007) *Business ethics and law*. Zrenjanin: TF Mihajlo Pupin, pp. 14.

Each of these standards contains one of assumptions of corporate social responsibility concept, and SA 8000 standard is directly connected to development of this principle. Principles of SA 8000 can be applied by all companies disregarding thereof size and structure, but who wish to have socially responsible working place anywhere in the world. Companies can certify their locations, and can select special specific plants for certification. Thanks to application of SA 8000, a company can properly maintain working conditions through supply chain. Social Accountability 8000 (SA 8000) represents new international and inter-industrial standard created in 1997, and revised in 2001. Standard SA 8000 is based on ISO 9000, but its goal is improvement of working conditions in factories worldwide. The difference between these two standards is that SA 8000 includes the characteristics of requirements in supplement of system. Namely, SA 8000 requires the employer to give to employees the salaries which are sufficient for their needs, to provide safe working environment, not to employ children or engage force labour, and does not require from employees to work more than 48 hours a week. SA 8000 is based on nine components, as follows: children labour, forced labour, health and safety, free association and right to collective agreement, discrimination, discipline, working hours, compensation, and management system. Application of SA 8000 standard is important for all market factors: employees, unions, non-governmental organizations, buyers and investors, as well as company itself. Some of the most significant advantages of this standard are as follows: high motivation of employees which results in better working conditions, incentive for humane working conditions may lead to high quality product, raising public awareness that the company supported the protection of employee rights, improves trade mark and company reputation, differentiates the company compared to competition, the

company is more attractive for new buyers. The major users of this standard are companies from the fields of textile, footwear, clothes, food, toys, cosmetics and electronic products. Service and agricultural sector are still learning the advantages of their application and especially in the area of retail, fast food, export agencies and high level crop production.

International Standardization Organization published standard ISO 26000 providing guidelines for social responsibility (SR). Standard ISO 26000 is addressed to all types of companies, both in public and private sector, in developed and developing countries. ISO 26000 represents the added value of the existing initiative for SR by providing harmonization; adequate global guidelines based on international consensus of main representatives of expert group stakeholders and thus encourage the application of best practices of SR worldwide. This standard is important not only for its relation towards the company products and services and customer satisfaction, but also for socially responsible business operation.

GUIDELINES FOR IMPROVEMENT OF COMPETITIVENESS OF DOMESTIC ORGANIZATIONS

Competitive position of Serbian companies in respect of reputation on global market is extremely bad. The majority of organizations being market leaders in different fields have become socially responsible, whereby this is reflected in particular through achieving consumer satisfaction. Corporate social responsibility represents one of the pillars of business excellence of an organization. The other two pillars of business excellence are meeting customer needs and improving business productivity (Đorđević and Bogrečić, 2008). Application of IMS concept can be very important for companies from countries in transition. For a company that wishes to achieve business excellence goals at the current development level, it is completely justified that it determines to integrate certain management systems defined by individual standards.

Table 2: Number of certificates to ISO management standards (ISO 9001 and ISO 14001) in region

Country	ISO 9001	ISO 14001
Bosnia and Herzegovina	1.027	145
Montenegro	96	15
Croatia	2.048	575
Macedonia	302	103
Slovenia	1.363	313
Serbia	2.831	575

Source: *ISO Survey of certification 2012 – Industrial sector*, ISO, 2013., www.iso.org

Disregarding the growing trend in the number of organizations which introduced quality management system and development of quality movement in domestic economy, overall results are still under the satisfactory level. The majority of companies which introduced quality management system belong to the group of large companies.

Ethical principles in business are still developing in the majority of domestic companies, and few companies actively apply corporate social responsibility concept. The exception is those domestic companies which have been privatized by foreign corporations. Corporate social responsibility is not developed in domestic private companies, where native private capital dominates. In public companies, the principles of corporate ethics are applied declaratively – in majority of public companies there are codes of business conduct, which are applied inadequately, or are not applied at all. Aiming at better promotion of CSR concept, the Open Society Fund, Smart Collective and Serbian Chamber of Economy have launched a project titled “Responsible Business Initiative-RBI” with a view to induce and institutionalize the concept of social responsibility of companies in Serbia. For the first time, in March 2008, Serbian Chamber of Economy has given awards for CSR

The major problems of domestic companies are : business based on outdated management principles, inertia and lack of capability to adjust to the market changes, failure to accept integral management concept, failure to accept marketing logic, inadequate treatment of investing in knowledge, failure to acknowledge foreign experiences. One of certainly most important problems of domestic economy, which significantly causes the poor international market entry of our companies, is the inadequate use of knowledge, which primarily implies knowledge necessary for efficient company management.

Modern understanding of competitiveness implies constant struggle for work and knowledge productivity improvement. The main streams of action in the field of education of domestic managers should be:

- Education for new operation conditions, based on market mechanism, private property and productivity as a factor of competitiveness,
- Promotion of new concept – necessity of struggle for productivity, as basis for survival on market, market development and development of specific companies,
- Permanent learning from experience of others – continuous application of benchmarking with a view to achieve business excellence.
- Application of corporate social responsibility concept in domestic companies - setting up of conditions for more successful market entry and achieving competitive capability of domestic companies.

These streams of strategy focusing certainly are long-term, therefore their results should also be regarded as such – positive results in short term cannot be expected, nor can be expected the positive results from periodical and sporadic actions.

CONCLUSION

Corporate social responsibility is one of the pillars of business excellence of an organization. The other two pillars, meeting customers' needs and improvement of business productivity, can generate profit, but without application of social responsibility principle, there can be no business excellence. Application of corporate social responsibility concept in domestic companies should enable setting up the conditions for more successful market entry and achieving competitive capability of domestic companies. Institutions are one of the key elements in the process of creating adequate atmosphere for application of corporate social responsibility. Stable institutions represent basis for further development of other elements which constitute an atmosphere, such as: regulations and strategies, and process participants (companies, NGOs and local self government). Application of ethic codes of conduct, both by different associations and chamber system, and by specific business entities, should contribute to the development of competitive relations in economy and improvement of competitive climate.

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ESTABLISHMENT OF QUALITY MANAGEMENT IN HIGHER EDUCATION

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ABSTRACT

The role of higher education is of great importance to the socio - economic development of each country and the acquisition and competitive advantage in the knowledge-based global economy. Higher education institutions are faced with many constraints and challenges, including resource shortages to poor management, lack of autonomy, without a culture of quality, poor human resource development and the like. However, it is essential that institutions of higher education establish a formal quality management system.

Key words: system quality, quality management, quality management, internal control

INTRODUCTION

The task of any educational institution in Serbia and abroad to achieve and maintain the highest possible level of quality education (Medić, S., Popović, K., & Milanović, M. (2009) . In order to integrate into the European educational space , higher education institutions are required to meet certain quality standards . The term " quality of study programs and teaching " , or just " quality " is considered the compliance of higher education (results , processes and systems) with the needs of customer requirements , objectives , norms and standards Kohoutek, J. (2009). To achieve and maintain the highest possible standard of a higher education institution is required constant communication between all participants.

In accordance with the new Law on Higher Education in Serbia Nestić, S., Stefanović, M., Tadić, D., Đorđević, A., Arsovski, S., & Stojanović, S. (1995). Following the scientific council of the Faculty of Engineering Sciences is 2005th year ruled the Education Center for monitoring , securing , improving and developing the quality of academic programs , teaching and scientific - research (Center for Quality Control - CQM) , whose task is to work on raising the quality of all activities at the Faculty of Stefanović, M., Tadić, D.(1995).

The establishment of quality systems at the University also improves confidence of students, as well as whether it meets their requirements for quality. The measurement of service quality from the perspective of students, higher education institutions will be able to improve their service delivery processes, which will help create customer loyalty and build long-term competitive advantage.

Access to this study is to document and analyze the question, structure and process quality management in higher education and to apply this analysis to the context of higher education institutions, with the aim of developing a framework for the management of high-quality educational institutions in Serbia.

QUALITY MANAGEMENT IN HIGHER EDUCATION

Quality Management System (Quality Management System - QMS) is a set of interrelated or interacting elements for the establishment and achievement of defined quality policy and objectives of the organization, which from the standpoint of quality, leading organizations and operated. It is a practical set of rules, processes and procedures (procedures) necessary for the planning and execution (production / development / service) in the main activities of the organization (that is the area that could affect the organization's ability to meet the demands of users / services). Jenner, M. G. John Wiley & Sons (1995). On one side is the perception of the quality of service providers, and on the other the perception of the quality of its user. The subjective component of determining the quality is directly related to the perception of quality Starčević, D., & Avramović, (2003).

The introduction of a quality management system is recommended by stages. The first phase of the Quality Management System consists of a simple, basic and general quality element in order to establish a culture of quality in academic thinking and ideals permeate quality management program throughout the life of the university. The second phase of the Quality Management System consists of wider and larger elements of quality, such as benchmarking, student attributes, and frame, closely linking the system to manage internal and external quality control, regular requirements to ensure consistency in the quality of graduates across the higher education sector, as well as achieving national, rational and international recognition.

Model of quality management is an important contribution to improving checked and reshaping and practice in higher education, as well as informing future key partners and policy makers of higher education on quality management in Serbia. Universities have publicly responded to his work in education and research, and therefore most of them already have some sort of quality assurance. The purpose of quality assurance in academia is to provide confidence to students and interested parties that the demands for quality education and research are constantly met. One way to address the growing need for quality assurance is global to design, implement and maintain a quality system, and a set of conditions for which a university or a service organization should be supported in order to register its quality system. Standards provide an opportunity for streamlining operations, identifying, correcting and preventing quality problems, as well as improving the quality of the system by means of internal audit and quality checks various statistical techniques.

ISO 9001:2008 in Higher Education

Standard ISO 9001:2008 specifies requirements for a quality management system where an organization needs to demonstrate its ability to consistently provide a product or service that meets customer requirements in the spirit of laws and regulations, in order to increase customer satisfaction with products and services and demonstrate compliance with customer needs and relevant regulations.

To the Faculty of Engineering Sciences ensure the quality of its services, must identify the process and establish a documented system that complies with the requirements of ISO 9001:2008. A brief overview of the content of ISO 9001:2008:

1. Range (explanation and application of standard);
2. Normative references (literature and other documents quality management systems - Fundamentals and vocabulary);
3. Terms and definitions of terms used in the standard;
4. General requirements for the overall system of quality management;
5. Liability Management (requirements management to quality management system);
6. Resource Management (requests for resources, personnel, equipment, work environment);
7. Product realization (planning, procurement, related processes, process control);
8. Measurement, analysis and improvement (requirements for process monitoring and process improvement).

ISO 9001:2008 has become firmly entrenched as the globally accepted standard that ensures the safety and quality of service users in relations service / user. For the Faculty of Engineering Science-FIN, the goal is to obtain ISO certification means improving work faster and more efficient services FIN, as an

educational institution. Certification is the process of determining the FIN and services that it provides meets the requirements of the standard. The process ends with an official certificate - certificate of conformity and registration FIN-and, as the holder of the certificate of registry.

Standards imply procedures that are performed in the work FIN, a description of the exact sequence of actions for the implementation of procedures and individually describe each of them. The municipal administration of this means greater efficiency, accuracy, responsibility, kindness, respect deadlines, confidence, resulting in a benefit and satisfaction of students - service users. Quality Management System in FIN includes organizational structure, procedures, processes and resources. Established in a manner to prevent inconsistency of the process and we are constantly striving to improve all phases of providing customer service. In addition to the willingness of management to FIN introduction of quality systems, quality preparation represents one of the most important processes of certifying its feet and a key prerequisite for meeting the standard. To control the functioning of the quality management system, monitoring its effects and analysis of the situation, as well as finding opportunities for improving the use of internal audit

The system of internal control

Internal control is a process that can contrive a daily basis, based on the defined task management, in order to achieve the mission, vision and goals of the business enterprise. Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal control is defined as "a process, established and governed by the board of the company, management and other personnel, and their aim is to provide a reasonable belief regarding the achievement of objectives in the following categories: efficiency and successful operations, compliance with existing laws and regulations and the protection of assets from unauthorized appropriation, use or disposal Stanišić, N. M., Popovčić-Avrić, S. D., Mizdravković, V. M., & Djenić, M. M. (2013). Thanks to the implementation of internal control can be achieved effectively and efficiently business. Efficient operations mean standardized processes and business activities in good operating conditions, in order to prevent unplanned expenses incurred due to fraud, fraud, losses or irrational spending in certain phases of the business.

Internal controls can be considered from the perspective of the time of application as a:

- preventive internal controls - that would be before or at the beginning of operations detect abnormalities
- current internal control - performed during the business processes and events, examining the business records
- subsequent internal control - performed after completion of the business process or event, with the aim of looking at vulnerabilities and identifying errors and fraud.

The system of internal controls in the company 's business consists of several elements:

- The control environment
- Control activities
- risk assessment,
- information and communication, as well as
- Monitoring and follow-up (monitoring).

ANALYSIS OF RESEARCH IN HIGHER EDUCATION

Empirical research on the role of internal control in the higher education institution is currently underway and is conducted through a questionnaire. Survey referral are delivered in person to students, as well as an anonymous survey. The purpose of this study is to contribute to the development of teacher education, profiling measures comparing teaching The plan covers the initial teacher education.

The aim was to analyze and compare studies in science education as part of the education program with classes through the development of sufficiently universal target structure. The written curriculum underwent a content analysis based disciplinary panel, which covers the main elements of the curriculum and the content of theoretical studies in scientific education.

Summary of the participation in the survey gives a clear picture that in the following analysis research will be guided by the attitudes of management and business level institutions: The aim of this survey was 3 years ago and to this day is the comparability of the answers to the questions based on "Knowing the principles of the Bologna Declaration?" The aim of this survey three years ago and to this day is comparable to the responses to the questions "Knowledge of the principles of the Bologna Declaration?" The survey was conducted during the period of the winter semester to all students from 1 to 4 years, and in all directions at the Faculty of Engineering Sciences in Kragujevac. In survey mention two questions of this question is related to the system of knowledge of the principles of the Bologna Declaration. This way the students responded 2011. and in 2014.

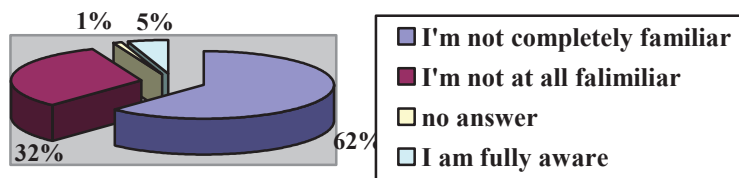


Figure 1: Knowledge of the principles of the Bologna Declaration in 2011

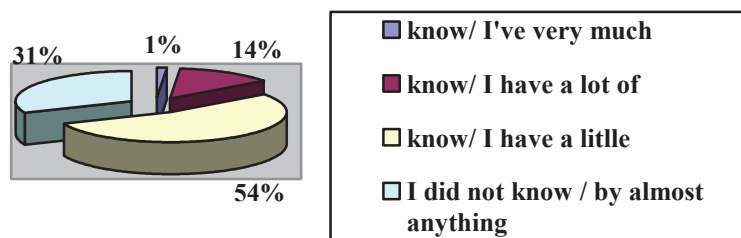


Figure 2: Knowledge of the principles of the Bologna Declaration in 2014

In accordance with the results of research based on one of the available survey questions Faculty of Engineering Sciences comparative analysis came to the conclusion that students are either "generally familiar" with the Bologna process, or "not fully aware" of the Bologna process. In addition to the three year since the last survey changed nothing, except that it has increased the percentage of students who "are not at all familiar" with the principles of the Bologna Declaration. The task of research is to examine the current situation and the implementation of internal controls in the business of higher education institutions.

Analyzing survey we received responses to questions about the current position of the respondents in the organization, and the study participants were 15% lower management, middle management, 15%, 15% of top management, 41% of CQM (Centre for Quality) and 14% of the director. Figure 3 Presenting research results to the question: "Who controls in your institution?"

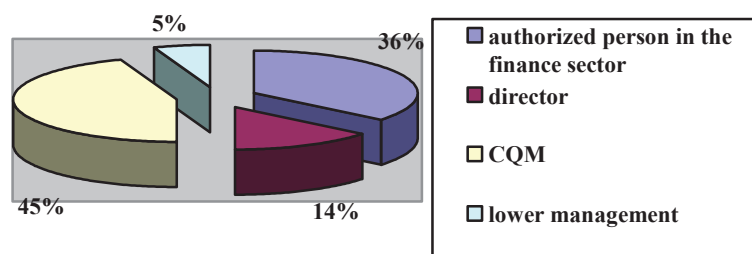


Figure 3: Organizational structures that perform internal control

Internal controls in the business of higher education institutions, companies applied to service processes. To the question: "At what stage of business apply control processes in your school?" Results suggest that commonly used in the following stages:

Table 1 Structure of the business stage where applicable internal controls

Stages operations involving the use of control processes in the higher education institution?	Participation
The stage production processes	16%
At the stage of the service process	21%
The activities	28%
The phase control costs of school operations	35%
Total:	100%

Past results of the survey show that 77% of participants included in the system of internal control, and 33% are not included. In 54% of the respondents were partially satisfied by applying internal controls in their companies, 8% of participants were satisfied with the application of internal controls, and 38% were satisfied with the application of internal controls.

IMPLEMENTATION OF QUALITY SYSTEMS

The aim of the introduced Quality Management System of the Faculty of Engineering Sciences is creating a systematic approach to business management that is based on documented and publicly declared policy of quality, set targets of quality, transparent organization and responsibilities, process approach, managed resources and good communication, and continuous evaluation and improvements of quality management .

Quality Policy at the Faculty of Engineering Science

Department of Engineering Science with great care and attention focuses on the provision of services under the principle of equal rights and dignity of every student. Accordingly, its work is directed towards providing efficient services. The basic tenets of quality policy are that all employees in the student service their efficient and dedicated work, optimal use of resources entrusted, communicative, friendly behavior and openness to the initiatives of students, ensuring continuous improvement of service quality administration. The strategic objective of the Faculty of Engineering Science is to fully provide quality service to students, and other subjects, giving them more than the required or expected, stressing that this institution is always in the service of all its students. Top management reviews the quality policy every six months, as part of the review of the quality management system.

Process approach to quality management

The process approach to quality management in higher education institution recognized as a way to provide services to students and other users. In addition to managing the process (liability management) and support processes (resource management) are defined by the main processes to provide services that are constantly analyzed and measures poboljšavaju. Management of the Faculty of Engineering Science / student services define, implement and improve the system of quality management through: continuous introduction of employees on the importance of meeting the demands of students, laws and regulations, establish policy and quality objectives, translating assessment of quality management system by the management and security resources.

Human resources

The human resource is the concern of the planning engagement, training, developing consciousness (policy and quality objectives, motivating, using the codes of professional conduct associates), by providing the resources to operate and suitable working conditions. For each job is allocated to employees who meets the requirements of workplace. In accordance with the quality policy and quality objectives, programs, projects, newspaper at the university of Engineering Science, changes in directions / cases, improvements, legal provisions, identify the training needs and training of personnel.

Customer Satisfaction

Through quality management system promotes customer satisfaction and all processes at the Faculty of Engineering Science are kept under control. With the aim of enhancing customer satisfaction student services, implement procedures: customer satisfaction survey and review of the quality management system.

Continuous Quality Improvement

The effectiveness and efficiency of the quality management system is continually improving application quality policy, quality objectives, corrective and preventive measures and review of quality management system by top management. In accordance with that top management reviews and builds up the quality and goals. Student Services encourages the personnel at all levels to provide ideas for improving services, processes, systems and relationship to the work environment.

CONCLUSION

If the educational institution wants to persevere and achieve their goals is inevitable application of internal control for the purposes of prevention activities, as well as corrective. Internal control is important for both the management and the owners and staff of the company. It is a process in which investigates procedures and operations phases, observed irregularities and fraud and thus prevent further bad business steps that lead to bad results. The system of internal control is necessary to constantly monitor and harmonize with the business policy of the company, as well as the achieved business results.

The principal role of higher education institutions is a high quality service of students and other users of its services. Therefore, it is necessary to introduce and continually improving the quality management system in higher education institutions. The main objective to be pursued by establishing requirements of ISO 9000 standards in higher education institution means the fulfillment of requirements and expectations of its customers: students (through a satisfactory quality of service), employees (through job satisfaction and career), businesses (through favorable business environment), suppliers (through long-term business relationships), society (through responsible behavior and actions, environmental protection).

Satisfactory quality and speed resolution of claims, availability of information, transparency and respect for the principle of legality, directly affecting the economic progress of the community, the overall prosperity of society and the standard of living of citizens. A good example of this approach can be given only by introducing quality management systems.

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SERVICE QUALITY IMPROVEMENT AS A PRECONDITION FOR BUSINESS EXCELLENCE OF COMPANIES IN TRANSPORT SECTOR

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ABSTRACT

This paper deals with the consumer satisfaction as an important factor of traffic companies business excellence. Due to global competition and wide choice possibilities offered to customers, traffic companies have to change their attitudes towards them in order to improve quality of their services. The important part of business processes improvement today is connected with the need of traffic sector to increase energy efficiency and low carbon emissions and negative effects on environment. Modern ICT solutions and applications contribute to ecology responsible business processes of traffic companies and in the same time enable them to offer more accurate high quality services. Domestic traffic companies are not yet prepared to accept and implement modern business practices harming in this way to their business excellence and contributing to lower level of their competitiveness.

Key words: customer satisfaction, business excellence, quality, competitiveness, green ICT

INTRODUCTION

On the world stage is the process of globalization, with a tendency of further attendance and the growing interdependence between the economy, the industry and markets in an increasingly intense and constantly changing competition. Success in the world is increasingly defined as the ability and the speed with which a company, industry or service sector (or economy and society as a whole) innovate and become more productive. At the same time, innovation and productivity are related to the acceptance and application of new technological applications, especially in the field of information and communication technologies (ICT), organizational transformation and human resource structure that is based on an educated workforce.

With the above challenges facing the transport sector, and whether the analysis is done on a global, regional (EU) or the level of the national economy (Serbia). Strategies work and development of the transport sector today are increasingly abandoning classical solutions for individual modes of transport at the expense of the development of an integrated transport network that favors the transport of less harmful to the environment and stimulate the redistribution between različitih forms of transportation. This presupposes the development and introduction of new technologies traffic management, development of dynamic databases and user awareness, development and application of new technologies, such as satellite positioning and navigation systems. All of this, should be complementary physical infrastructure, which is a prerequisite to ensure the optimal use of transport networks. In this context, there is no longer the network of roads, railways, rivers, canals, sea routes, air corridors, but the individual networks that together form an integrated transport network (MTOE). Transport Telematics is the foundation that allows this hypothetical, integrated transport network to be optimally used.

TRANSPORT SECTOR AND ITS CHARACTERISTICS

Transport and communication are essential human needs. Without it today it would be unthinkable the functioning of human community. Transport occurs as a result of transport and it is visible. Economic growth influences the increase various types of activities, so the the needs for transport and thereby increase. The thesis that modern communication reduces the need for conventional modes of transport is only partially true.

Modern communication is essentially substitute for some movements. They also allow people to better plan their time more efficiently and use. This usually means that enabled increased activity during the day, which in turn affects the increase of mobility. Analysis of the position of the transport sector in the global business environment requires distinguishing three target segments of the transport and setting saobraćajane policy: local traffic, originally-targeted traffic and transit traffic (UNDP, 2008).

One of the key tasks of a state is first of all to harmonize the transport system within the country and develop the transport system which will enable high quality of local movement and similar quality in terms of access and links within the given territory, thus enabling a more balanced growth of all parts of the territory.

The second layer of traffic depends on the relations between the territory and its surroundings. This type of movement depends on the economic integration between the country and its closer and more distant surroundings, trade, tourism and other scopes of transport. This kind of movement also depends on the level of development of transport infrastructure which can service this kind of movement.

Local movement depends on the size of the territory relying predominantly on road and railroad infrastructure. Movement abroad, apart form road and railway infrastructure, rely also on airborne traffic (regional and distant). Transit movement in terms of distant passenger movement is turning increasingly to airborne traffic, and in terms of transport of goods to inter-modal transport.

CONCEPT OF QUALITY OF TRANSPORT SERVICES

In today's competitive environment, companies that want to survive must strive to improve their products and services. The concept of quality in traffic has been in practice for long, and transportation companies focussed receipts of services to the following performance: speed of transport, the price of transport, frequencies and availability. However, development of the transport market, as well as changes in the society, had lead to the realization that significant elements of the quality of transport services are road safety and traffic effects on the environment. The first element, traffic safety is more and more prominent in the European Union which provides significant support for altertnativni forms of transportation and programs that reduce pollution (Marco Polo), but also to the types of traffic that have a lower negative impact on the environment, such as river traffic.

It is believed that the use of ICT in transport can support the development of green and sustainable transport infrastructure in three ways (IISD, 2010):

1. by decreasing *direct effects of transport sector* on the environment through improved energy and materials efficiency, increased use of renewable energy sources, reduced use of toxic materials and improved recycling and end-of life disposal of used transport equipment;
2. by increasing the *enabling effects* of ICTs on the development of the green economy through improvements in the efficiency of production, distribution and consumption of transport services by reducing demand for energy and materials through the whole or partial

- substitution of virtual products and services for their physical equivalents; and through the dematerialization of human activities and interactions;
3. by supporting *systemic effects* that result in the transformation of behavior, attitudes and values of individuals as citizens and consumers; economic and social structures; and governance processes.

Rationalisation of transport is an important area of ICT in order to increase energy efficiency. Transport systems represent about 26% of energy end-use in the EU. Many opportunities exist for improvements in energy efficiency and rationalization, notably through logistics. The focus is on the deployment of ICT to promote modal shift, notably on transport corridors for freight, and through the provision of multi-modal journey planners for passengers to enable significant reductions in congestion and savings (European Commission, 2009).

MAIN CHARACTERISTICS OF CUSTOMER SATISFACTION OF TRANSPORT SERVICES

User satisfaction is a key element for the survival of the enterprise on the market. Free competition in the transport market, requires from the companies in this sector intensive and continuous work on the creation of promotional activities that will attract new potential customers. On the other hand, more and more choices of transportation services of bidders from around the world imposed traffic companies need to devote special attention to existing customers as it becomes very important to preserve them and make them loyal. with that achieved, follows the battle for new customers which is always more expensive since it must get and converted those customers to the status of the service user.

Transport companies that want to improve their relationship with existing and to attract potential customers, need to constantly communicate with them. This is achieved by measuring customer satisfaction via surveys whose results indicate the degree of satisfaction of users of transport services.

For example, "*World Award airline companies*" based on the Report of the world's airline company, which was created by the British company Skytrax, it can be seen how important is customer satisfaction and providing of quality transportation service. The quality of transport service is not just a period of flight, but the period of arrival to the airport, taking flights, baggage delivery, friendliness of the staff at the airport, the flight flow (engagement of staff in the body) and at the end of period baggage at the airport (the involvement of staff in airport). Airline companies that have failed to better communicate with customers on the market, failed to achieve a sufficient level of profit and had to go bankrupt. They have been inherited by the airline companies that have managed to find new ways to communicate, such as Internet use and thus better tailor their services for the customers, by increasing transport volume and profit.

European Commission dealt with the issue of user satisfaction of transport services through the analytical report "*Research on the satisfaction of passenger services by rail transport*". In this survey, respondents were asked about satisfaction with various features of railway services, including train. This study showed the frequency of use of rail transport services in different EU member states. According to the survey respondents highest full pleaded train uses less than once in month and this percentage ranges from 53% in the Czech Republic to 88% in Spain. However, one should not neglect the country with a high frequency of passenger rail transportation, such as Latvia, Slovenia and the three Benelux countries.

When talking about the satisfaction of railway passengers respondents on different characteristics of railway stations from the available characteristics, there are three with which passengers are most satisfied (Flash EB, 2011): the ease of purchasing tickets 79% (very - 47% , rather - 32%);

provided information about the schedule of trains and platforms 76% (very - 23% , pretty - 53%) and personal security at the train station (77% very - 22% , pretty - 55%).

Apart from the station service, for passengers satisfaction it also important the contribution of the quality of railway services and features of trains. Due to increase in demand of passengers, comfort and convenience must be improved, but also the speed of trains. The survey found that users are most satisfied (PTT Official Gazette, 2010) with: personal safety level in trains 82% (very - 25%, pretty - 57%); length of travel time (commercial fibrin/traveling speed train) 78% (very - 22%, pretty - 56%) and the comfort of sitting 78% (very - 20%, pretty - 58%).

When talking about the quality of railway services, 47.3% of respondents are quite satisfied with the quality of facilities and services , versus 22% of those who are quite unhappy. When you look at the structure of the sample it can be seen that groupe of quite satisfied with the quality of content and service are surveyed persons from 25-39 years of age (51.3%), living in urban (47.1%) and rural (48.8%) field. When looking at a sample of respondents who are not satisfied with the quality of content and services (22%) it shows that the most represented are the young generation 15-24 years (27.1%), living in urban (22.3%) and urban (22.9%) regions (PTT Official Gazette, 2010).

Research of the European Commission has shown that the EU transport market in the area of passenger rail traffic is not on the same level of development, and that in some countries there is still insufficiently developed awareness of the need to adapt to the demands of passengers and a new form of business , where customer satisfaction foregrounds. Analysis by the member states of the European Union (EU) that participated in this study showed that users are from Finland (59%), Spain (57.6%), France (56.8%), Portugal (56.6%) and Sweden (56.5%) are quite satisfied with the quality of facilities and services offered by the railway passenger traffic . On the contrary, people in Poland (35.1%), Slovakia (34.1%) and the Czech Republic (33.8%) are quite unhappy with the quality of facilities and services of railways (PTT Official Gazette, 2010).

QUALITY OF TRANSPORT SERVICES IN DOMESTIC COMPANIES

Issue of customer satisfaction with traffic services stays still with inadequate attention from domestic enterprises. The reason for this lies in the fact that many companies are still in a monopoly position, and they do not have a great need to think about customer satisfaction. Also, for years there were wrong and under-investment in some domestic companies such as Serbian Railways and JAT and the result is a big, dysfunctional and uncompetitive systems with which the state does not know what to do.

However, in areas where there has been a liberalization of the market, domestic enterprises have shown high interest to the user. As a result, these companies, such as Telekom Srbija to PTT Serbia, are becoming a competitive, both on the domestic and regional market and are ready for new investment and the development of new services (Bogetić et al, 2013).

Telekom Serbia has realized in the right moment the importance of customer satisfaction and thus successfully prepared for a period of market liberalization in the telecommunications field. This company, in spite of a dominant position in one area of business (fixed telephony) decided that key elements of their business policy are the customer and its pleasure. That is the purpose of setting up this issue at the highest level within its organizational structure created in the Directorate for Commercial jobs four functions: The function for marketing and sales, service management function, the function for customer care and the wholesale and multimedia. All functions have the same goal - to create satisfied and loyal customers, with the desire to turn them into profitable customers. Profitable customer means a person, household or company whose revenues over time exceed the costs that the company spent for attracting, selling and serving that customer.

In order to get closer to its customers, recognize their needs better and respond to those needs in the best possible way, as a priority task Telecom joined segmenting users in relation to the services they intended. As part of the Department of Commercial Affairs, functions for sales and marketing Telekom organized: Sector for residential customers, Sector sales business customers and sell additional services sector. Successful segmentation and personalization of services Telekom based on the introduction of CRM (customer relationship management) technology management relationships with consumers. CRM integrates all the information that the sales , service and marketing teams know about consumers in order to get the whole view of the relationship with the consumer, assess the value of individual consumer, identifying those to whom it is best to target. Telekom Srbija performs all activities related to CRM within the Department of Marketing, Customer Service CRM, the Division of IT development and integration and CRM service support.

Besides Telecom, public company PTT Srbija has also taken several years ago extra activity in order to improve their business with the help of "Methodologies for monitoring the quality of the postal service." According to the methodology the quality of postal services is determined on the valuation base satisfying the following criteria (PTT Official Gazette, 2010): the availability of postal services; speed and reliability of the transmission of shipments; security of shipments; efficiency in resolving complaints; satisfaction and awareness of service users; level of standardization; typification and organizational climate and employee motivation.

Measuring customer satisfaction with traffic services for JP PTT Serbia is one of the key elements in the process of achieving continuous improvement of the quality of the business. Thanks to the information obtained from users who were previously analyzed, companies can measure and monitor customer satisfaction with services. The information provided by the user includes the following segments (PTT Official Gazette, 2010): research and market needs depending on the type of user, the analysis of user expectations before using the postal service, measuring the level of satisfaction after the use of postal services.

Table 1: Average level of service user satisfaction in 2010 and 2013.

Service Parameters	2010	2011	2013
Reliability	4,46	4,62	4,75
Speed	4,33	4,56	4,77
The range of services	4,37	4,50	4,58
Price	3,69	3,84	4,08
Manner of Service	4,28	4,41	4,58

*Source: Report on the condition of the quality on Postal Traffic in 2010 and 2011.
www.posta.rs, p. 18:19*

Table 1 shows a comparison of data for the period 2010-2013 year, in the mean grade of satisfaction of service users. According to the methodology adopted by JP PTT Srbija degree of satisfaction with the service user is satisfactory if the average score of greater than 3.75 in the situation when evaluating range from 1 to 5. Analysis showed that in this period the degree of satisfaction of users of postal services has also grown. The overall average evaluation of customer satisfaction in the 2010th was 4.20, and in the 2011.- 4.36, which is for 0,61 higher than the minimum prescribed level of satisfaction of users of postal services (3.75).

The survey also dealt with ranking of Serbian Post in several parameters: the trust and reliability, variety of services, quality and modernity (Table 2). Fortified growth of all monitored parameters shows the tendency of PTT company to work on continuous improvement of the quality of its services and the improvement of its business.

Among other things, testing followed user satisfaction with the availability of mail and postal box. It has also analyzed prices as well as the speed and security of the transmission of postal shipments. In both areas of research, parameters showed generally rising trend which confirms that the PTT

identified key areas in which they need to act and build satisfaction and trust of its users (Tables 3 and 4).

Table 2: Ranking of Serbian Post

Service Parameters	2010	2011	2012	2013
Trust and reliability	4,46	4,49	4,55	4,55
The diversity of services	4,37	4,50	4,57	4,58
Quality	4,28	4,31	4,37	4,45
Modernity	3,98	4,04	4,13	4,24
Mean average value	4,27	4,34	4,40	4,46

Source: Report on the condition of the quality on Postal Traffic for the 2011, www.posta.rs, p. 19

Table 3: Satisfaction with availability

Service Parameters	2010	2011	2012	2013
Post offices	4,52	4,48	4,50	4,50
Mailbox	4,00	4,22	4,36	4,37
Post offices locations	4,38	4,41	4,50	4,50
Mean average value	4,30	4,37	4,46	4,46

Source: Report on the condition of the quality on Postal Traffic for the 2011th year, www.posta.rs, p. 19

As can be seen in Table 4 there is growth in almost all the parameters that were evaluated in the survey, even the security of sent shipments, which had a decline in 2011, in the the next two years improved.

Table 4: Empirically ranking of Serbian Post

Aspects	2010	2011	2012	2013
Prices of postal services	3,69	4,48	3,82	4,08
Security of sent shipments	4,46	4,22	4,67	4,75
Deadlines transmission (speed)	4,33	4,41	4,65	4,77
Mean average value	4,16	4,37	4,38	4,53

Source: Report on the condition of the quality on Postal Traffic for the 2011th year, www.posta.rs, p. 19

Surveyed users of postal services had the opportunity to evaluate their Post office and data for all four years in almost all parameters were good. However, what constitutes a problem for users of postal services is inefficient resolving of complaints, which represents longtime problem. The mean average value is greater each year than the previous, but there are disadvantages that must be corrected.

CONCLUSION

In today's competitive environment, companies that want to survive have to strive to improve their products and services. If as a means for defining fields improvement using results from customer satisfaction surveys, it is expected that the results will improve to be more in line with the requirements of the user. The company must understand the expectations and preferences of their customers , and use them as a guide to achieve competitive advantage (Kostić, 2010).

Traffic is a specific activity that is unlike other activities and has a different view on the quality of service provided. That is, the quality of traffic service is hardly quantifiable and it is impossible to test it before using, which shows that the quality of this service is highly and extremely complex. The literature in the field of traffic on the quality of traffic service usually involves the following: " ... as a set of commercial and technical activities as a whole should provide satisfy users' demands, reflecting the quality of the simultaneous processes of work in the production of these services,

which requires permanent control of all processes and continually improving the organization and functioning of the system" (Kostadinović, 2008).

That customer satisfaction represents the precondition for successful operation of enterprises from the traffic sector, is best confirmed by the activities of these companies in the EU, where customer satisfaction is regularly monitored and based on the results work of companies is changing. Domestic traffic enterprises still do not pay enough attention to customers and their satisfaction, as the monopoly position of some traffic systems so far allowed. The companies that experienced the conditions of market liberalization were first to realize that competition brings serious challenges and that local traffic companies must set focus of their businesses to customer satisfaction first. Activities of Telekom Serbia are an excellent example of this change in management companies that by usage of CRM technology it can know its users better and effectively manage relationships with them. Also, a public company Post Serbia has through the adoption of "Methodologies for monitoring the quality of the postal service", impacted and improved the quality of service provided to users. In this way, the company has shown that customer care and quality of service offered, is their strategic goal. In fact, thanks to used methodology, JP PTT Srbija for four years measured customer satisfaction traffic services in order to achieve continuous quality improvement of its business. Based on the data obtained from this research firm has received the parameters on which basis boost the labor process and improved customer satisfaction with services.

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STRATEGY OF MANAGING FINANCIAL RESOURCES

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ABSTRACT

Managing financial resources (cash) in a company represents especially significant and sensitive task of financial managers. In the process, the sensitivity and complexity of managing financial resources is conditioned by the need of constant balancing between two basic financing principles – profit principle and liquidity principle. This balancing, as a matter of fact, comes to the requirement for establishing and maintaining optimal balance of cash at any moment. Contemporary economic practice shows that even the most liquid and the most profitable companies are short of financial resources. In such situations, the management of the company has to find new sources of financial resources and also at the most favourable conditions. On the contrary, in the conditions of financial resources surplus, the task of the management is to find out opportunities for a short-term investment of cash at satisfactory profit and maximal security of return of financial resources. The aim of this paper is to point to the complexity of some aspects of the financial resources management process in company.

Key words: strategy, managing, resources, cash, company.

INTRODUCTION

From the aspect of management of financial resources or cash management, a company has an urgent need to adhere to two basic principles, namely : the principle of profitability and the principle of liquidity. Respecting the principle of profitability, the main concern of the company is to achieve maximum results with minimal investment, which is the main motive of business. On the other hand, a successful performance of the company and keeping the company in its environment, imposes the obligation to provide continuous liquidity, i.e. the performance of obligations in a timely and complete manner. Bearing in mind that management of financial resources is a very dynamic process, it is not surprising that the company is often tempted to give an advantage to one financial principle over another, especially as the principle of profitability and the principle of liquidity are in mutual conflict. Thus, the effective management of financial resources or cash becomes extremely important and sensitive task of managing the company's finances, given that it puts into the focus the balancing between the two basic principles of finance - the principles of profitability and the principle of liquidity of the company. This balancing, as a matter of fact, comes to the requirement for establishing and maintaining an optimal balance of cash at any moment. In addition, any surplus cash above the level of requirement has an impact on reducing profitability, while any cash deficit below the level of requirement, directly threatens the solvency of the company, i.e. the ability to pay due obligations.

Previous practice shows that even the most liquid and the most profitable companies are often short of financial resources. In such situations, the management of the company has an obligation to find new sources of financing, in the shortest possible time and also under the most favourable price (interest rate). However, one should bear in mind that it is very difficult to find short-term financial resources for the maintenance of liquidity in the moment when the company needs them. Also, it is very risky to withdraw the excess of short-term invested cash within the situation of general insolvency. Hence,

theoretical and practical experience suggests that it is possible to find a solution to the liquidity that will not threaten the profitability of the company, only provided that there are stable partners, the company and the bank. More precisely, the movement of interests of the principle of profitability and the principle of liquidity could be implemented according to a model that would enable the company and a commercial bank to solve together the difference between the daily inflows and outflows. In fact, at a time when the inflow of financial resources is smaller than outflow, the difference would be covered from the financial resources of a commercial bank. Conversely, at a time when the inflow is bigger than the outflow of financial resources, the company would pay the difference to an account of a commercial bank. In this way, the company would open with a business bank the so-called open account (business operations on the principle of the current account), which would be in the red or in the black, depending on whether the company pays the excess funds to their commercial bank or the commercial bank has to intervene in the area of coverage of liabilities of the company. In addition, the financial activity of enterprises and commercial banks would be measured through active and passive balance on the open accounts and calculated lending and deposit interests at an agreed interest rate, which would be paid by a net debtor at the end of the year.

CASH CYCLE

Cash management requires knowledge of some important features of cash. In fact, a good knowledge and understanding of all the important features of cash allows, taking into account their impact on decisions within the scope of cash management, to better contribute to the success of business operations of a company, in terms of the maximum profitability within its continuous current solvency i.e. liquidity. Similar to other forms of working capital, the circulation of cash through the process of business operations of an enterprise can be measured and expressed by the average duration of one turnover called the cash cycle. In addition, the cash cycle is generally defined as the number of days in a year that have elapsed since the issuance of cash for the purchase of raw materials to the point of receiving cash as payment of proceeds from the sale of finished products in which the purchase value of raw materials is realistically contained. More precisely, the cash cycle indicates the length of time from issuance of financial resources for the purchase of raw materials, to the payment of sold goods or services. In addition, there are significant differences in the length of the cycle from the time of acquisition of assets to the time of collection of receivables from sold goods or services, when the fixed assets or working capital are in question. Duration of the cash cycle for the purchase of *fixed assets* begins with payment for their purchases, and ends after the collection of revenue, and at the end of useful life of the asset. Thus, the cycle of engagement of financial resources in fixed assets last as long as depreciation of the said business asset. Therefore, engaging cash for the purchase of fixed assets is less common, while the collection of thus engaged financial resources is long lasting and successive.

Duration of the cash cycle for the supply of *working capital* begins with their purchase and ends with the sale and collection of finished goods and merchandise. In addition, in order to calculate a cash cycle it is necessary to have good quality information on stocks, clients and suppliers. Stocks as part of the real assets of the company change in the physical form, while investing in the stocks, observed financially, is continuous and relatively constant. Financial investment in accounts receivable is a reality due to the time interval between the act of sale and the act of collection of receivables. Financial investments of this type would not be present if the company paid raw materials and supplies at the takeover, and charged the finished products at the time of sale. Practical experience shows that it is not so, but that the supplier (seller) credits his customers. Hence, the company is often in the role of the buyer (debtor) and the seller (creditor). In cases where a company purchases raw materials and supplies, it is the client who is credited by his suppliers. In cases where the company sells the finished products, it is the seller (supplier) who credits his clients.

Based on the above, it can be concluded that the company is in two basic positions. Firstly, when purchasing raw materials, then it is the buyer and as such is credited by the supplier. Secondly, when it sells finished products then it changes its role to the seller (supplier) and finds itself in the position of the client's creditor. Accordingly, in the cash cycle from the sale and payment of raw materials to the sale and collection of finished products, there are three main factors which are essential: stocks, clients and suppliers, which may be graphically illustrated as shown in Figure 1.

the mobilization of short-term assets will not be made in time and scope that fits within the scope and maturity date of payment of current liabilities. This discrepancy can only be partially remedied with the previously determined minimum cash balance.

However, it should be noted that the practical application of the above method of determining minimum cash balances should be treated with care. Consequently, in companies that are characterized by relatively homogeneous volume of procurement, production and sales, it can provide a satisfactory calculation of the required cash balances without any corrections, while in companies where this is not the case this method has to be adjusted. Bearing in mind what has been mentioned here in connection to the required cash balance, there is a need to point to another important category of which on the liquidity of the company may depend, and it is what is known as *the liquid reserve*. The liquid reserve actually means keeping cash above the minimum cash balance level, with the help of which the company's liquidity will be maintained at a time when the inflow of cash increased by the minimum cash balance is not sufficient for the payment of liabilities due for payment. However, the liquid reserve is not easy to determine, because it is affected by a number of complex factors, among which we should mention the following:

Firstly, the amount of liquid reserves depends on the synchronization of cash inflows and outflows in a short period of time and the degree of probability that the synchronization will be maintained. In this regard, if the synchronization of cash inflows and outflows in the short time is completed and if there is a high degree of probability that it will be maintained, then a relatively small liquid reserves is sufficient. On the other hand, if there is a high degree of risk of claim settlement or if a higher outflow than inflow is expected in a short period of time, a relatively large liquid reserve is required.

Secondly, the amount of liquid reserves also depends on the severity of sanctions in the event of illiquidity of the company. These sanctions may be legal or connected to the market. *Legal sanctions* are those prescribed by the law and they are reflected in the fact that the acquisition is prohibited or limited for the insolvent company, as well as the investment and use of resources for certain purposes or it is required that the insolvent company goes into recovery procedure, i.e. the elimination of insolvency, and if it is not successful then the insolvent company usually goes into bankruptcy. On the other hand, *sanctions connected to market* are those undertaken by creditors towards an insolvent debtor. These sanctions may also be different, but usually consist of the following: calculation of default interest, suspension of further deliveries of goods, suspension of further lending, demanding the payment of accounts payable performed under unfavorable conditions, the requirement that payment obligations are guaranteed by a third party and so on. Similarly to the above, in terms of the need for a certain amount of the liquid reserve it should be said that the rule is: the higher the degree of severity of sanctions, the greater liquid reserve is required, and vice versa.

Thirdly, the amount of liquid reserves depends on whether the company financial transactions are carried out through a current account or a bank account. If business is done through the current account, the required liquid reserves will be lower because in such circumstances the company can count on maintaining liquidity by using current bank loans. However, business through bank accounts does not include the right to use a current bank loan, which also means that in this case we need greater liquid reserves.

Based on what has been said, it is clear that in determining the level of liquid reserves there is no universal and generally accepted method. This means that the level of liquid reserves must be determined by each company in accordance with its needs, relying on previous empirical evidence and taking into account the above-mentioned basic factors that determine the liquidity reserve.

CASH MANAGEMENT STRATEGY

In establishing the financial policy of the company, the choice of cash management strategies can be based on three key factors, namely: (1) extending payment deadlines to suppliers, (2) reduction of stocks, and (3) accelerating the collection of receivables from clients. Each of these alternative strategies for cash management has its own features, as well as its advantages and disadvantages.

Hence, in their choice what must be taken into account are all the relevant factors affecting the shortening of the time of cash cycle and the increase of the income of the company. The above mentioned strategies will be briefly clarified.

1. *Extension of deadline for payment to suppliers* - means reducing the level of financial resources through the greater participation of suppliers in the financing of companies. This source of financing is an important source of short-term external financing. In this regard, the strategy of the above mentioned source of financing can be applied provided there is no loss in rebates from suppliers, in the quality of producers, and that the selling price of purchased raw materials or goods is not increased. Similarly to the above, the company which experiences the scarcity of cash, logically, tends to postpone paying liabilities to suppliers as much as possible without compromising their own credit worthiness. Although the prolongation of liabilities to suppliers can be considered as an attractive financial cash management strategy, the fact remains that the actual possibility for their use is rather limited. In fact, only when the suppliers are largely dependent on the clients' companies, there is a relatively wide area of application of the cash management strategy, although it is an indisputable fact that the delay of liabilities to suppliers may arise on the basis of an agreement on long-term cooperation between suppliers and clients. However, the implementation of this strategy in terms of the general scarcity of cash becomes too expensive. Hence, in such circumstances, suppliers typically charge customers default interest on daily basis on all outstanding receivables after the expiry of the loan period, at the same time offering them *cash discounts* for all payments during the discount period to achieve the inflow of cash as quickly as possible.

2. *Reduction of stocks* - means reducing the cash cycle by increasing the ratio of total stock turnover, creating considerable opportunities for improving the company's economy. However, there is a significant difference in the possibility of increasing the efficiency of working capital management that is in stocks and working capital which is in receivables from clients or the use of funds from the suppliers. Namely, the improvement of the economy through asset management with clients or suppliers, apart from the successful combination of the company's management, largely depends on the consent of the other party, i.e. client or supplier. However, this is not the case with stocks, since the implementation of the strategy of cash management by reducing stocks does not require any approval of business partners (clients and suppliers). This means that the economy of stocks is directly dependent on the business moves made by the management. While seeking the most suitable solutions, the company can use those which suit it best. For example, based on relevant analysis, the financial function of the company may, in cooperation with procurement, production and sales functions, seek the best solutions that reduce investment in stocks, i.e. which increase their turnover in any part of the work process: stocks of raw materials, stocks of unfinished production or stocks of finished products on the market. Similarly, it follows that the efficiency of the financial management of the total stocks with the aim of shortening the cash cycle can be improved only through the efficient management of individual types of stocks, which necessarily presupposes success in performing basic business functions and on the basis of respecting the financial way of thinking in making business decisions. According to these criteria, *the procurement function* of the company should seek to increase stock (raw materials) turnover ratio using modern techniques of the production process. *The production function* must focus on the application of appropriate methods of organization and planning of production in order to enable greater shortening of the production cycle, i.e. increase of the turnover ratio of unfinished production, regardless of the regularity of supply of finished products in the required quantity and range. Finally, *the sales function* has the primary task to, by analyzing and stimulating demand, i.e. planning and improving sales by individual segments and sales channels increase the turnover ratio of finished products. Consequently, effective management of each of these types of stocks also affects the shortening of the cash cycle, i.e. reducing the minimum required cash balance. In this regard, practical experience shows that any acceleration of stocks turnover directly affects the shortening of the cash cycle and reduction of the operating costs of the company. These effects are especially pronounced if the company has well connected core business functions: procurement, production, sales and financial function.

3. *Accelerating the collection of accounts receivable from clients* - means reducing the cash cycle by accelerating the collection of accounts receivable from clients, i.e. by increasing the receivable turnover ratio. However, accounts receivable from clients also present a significant investment of companies, because of the necessity to credit clients. In addition, time of loaning to customers depends on various different factors: the ratio of supply and demand for products, the market position of buyers and suppliers, the quality and price of products, the introduction of a variety of discounts, terms given by the competition, the liquidity of companies, etc.

Accordingly, accounts receivable from clients restrict cash which, if released, can be invested in other productive assets or investments. This restriction is necessary, because lending to customers allows the company to achieve a significantly higher volume and profit from sales, than if sales were done using cash only. In addition, credit conditions necessarily determine credit standards and policies of the collection of accounts receivable. Credit standards refer to the strictness of the criteria which apply to providing credit to certain groups of clients, while the collection policy includes a variety of measures that the company applies so that accounts receivable collected from clients are converted into cash as quickly as possible. Similarly, under conditions of lending all changes and adjustments to credit standards and debt collection policy should be used not only individually but also in a complementary way, in order to shorten the time of the average restriction of cash in accounts receivable from clients and to reduce the minimum of required cash balance. In this regard, the current practice of collection of accounts receivable proved to be very good and flexible through the application of factoring which includes the sale of accounts receivable before the expiry of the loan period.

CONCLUSION

Management of company's financial resources is a particularly difficult task for financial managers. Any surplus money above required is a guarantee of liquidity but adversely affects profitability. Conversely, any cash deficit threatens the liquidity and the ability to settle due liabilities of the company. In addition, lack of cash means the loss of creditworthiness of the company and influences a decrease in its market competitiveness. Therefore, effective cash management requires the company's management to be at any moment aware of the needs of the company for cash, the amount of cash and the place where the cash is located. In this way, it is possible to identify in a period of time the excess cash to be invested or lack of funds to be obtained so that the company can operate normally. In turn, this requires planned management of the expected cash inflows and outflows, as well as ensuring maximum profitability in business operations involving financial resources.

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BUSINESS ETHICS

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ABSTRACT

Marketing communication represents the process of communication of a company with auditorium including potential buyers, current customers and decision – makers. Its aim is increasing sale or market participation on a certain market. However, in modern society which, under the impact of democracy becomes more open and transparent, a company cannot think only about the sale of its own products and services and making profit but it has responsibility towards the society in which it works. Company's conduct, its top managers and all employees must be in harmony with the principle of social responsibility which is one of top principles in modern business. In this sense, the issue of business ethics is becoming more significant because the concept of business ethics is in direct connection with the principle of social responsibility. Business ethics which studies implementation of personal moral norms on activities and aims of a company deals with estimation of business decisions on the grounds of desirable general rules of conduct in the society.

Key words: business ethics, social responsibility, marketing communication, advertising

INTRODUCTION

Every organization or a company should respect certain norms or principles of business conduct while performing its activities. These norms were developed after industrial revolution along with development of different forms and ways of manufacturing. Business moral similarly to social aspect of moral is consisted of principles and norms of conduct in the sphere of performing business activities both of individuals and organizations (Djordjević, Andjić, 2004). Business ethics studies implementation of personal norms on activities and aims of commercial companies. It represents the way of estimating individual business decisions or activities on the basis of socially acceptable forms of conduct. In every society there are general rules of conduct such as customs, rules and laws which represent forms of social conduct. In other words, social conduct includes general rules of conduct within certain social and economic milieu.

Business customs were first developed in the world of commerce which has always had a special significance for development of human world. The first trails of business conduct and rules can be found in the Ancient Times but only with appearance of great geographical discoveries and development of commerce they became important. Going further on, especially after Industrial Revolution, a great number of rules in the field of commerce was coded at national level. Nowadays, the greatest part of business conduct is regulated by national laws or internationally accepted agreements. On the other hand, business ethics goes beyond the frames of laws because it is connected to mutual relations of individuals who are building business relations (Djordjević, Andjić, 2004). In the last 60 years, as a result of globalization (economic, technological, cultural and communication union of human society into one entity) business ethics has got global character as well. In this sense, rules of conduct and business which were not coded at national level are starting to be coded and defined at international level. However, although globalism is interweaved in all segments of the society it does not eliminate specific features and differences in business customs which are the part of successful performance of business activities.

BUSINESS ETHICS AND BUSINESS POLICY OF A COMPANY

Richard T. De George in his book «Business Ethics» highlights that a corporation is morally responsible for its activities to wider public or a society in general (De George, 2003). It means that a corporation has moral obligation not to hurt those who are influenced by its deeds. According to De George, these obligations can be classified in three main categories:

- first is corporation's obligation to preserve the environment, which means not to pollute air and water, to store harmful waste according to regulations and to make amends to the environment;
- second group of moral obligations is related to general safety of those who live at the territory under the influence of a factory. The corporation, too has the obligation to produce safety products;
- third group of responsibility is related to selection of location, opening and closure of factories. Corporations have to consider their activities and their influence on the society from moral aspect.

If company's policy is estimated in the terms of ethics, it can be done by giving answers to the following 5 questions - 5 'principles of ethical strength' : purpose, pride, patience, persistence and perspective

1. Purpose: organization's mission is determined by top management who combines vision and values in defining socially acceptable behaviour.
2. Pride: satisfaction of employees by their work and pride of the organization influence productivity improvement and help in prevention from unethical behaviour.
3. Patience: growth and development as longterm objectives require a certain level of patience which leads to success.
4. Persistence: firm sticking to ethical principles as permanent choice of a company is significant for longterm survival on the market.
5. Perspective: company's top management must always think about perspective, they must set clear objectives and define the ways for their achievement and they must evaluate what has been achieved so far. (Black, 2003)

It is necessary that a company builds its own corporative culture in order to make business policy coordinated with business ethics principles. Corporative culture can encourage or inhibit members of a corporation and it involves the dominating ambience, values, beliefs and practice. Culture of every organization is connected to its ethical values therefore moral culture of an organization depends on moral conduct of its members. Nevertheless, top management has the greatest responsibility for improving business quality. Nowadays, top managers have to possess knowledge, skills, intelligence, capacity for team work, multidisciplinary education, creativity, flexible behaviour and offensive attitude in order to satisfy successfully tasks which modern organization imposes. Beside general principles it is desirable that top managers stick to the following recommendations which influence ethical conduct in organizations:

- behave morally,
- check the people you employ,
- develop sensible ethical codes,
- organize ethical training,
- encourage ethical conduct,
- make places, units and other structural mechanisms which deal with ethics (Djordjević, Andjić, 2004)

Finally, enormous significance of the role of business ethics in business policy can be seen from the fact that nowadays generally accepted principles of conduct are mainly formalized and turned into written rules or codes of conduct. It is possible, in this way, to estimate certain business decisions, activities and conduct in the terms of business ethics. Ethical codes should encourage a certain way of thinking and models of relations which will lead to desirable conduct. Basic

advantages of ethical codes are reflected in the fact that they explain how to differentiate ethical from unethical conduct, encourage thinking about ethical issues and dilemmas, define limits of acceptable conduct, enable employees to reject performing unethical activities, provide mechanisms of transferring managers' philosophy in the field of ethical conduct, etc.

SOCIAL RESPONSIBILITY AND MARKETING COMMUNICATION

In global economy customers are becoming more educated and informed thanks to fast development of information and telecommunication technologies. Information about companies and their products, services and prices are available via Internet. In this new business ambience state administration of most developed countries has developed legislation systems whose aim is prevention of destruction and degradation of the environment and natural resources as well as environmental protection. The aim is to make a balance between economic and social development. All this influences the activities of business entities and development of their consciousness and responsibility towards society in general. Social responsibility is related to obligation of companies and other organizations to increase their positive influence and to decrease their negative activities (Djordjević, Andjić, 2004). Therefore, social responsibility unlike ethics, which is the matter of every individual in the field of business, is related to the influence of business decisions on the society. According to this, all members of the organization have to consider and evaluate their deeds and contributions realistically and take responsibility for their activities in order to satisfy wider range of interests in their social surroundings. Namely, one of the most significant principles on which modern business is based is organization based on responsibility (Djordjević, Čoćkalo, 2004). If we consider evolution of an organization based on responsibility since the 70s of the last century until today we can notice great changes in this organization. Until 70s, it was enough that a company satisfied basic economic aim – profit as a ground for achieving growth and development, but since 70s satisfying customers' requirements has become more and more significant business aim. However, the 90s brought a necessity of satisfying general social interest (Djordjević, Andjić, 2004). In order to achieve it companies must accept improved market philosophy – social marketing which implies effort on the side of company to determine the needs of target market and satisfy customers' needs in more efficient way than competitive companies. However, the company's obligation is to improve benefits of both customers and the society. Social marketing concept is based on three basic elements:

- welfare of the whole society,
- satisfaction of customers' needs,
- making company's profit.

Thus, in order to fulfill its aims a company should constantly improve the quality of its business taking care about basic aspects of quality – market, business and social. While market aspect is related to satisfaction of customers' needs and achieving competitive advantage and business aspect to improvement of quality of internal economy through increasing efficiency, reduction of costs, increasing productivity and profit, then social aspect implies improving welfare on the grounds of improving quality of life. Quality of life includes: protection of health, safety and protection of employees, protection of the environment, preservation of natural resources, safety of all and business harmonized with regulations. This business philosophy is called Total Quality Management – TQM. Total quality management implies combination of technical, technological, market, economic, organizational and ethical business aims whose final aim is making responsible individuals who contribute to increasing productivity and general welfare by their work and activities.

Paying attention to environmental protection is increasing and it influences expanding relationship concept with a society. It would be desirable that beside company's management public relations deal with these issues, too. Public relations tend to make positive image about a company, its products and services in external publicity. This sector should identify all activities and predict possible consequences, give advice to top management and realize planned program of activities

which will be in interest of both a company and the society (Black, 2003). Black also says that contribution to social community is not altruism but enlightened self-interest beneficial for both sides. Profit is secured for a company which works in friendly environment (Black, 2003).

THE ROLE OF BUSINESS ETHICS IN REALIZATION OF ECONOMIC PROPAGANDA

Economic propaganda is a form of mass communication whose aim is transfer of information, developing tendencies and encouraging activities. It is a form of promotion where a company finances presentation to current and potential buyers via means of mass communication in order to stimulate a demand for its products and services (Milisavljević, 2001). According to Kotler, economic propaganda is a form of mass presentation and promotion of ideas or services of known procuring entities which in a way influences opinions, attitudes and activities in the wished direction (Djordjević, Bešić, 2004). Namely, three basic aims of economic propaganda are to inform, persuade and remind. Depending on the character of demand, the aim of propaganda is to stimulate primary or selective demand. If we want to increase general level of demand for some product on the market, we will stimulate primary demand; if a concrete brand is advertised then propaganda activities will be directed to stimulation of selective demand. Economic propaganda makes conditions by its activities for increasing sale of products and services which leads to strengthening of competitive position on the market and improving quality of products and services.

The role of economic propaganda in communication with the market is exceptionally important. It can be achieved by combination of different techniques of propaganda activities and by their proper selection. The character of economic propaganda in concrete promotion mix of a company depends on different factors such as: product's nature, phases in life cycle, characteristics of sale process, size of the company and its financial power, business ambience and orientation (Djordjević, Bešić, 2004).

Relationship of a society towards economic propaganda differs from country to country. Like other business activities the activities of economic propaganda are also exposed to public criticism. At the beginning of 20th century in USA was adopted the first law which regulated the activities of economic propaganda and it was related to the field of disloyal competition and business practice. Federal Commission of Trade passed another law twenty years later to protect consumers from propaganda and its often too persuasive influence. Thus, the field of economic propaganda became the subject of social supervision that the society performed by implementation of different state measures and codes of conduct. Internationally, this field was first regulated in 1937 by International code of conduct in economic propaganda (Vračar, 1997). This code which was later revised several times was the result of International Chamber of Commerce's policy related to improvement of rules of conduct in the field of commerce and marketing based on self-discipline and without implementation of legal regulations. The last edition of Codes (1986) is supplemented by codes of conduct related to children. This Code is applied to all types of economic propaganda for all products and services and at its implementation we should pay attention to provisions of other codes of International Chamber of Commerce which regulate: practice of marketing research, improvement of sale via catalogs and direct mail, direct sale...The Code contains ethical norms which must be respected by all who deal with economic propaganda.

Economic propaganda should be evaluated from the view of its possible influence on consumers taking into consideration the type of medium which is used. Basic principles which this Code includes are: decency, loyalty, truth, improvement based on objective, true, loyally chosen facts, prohibition of degradation of other companies, activity or profession, protection of privacy, prohibition of misuse of brand name or copying other propaganda messages, responsibility, treating the problem of security and principles and identification of economic propaganda. Article 13 of this Code is related to children and youth. Its aim is prevention of activities of economic propaganda on

misuse of children's credulity and lack of experience which can harm them morally, physically or psychologically.

Although the field of economic propaganda is regulated by international and national codes and state measures economic propaganda has possibility to act as strong means of persuasion which can influence positively or negatively on consumers' conduct. Achievements of high technology have enabled maximum influence of propaganda messages on consumers and there have been talks about the impact of neuro marketing recently which deals with creating propaganda messages that in specific way act on certain centres in brain of consumers. By negligence of ethical principles consumers are suggested to buy certain products that will ostensibly help them to change their social status, become more beautiful or happier. There is also a well known example of «fraud based on popularity and authority» - these are propaganda messages addressed to consumers by popular people from various fields (ex. medicine or science) in order to persuade them to buy certain products or brands. However, not all such activities of economic propaganda can be characterized as negative ones but it is necessary to cherish critical attitude and tend to building fair relations between consumers and producers. The best way for achieving this aim is development of producers' responsibility and consumers' education. For instance, obligation of cigarette manufacturers to print a warning on packs that smoking harms health represents the example of producers' responsibility.

Current business ambience more and more looks like modern arena where a fierce fight is being fought among competitive companies for domination on the market. Industry of propaganda plays an enormous role here because its activities influence consumers to give advantage to certain producers. Are all means allowed and does the aim justify the means? Perhaps, but not in the long run, because marketing experts insist more and more on marketing which is in correlation with public interest and which includes the following principles:

- freedom of consumers and producers,
- prevention of potential damage,
- meeting basic needs,
- economic efficiency,
- innovations,
- education and informing consumers,
- consumers' protection.

Turning to public interest, professionally led and creative propaganda activities based on ethical principles of respecting integrity of consumers and competition is useful not only to producers but to the society as a whole.

CONCLUSION

It is generally accepted that modern companies have obligations towards a society in which they work. Their basic duty is to be successful and efficient, to improve quality of their products and services and, on the other hand, to be «good citizens» who respect the principles of social responsibility. In this sense activities of economic propaganda should be considered, like forms of mass communication of companies with market auditorium via media for mass communication. Economic propaganda is an activity whose aim is to inform, persuade and remind and it should be based on firm ethical principles of truth, loyalty and objectiveness. In current business ambience implementation of ethical principle and principles of social responsibility in realization of economic propaganda is becoming highly significant. Communities should develop producers' responsibility and consumers' education in order to reduce possibilities of manipulation. Namely, turning to public interest and social welfare through respecting consumers' integrity and competition as well as cultural and social values should be the aim of every company. In this sense,

professionally led, planned and creative propaganda activities should help a company to realize this aim.

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A CRITICAL REVIEW OF THE MANAGEMENT SYSTEM AND ORGANIZATIONAL STRUCTURE IN THE ELECTRIC POWER INDUSTRY OF SERBIA AND THE NECESSITY OF CHANGE

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ABSTRACT

The article offers a critical review of the role of management and the current organizational structure of the Electric Power Industry of Serbia. The authors of the article describe the basic problems and oversights made in the management chain and the consequences arising from wrong decision-making. The oversights mentioned were made in the Electric Power Industry of Serbia, but also in many other public and state companies in which the chain of management and the organizational structure were designed according to the same principle. The article is a result of the study done by the authors and can, but needn't be accepted as a guide for solving some decade-old-problems existing as a result of wrongful managing of the public and state sector in Serbia.

Key words: public sector management, organization, human resources, managerial competences, reform

INTRODUCTION

The reform of the Electric Power Industry of Serbia has recently been a subject of interest and it has drawn attention of all the parties whose interests it touches, both directly and indirectly. Still, in this process, two parties are affected the most: the state, as the owner of the Electric Power Industry of Serbia, and its employees. The process of transition has brought a turn since the state has come to realize that this company needs to become independent, demonopolized to some extent, and start regulating their relations with their clients in accordance with the market principles, instead of regulating them administratively. On its way of gaining independence, this company is facing many problems, two of which are interrelated and mutually conditioned: the organizational and the social one. Namely, an oversized and massive organization created in the past, lead by an incompetent management, and often under the influence of the governing political parties, has created an employee surplus which is now an obstacle standing in the way of this organization's reform (Allas & Leslie, 2001).

A CRITICAL OVERVIEW OF THE CURRENT SITUATION

The Electric Power Industry of Serbia is now working under the motto of „corporate social responsibility“, which refers to the mission of EPIS – to ensure the stability of the supply of electrical energy to all the buyers in Serbia, to educate the buyers about the rational use of electric energy, to be responsible towards the community and to care for its most valuable resources – the employees and their health and workplace safety. No country in the world today enjoys ideal stability of the supply of electric energy, but the stability of the supply of electric energy in Serbia

is currently more than endangered. The officials from the Electric Power Industry of Serbia hold back the fact that this stability means the functioning of the electro-energetic system on the minimal optimum. Due to the lack of money, new investments are small and the supply to the final consumers does not meet the technical criteria on the nominal voltage and the electricity that the final consumers are entitled to receive as it is determined by the Energy Law. Yet another fact often unknown to the public is that none of the smaller cities has an additional, independent distribution system which could supply electricity to buildings of general safety and importance in case of a longer period of distribution system failure.

As far as the human resources are concerned, according to the information provided by the Electric Power Industry of Serbia, this company employs 33851 people. Amusingly enough, many of these people seem to have bound their personal and their families' destinies to this company. They not only oppose any reform mentioned in EPIS, but they also come out to the streets to protest, asking for some of their guaranteed rights which are, if we look at the overall situation in Serbia, far from reality. The employees believe that their working positions are to later be filled by their own children, by some kind of hereditary principle, and nepotism is habitually exhibited. We can easily notice their opposing to privatization of any portion of EPIS, even if it would be beneficial for them and their families. Still, the largest problem is the inability of the management to influence its workers in any way. Both the management and the employees often follow the principle of staying out of conflicts and postpone solving the problems for decades, for the sake of some sort of domestic peace. Knowing these facts, we can safely conclude that people incompetent to do that job currently occupy the managerial positions, or even people who never had adequate credentials to get a job in EPIS in the first place. The workplace safety is at its minimum, and we are often witnesses of electrical fitters' injuries, sometimes even with fatal consequences, and no one has taken responsibility for such tragedies for years.

THE CHARACTERISTICS OF THE ORGANIZATIONAL STRUCTURE MODEL IN THE ELECTRIC POWER INDUSTRY OF SERBIA

Factors affecting the organizational design of the Electric Power Industry of Serbia

State is a poor entrepreneur, and so has EPIS started to resemble its owner, the state, more and more – it is oversized, irrational and expensive. Even though it has become popular to talk about demonopolization, deregulation and privatization of EPIS, this company is still a public service for all the citizens and, as such, it needs to direct its business not only towards profit but the social motives as well, while the state would have to keep the part of the ownership so it could have a solid base for controlling their work (Ashkenas et al., 1995). The characteristics of ownership and the mission of EPIS strongly influence the characteristics of its management. The managers of EPIS are exposed, more so than managers in other types of companies, to control and judgment of the public. This leads to the fact that EPIS has for years now been forming the price of electric energy based on the socio-economic situation in the country, supported in such price making by the state, and in this way, it keeps making huge losses (Bennis, 2002). State ownership is a factor that implies high level of central decision-making and the mechanical design of EPIS's organization. On the other hand, the privatization of EPIS should not be primarily a means of filling the state budget, but rather a way or a means to change the current situation and transform this system into a rational, efficient, innovative and modern one (Grinberg & Baron, 1998). Instead of allowing it to have the monopolistic position, a competition to EPIS should be created. In any story of business success, the environment comes first, and then come the managerial abilities and the organizational and leadership skills. If there is no competitive pressure coming from the environment, EPIS can as well behave uneconomically, since the customers have no choice. The existing setting is currently showing traits of a stable, but complex and often-hostile environment. Its stability stems from the monopolistic position, thanks to which EPIS is protected from the market and the competitive pressure (Birch & Burnett-Kant, 2001).

The EPIS's organizational culture is under a strong influence of the Serbian national culture characterized by high distance of power that implies centralization of decision-making, and collectivism

which implies the employees expecting their organization to take care of them. Such climate supports and often favors the passivity of the employees, and their avoiding of uncertainty which further reinforces their belief in the rightfulness of the decisions made by the managers. In such organizations, value is assigned to standards that determine the organization and formalize the behavior of the employees, instead of respecting their personal initiative and creativity. Furthermore, the system of values is often set on the wrong basis and is reflected in the favoring of social relations and the social instead of the material status (Hofstede, 1997).

Leadership is a critical factor of the success of any modern company working in the conditions of globalization, informatization and deregulation of entrepreneurship, diversified labor, great challenges, threats and also great possibilities. Leadership as a process of creating a vision, mission and strategy builds a success of a company on a long-term basis, and with the help of motivated and content workers and an organizational culture that becomes a magnet connecting people to their organization and encouraging them to maximally commit to their jobs. In Serbia, more than money, we lack leadership. Leadership contents cannot be created or practiced by managers which listen to what the state administration says, but those who achieve the position in which the state administration follows their instructions. The managers should free themselves of the administrative limitations and learn how to lead their companies with the help of people who work in those companies. Real leaders need to be prepared for change and accept both high and low positions in their organizations. It is not wrong to say that in companies everything depends on the first man and his style of management. The employees can openly express their opposition towards their managers and that is a benign form of conflict. On the other hand, hidden resistance is a lot more dangerous form of conflict since it creates an illusion that “the managers and consultants have done everything possible and the expenses are still rising“(Schein, 1985).

Organizational parameters

In the Electric Power Industry of Serbia as a traditionally engineering-profiled organization, the division of labor is very high in the horizontal and very low in the vertical direction. High horizontal division of labor implies narrow specialization of the employees, which further makes the whole organization suffer from routine which again is the most common source of monotony, apathy, frustration and stress. On the other hand, low vertical division of labor means that all the employees in these companies are scaled down to mere executants of job orders, they are excluded from decision-making and are very far away from the managerial top (Mintzberg, 1979). Such position of workers weakens their motivation, their sense of belonging to the organization and their commitment to work. The employees see themselves as unimportant and insignificant to their company, a climate of mistrust is created and a space for conflicts opens up. Experts working in the Electric Power Industry of Serbia are restrained; their knowledge, ideas and abilities are, in most cases, trapped in some directorate in which these people's responsibilities are extremely narrowed. The most favorable position is still held only by the engineers who create standards and procedures and need to have an adequate degree of autonomy in deciding on what they are doing. Other professionals, let alone craftsmen, have no right to make decisions. In such conditions, “winners-losers“relations easily become the most prevalent ones, in which the winners are those who have the right to make decisions, and all the others are the losers. Similar tasks are grouped into business functions and the functional departmentalization prevails. Besides having its advantages (functional specialization), functional departmentalization has its weaknesses which are most evidently reflected in the functional isolation of experts which produces the so called 'silo effect'. The experts are separated from one another, each of them is in his/her own silo; a part is preferred instead of the whole. Interfunctional cooperation is, as a rule, poor, which means that the managers at the same hierarchical level do not cooperate and are often in conflict (Daft, 1992). In the Electric Power Industry of Serbia, they rely on the standardization of the process and the formalization of behavior. In large, vertically integrated infrastructure companies like EPIS, besides the standardization of the process, plans (the standardization of outputs) are also an important mechanism of coordination. EPIS, as a traditionally bureaucratic organization, very much relies on the hierarchy as the oldest mechanism of coordination and control.

Combination of the parameters described contributes to the emergence of the recognizable model of the organizational structure of EPIS. This structure has all the characteristics of mechanical design: lots of

managerial positions, parallelism in job completion, centralized authority, predefined chain of command, low level of responsibility, and motivation of employees (Lavrence & Lorsch, 1969). This weakness manifests itself through the afore mentioned 'silo effect' (Petković et al., 2002).

THE NECESSITY OF CHANGE

In order to ensure an efficient and non-discriminatory access to the electrical grid, it is desirable to manage the transmission and distribution systems through legally separated/independent entities where there exist vertically separated companies. It is also desirable that the operators of the transmission and distribution systems have the actual right to make decisions concerning the resources needed for the maintenance, managing and development of the grid in case when those funds are owned and governed by vertically integrated companies. It is necessary to guarantee that the operators of the distribution and transmission systems are independent, especially when the interests of production and supplying are in question. This is also the reason why the operators of the distribution and transmission systems on the one hand, and the companies for production and supply on the other, have independent management authorities (Day & Jung, 2000).

In order to ensure an effective access to all the parties participating in the market, including the new ones, it is necessary to have non-discriminative balance mechanisms which will reflect the expenses. As soon as the electric power market becomes solvent enough, this will be possible to achieve by introducing transparent, market-based mechanisms of supply (sale) and purchase of electric power which are necessary for achieving balance. Since there are now no such solvent markets, the national regulatory body should actively participate in ensuring the non-discriminative balance tariffs which will reflect the expenses. At the same time, it is necessary to predict adequate stimuli aimed at achieving balance between the offer and demand for electric power so as not to endanger the whole system. The buyers of electric power should be free to choose their suppliers. However, in order to form an inner market of electric power it is necessary to conduct the process of introducing a system into the market gradually, so the industry can adjust and establish appropriate measures and systems needed to protect the interests of the buyers which should be enabled a real and efficient right to choose their supplier.

The conclusions the authors arrived at have served as the base for pointing how complex a reorganization EPIS is facing and how it could answer the demands of both internal and external environment. This is the reason why the authors describe three possible models of organization and management which could prove to be interesting in the near future. The models are the department model, the department-regional model, and the technological model. Each of the models suggested has its strengths and weaknesses which can be used when rating their adequateness. The final choice of a model is also largely influenced by the situational approach, and we should not forget the fact that EPIS has a technical tradition and corporate culture which gives real chances for success in achieving the set goals.

DEPARTMENT MODEL (according to functional areas)

Several different departments or functional areas can be identified within the Electric Power Industry of Serbia: coal production, electric energy production and the distribution of electric energy. Following the logic of trade, in the organizational sense, organizational departments can be formed to cover for the different functional areas. This model is shown in the Figure 1.

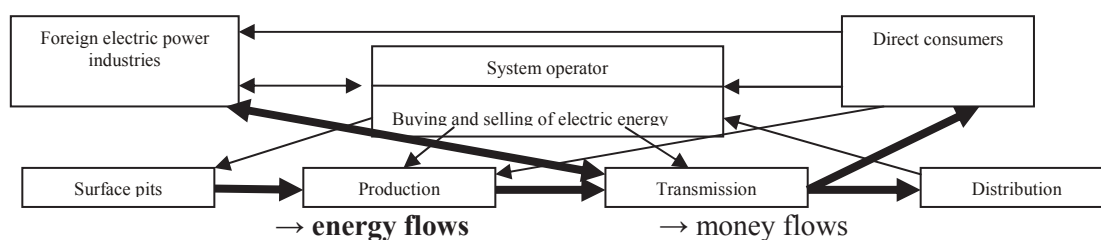


Figure 1: Department model based on functional areas

Forming organizational wholes related to different functional areas would improve EPIS’s internal efficiency. These organizational wholes are structured around basic trade lines and represent enclosed technological and economic bodies.

COMBINED DEPARTMENT-REGIONAL MODEL

With suggesting this model, the authors partly define the previous one, based on different functional areas. This model is shown in the Figure 2.

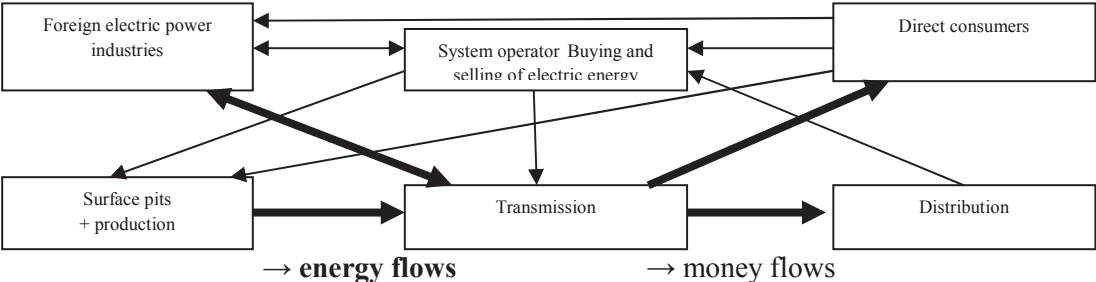


Figure 2: Combined department-regional model based on organizational trades related to different functional areas

The advantages of this model are seen in the fact that more than 90% of coal is used for electric power production, which implies that the external market for coal is limited.

TECHNOLOGICAL MODEL

It is a well-known fact that technology is a way to achieve a goal. With the help of technology, a system is transformed from one condition to another, desired one. This means that if a goal is to be achieved, i.e. if the technology needed to achieve the goal is to be implemented, there has to exist an organizational and management system.

In the distribution trade, there are similarities between the trade technologies but we can also see the differences in the power grid character (air or cable), the voltage levels (110, 35, 20, and 10 kV), as well as in population density (the number of consumers per unit of measure for an area) which all influence the characteristics of certain technologies and the distribution trade itself.

Everything described above allowed the authors to describe yet another model, a model based on the technological grounds. This model is shown in the Figure 3.

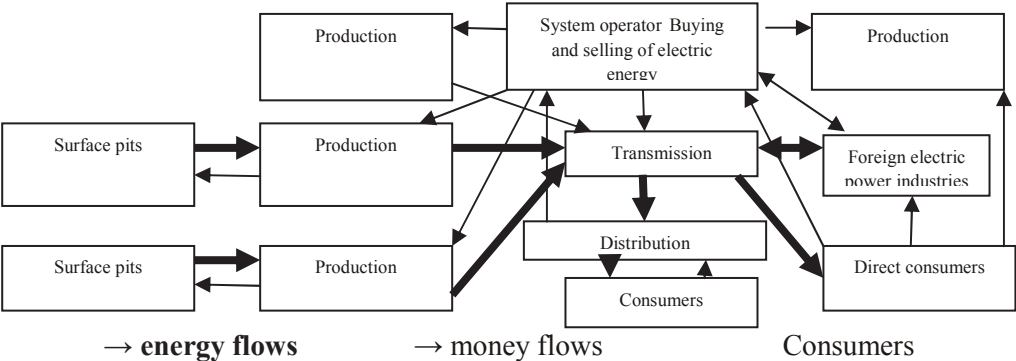


Figure 3: Technological model based on technological similarities

This model is a decentralized model of organization and management. It upholds the validity of the role of certain organizational parts in achieving production and business results, i.e. it opens up much more space for the activities of a functional management. If this model of organizational structure and management were to be introduced in the Electric Power Industry of Serbia, it would be a significant step towards the existing restructuring goals set before this company. The model shown has elements of both vertical and horizontal decentralization.

ECONOMIC ASPECTS

A transfer pricing system, clearly defined and compliant with all the participants, is acceptable only as a starting, temporary solution, limited to a period of a year or two. Implementation of such a system would also ask for a previous determining of the levels of real business expenses in all the trades, i.e. organizational departments. This kind of a temporary solution is seen as a necessity in the current conditions of unreal price of electric power (around 6,5 eurocents/kWh) and it could get us through the transitional period until reaching the realistic price of electric power which, according to the latest analysis, should be around 9,5 eurocents/kWh. The realistic price of electric power is the price which can cover for all the real expenses of the production, transmission and distribution of electric power, scaled down to the currently most suitable level. This issue also implies the need for considering the possibility of separate analyzing of electric power production in different objects, i.e. organizational units of production (hydroelectric power plants, thermo-electric power plants and cogeneration plants).

CONCLUSION

In the organization of EPIS formed in the way as it is, nobody is responsible for anything, which is not good. The changes are more than needed. The Government has formulated and agreed upon the starting points for the reorganization before over a year now, but nothing has been done since. The Ministry of Energy needs to put the change of the Statute of EPIS onto the Government's agenda as soon as possible, since the Statute needs to be changed so EPIS could be transformed from a public into a holding company. Without this change, EPIS will continue to lose 30 to 35 million Euros a year, which is 100.000 Euros a day. We believe, in this phase of our study, that the third model – called the technological model, should be the chosen one, and applied in accordance with the economic aspects described and certainly after further elaboration.

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DISSEMINATION OF INNOVATION AND KNOWLEDGE MANAGEMENT TECHNIQUE: BUSINESS PROCESS REENGINEERING

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ABSTRACT

Business Process Reengineering involves changes in structures and in processes within the business environment. The entire technological, human, and organizational dimensions may be changed in Business Process Reengineering (BPR). Information Technology plays a major role in Business Process Reengineering, as it provides office automation, it allows the business to be conducted in different locations, provides flexibility in manufacturing, permits quicker delivery to customers and supports rapid and paperless transactions. In general it allows an efficient and effective change in the manner in which work is performed.

Key words: Reengineering, information, implementation, organization, employees.

WHAT IS THE BUSINESS PROCESS REENGINEERING?

The globalization of the economy and the liberalization of the trade markets have formulated new conditions in the market place, which are characterized by instability and intensive competition in the business environment. Competition is continuously increasing with respect to price, quality and selection, service and promptness of delivery. Removal of barriers, international cooperation, technological innovations cause competition to intensify. All these changes impose the need for organizational transformation, where the entire processes, organization climate and organization structure are changed.

Hammer and Champy (1993) define Business Process Reengineering (BPR): "the fundamental rethinking and radical redesign of the business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed."

Having the management commitment for change, another very important factor for implementing BPR, is the enabling role of Information Technology.

The way that businesses are organized around departments is very logical since, for instance, there were physical barriers in the communication of the accounting department with production department. (The warehouse could be in another location in the another part of the city). So it wasn't possible for a cross-functional team to communicate efficiently. In the 90s, when telecommunication technologies were becoming abundant and low costing BPR was becoming a world-wide applicable managing technique for business upgrade, enabled by the technology. Employees can easily operate as a team using intranets/extranets, workflow and groupware applications, eliminating distances. We can work together even though we are located in different places.

Empowering people. Empowerment means giving people the ability to do their work: the right information, the right tools, the right training, the right environment, and the authority they need. Information systems help empower people by providing information, tools and training.

Providing Information. Providing information to help people perform their work is a primary purpose of most information systems, although they provide information in many different ways.

Some systems provide information that is essential in informing a business process, such as the prices used to create a customer's bill at a restaurant. Other systems provide information that is potentially useful but can be used in a discretionary manner, such as medical history information that different doctors might use in different ways.

Providing Tools. In addition to providing the right information, empowering people means giving them the right tools. Consider the way, planning analysts produce consolidated corporate plans based on plans of individual divisions and departments. When the plan is changed during a negotiation process, the planning analyst has to recalculate the projected results.

Providing Training. Since information systems are designed to provide the information needed to support desired work practices, they are often used for training and learning. As shown by an expert system and a decision simulator, they sometimes provide new and unique training methods.

IBM developed an expert system for fixing computer disk drives. The expert system was an organized collection of the best knowledge about fixing these disk drives, and it fostered rapid and efficient training. Before the system was developed, technicians typically took between 1 and 16 months to become certified, but with the expert system, training time dropped 3 to 5 months.

In depth, BPR assumes that the current processes in a business are inapplicable and suggest completely new processes to be implemented by starting over.

BPR is achieving dramatic performance improvements through radical change in organizational processes, rearchitecting of business and management processes. It involves the redrawing of organizational boundaries, the reconsideration of jobs, tasks and skills.

The whole process of BPR in order to achieve the above mentioned expected results is based on key steps-principles which include redesign, retool, and reorchestrate. Each step-principle embodies the actions and resources as presented in the table below.

Table 1: The 3 Rs of Reengineering

REDESIGN	RETOOL	REORCHESTRATE
Simplify	Networks	Synchronize processes
Standardize	Intranets/extranets	IT
Empowering	WorkFlow	Human resources
Employeeeship		
Groupware		
Measurements		

When applying the BPR management technique to a business organization, the implementation team effort is focused on the following objectives:

- Customer focus. Customer service oriented processes aiming to eliminate customer complaints.
- Speed. Dramatic compression of the time it takes to complete a task for key business processes. For instance, if process before BPR had an average cycle time 5 hours, after BPR the average cycle time should be cut down to half an hour.
- Flexibility. Adaptive processes and structures to changing conditions and competition. Being closer to the customer, the company can develop the awareness mechanisms to rapidly spot the weak points and adapt to new requirements of the market.
- Quality. Obsession with the superior service and value to the customers. The level of quality is always the same controlled and monitored by the processes, and does not depend mainly

- on the person, who servicing the customer.
- Innovation. Leadership through imaginative change providing to organization competitive advantage.
- Productivity. Improve drastically effectiveness and efficiency.

In order to achieve the above mentioned adjectives, the following BPR project methodology is proposed.

METHODOLOGY OF A BUSINESS PROCESS REENGINEERING PROJECT IMPLEMENTATION

In order to implement BPR to an enterprise, the followings key actions need to take place:

- Selection of the strategic (added-value) processes for redesign;
- Simplify new processes - minimize steps - optimize efficiency;
- Organize a team of employees for each process and assign a role for process coordinator;
- Organize the workflow - document transfer and control;
- Assign responsibilities and roles for each process;
- Automate processes using IT (Intranets, Extranets, Workflow Management);
- Train the process team to efficiently manage and operate the new process;
- Introduce the redesigned process into the business organizational structure.

All methodologies could be divided in general 'model' stages:

- The Envision stage: the company reviews the existing strategy and business processes and based on that review business processes for improvement are targeted and IT opportunities are identified.
- The Initiation stage: project teams are assigned, performance goals , project planning and employee notification are set.
- The Diagnosis stage: documentation of processes and sub-processes takes place in terms of process attributes (activities, resources, communication, roles, IT and costs).
- The Redesign stage: new process design is developed by devising process design alternatives and through brainstorming and creativity techniques.
- The Reconstruction stage: management technique changes occur to ensure smooth migration to the new process responsibilities and human resource roles.
- The Evaluation stage: the new process is monitored to determine if goals are met and examine total quality programs.

The expected results for a company that implements business process reengineering are the following:

- Reallocation of jobs and processes so as to be combined into fewer, to be executed in natural order, simultaneously and by the least possible number of employees;
- Reorganization of the company's structure (downsizing) and employee empowerment;
- Jobs and processes become flexible so as to be executed according to the needs of each case, company's and customer's need's (hybrid centralized/decentralized operations).

The above changes will bring reductions of costs in the company, better quality (as far as price, promptness of delivery and offerings of related services) in the products and services provided to the customers.

Several surveys and benchmarking findings reveal the essential role of consultants in the BPR process. Consultants' help and guidance may be extremely beneficial in all stages of the BPR procedure. This is due to the fact that consultants have the following attributes:

- They are objective and immune to internal politics;
- They have followed the process before;

- They bring information and best practices from other companies;
- They are good communication paths between front line workers and customers, and the leaders of the company or organization,
- Consultants, besides their beneficial qualities, can also unintentionally create barriers by: having the solution being viewed as "theirs" and not "yours", and taking too strong a lead role and disengaging the organization.

The role of consultant may be:

- a strong facilitator and experienced practitioner who brings a methodology with them;
- a team member; can be an objective and unbiased contributor to the solution;
- a subject-matter expert with knowledge of performance levels and best practices of similar organizations and processes, able to perform specific tasks for the team.

APPLICATION

Where the technique has being applied?

The technique was applied first to multinational cooperations, such as IBM, AT&T, SONY, GENERAL ELECTRIC, WALL MART, HEWLETT PACKARD, DEC, KRAFT FOODS, having as a result major downsizing in their organizational structures. Later, the banking sector began to reengineer with a great degree of success such as CITIBANK , NORTHWESTERN BANK, BANK OF AMERICA and others. Business process reengineering is also being used to change the organizational structure of public services. First the government cabinet of Egypt reengineered its processes along with many Municipals in Europe.

Most of the times, re-engineering is applied as a "must", when innovative IT tools are introduced to SMEs. For the first time we can say " that IT does not only support management, IT changes the organizational structure". Today 120 businesses from small to medium size in Greece and thousands in Europe have installed such types of IT systems reengineering also their organizational structure.

Types of firms / organizations that BPR can be applied

BPR could be implemented to all firms (manufacturing firms, retailers, services, etc.) and public organizations that satisfy the following criteria:

- Minimum number of employees: 20 (at least 4 in management positions);
- Strong management commitment to new ways of working and innovation;
- Well formed IT infrastructure.

Business Process Reengineering could be applied to companies that confront problems such as the following:

- High operational costs,
- Low quality offered to customers,
- Poor performance of middle level managers,
- Inappropriate distribution of resources and jobs in order to achieve maximum performance, etc.

Duration and implementation cost of BPR

The duration of each BPR project varies from 6 -to 10 months. It depends on the techniques and methodology that each consulting company (that usually participates in the procedure) is using.

The implementation of a BPR project consists of two stages:

1. The process management and redesign study and consulting stage;

2. The implementation of the redesigned process using IT tools, including employee training and introduction of the new processes to the company organizational structure.

Table 2: Two stages of Business Process Reengineering

STAGE	DESCRIPTION	COST IN EURO
1	The process management and redesign study and consulting	From 4000 to 7000
2	The implementation of the redesigned process using IT tools, including employee training and introduction of the new processes to the company organizational structure	From 5000 to 9000
TOTAL		From 9000 to 16000

Conditions for implementation

Infrastructure requirements:

- An operating transactional and accounting computerized system inclosing the commercial part of the transactions;
- A network that connects all key personnel;
- Workstations with Windows NT or Windows 1995 system or latest version;
- An exchange server (MS outlook or MS back office).

CONCLUSION

The globalization of the economy and the liberalization of the trade markets have formulated new conditions in the market place, which are characterized by instability and intensive competition in the business environment. Competition is continuously increasing with respect to price, quality and selection, service and promptness of delivery. Removal of barriers, international cooperation, technological innovations cause competition to intensify. All these changes impose the need for organizational transformation, where the entire processes, organization climate and organization structure are changed.

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SIMILARITIES AND DIFFERENCES BETWEEN JAPANESE AND AMERICAN MANAGEMENT

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ABSTRACT

In this paper we will try to present similarities and differences between American and Japanese management, a way in which they are developed, as well as their pros and cons. American and Japanese management systems have fundamentally different assumptions about workers. The behavioural patterns of American and Japanese employees demonstrate this contrast in work management practice between the two cultures. When it comes to the similarities, the greatest similarities between these two management systems are continuously improving business and manufacturing processes and the development of the most valuable resources - human resources. The best thing is the dedication people in this system have toward the work and continual growth and development.

Key words: Japanese management, American management, managers, human resources

INTRODUCTION

There are three basic management systems. They are: European, American and Japanese. The biggest difference between three management systems are the different culture they were developed in, and that they grew from. The biggest number of management theories have been brought up and developed primarily in America and Europe. It is believed that the most of the theories have been brought up in America, and then transferred to the rest of the world. Direct adoptions of these theories were not proven as successful as previously expected, because the cultural difference was too great. The saying "Adapt, do not adopt" is from that period.

The basic characteristic of managers in previously mentioned systems is professionalism. It is in absolute contradiction with improvisation and any kind of amateurism in business. It implies high dedication to work, profession and field of work, and high level of knowledge, skill and responsibility. The knowledge and skill are acquired both through organized system of education and practice.

Another general feature that applies to the management officials in every system mentioned above is that they are extremely important and respected people in their communities. Since their successful operation depends not only on the success of the company they work for, but also the fate of employees of these companies and their family members, and often the development of certain regions, branches and even the economy in general. Because of its importance and the fact that their position is permanent, not temporary and expandable as with some political functions, social status and reputation of the general managers of large firms often have a higher rating in the society than the individual ministers.

SIMILARITIES AND DIFFERENCES BETWEEN JAPANESE AND AMERICAN MANAGEMENT

In table 1 are shown basic differences between Japanese and American management.

Table 1: Basic differences between Japanese and American management

	<i>Japanese model</i>	<i>American model</i>
Planning	Long-term	Short-term
Communication	From bottom to top	From top to bottom
Decision making	Collectively	Individual
Leadership	Teamwork	Supervisor
Focus	Towards the group	Towards the individual
Responsibilities	Collective	Individual
Loyalty	Long-term	Short-term
Respect	High level	Low level
Corruption	Low level	High level

Source: (Todorović, 2000)

Growth rate of Japanese companies is much lower than the growth rate of the U.S. companies. Japanese companies focus on steady and gradual growth where they provide "life-time employment" to their employees and they bind to their business partners. U.S. companies focus on the projects and innovation. Not binding sentimentally, they are always searching for the fastest way for the capital turn-over.

Communication in Japanese companies often starts middle and lower management with new ideas. Then the information is sent to the top management and goes through all the ledges of management that idea is regarded by. When an idea reaches the top of the management, everyone that the idea is regarded by is informed. Implementation of the idea starts when the top management sends the approval. Job of the top of the management in Japanese companies are the directing and controlling the middle and the lower management, while in the American system top management starts at the communication and works on decision-making. Implementation of the ideas does not start immediately because firstly idea must be approved by all, unlike the Japanese example, where everyone looks forward to it.

Leadership in American and Japanese management system is reflected in the offices they use. In the U.S. companies, most of the people are settled into small cubes where everyone is doing their job undisturbed by others. In this way individualism is encouraged which is very popular in this management system. Japanese business facilities are a complex of large offices in which teams of people are placed with their leaders. In this way communication is greatly improved and hastened. In this way, one gets a clear picture of project progress with other colleagues and a sense of affiliation to a collective.

Focus in Japanese system is directed to the group, and so, the responsibility for the result achieved is of the collective, while the focus of American system is directed toward the individual, which makes the responsibility also individual. Japanese workers are aware that they are working for the good of the whole company and that the company will care for them and their well-being. That is the reason for their dedication to the company and hard work on its growth and development. American workers do not expect help from their colleagues and also do not provide any. Their fighting spirit urges them to constantly prove themselves and develop professionally and receive an appropriate reward for their performance.

Japanese workers are very loyal to their companies and their employers. They take authority very seriously. That attitude has deep roots in their culture and their system of management has simply assumed that form. Thereby, people rarely changing the company and remaining employed in one for a long time is evidence enough.

American workers often change their companies and loyalty is in short term. A career in this system the progress is much faster if you change companies every two to five years, than if you remain in one company. American workers look for a job based on the size of the salaries and conditions the workplace is offering. They closely specialize and want to be respected and in demand, and change jobs if they are offered higher wages or better conditions for development. Japanese workers rather employ in companies that are starting to grow and have great potential to develop. They tend to contribute and enjoy the respect of their superiors when they show effort and are awarded for the proposed ideas that get adopted, which is a big motivational stimulus.

The level of corruption is much higher in systems where the business is uncertain. The U.S. companies change people at a great frequency and loyalty to the Company's short-lived and low. For personal benefit, some people are willing to damage the company in some way. In Japanese companies, that is a rare because employees perceive their company as their second home and do not want to let anyone harm it in any way and therefore, they work hard to improve it and protect it.

According to new business strategy of the Japanese the winner of the world race for the future will be those that best organize the systematic abandoning of their own products. The Japanese have already started a new phase that will allow the production of three new products for the time it took to produce one. This is achieved by the determined deadline for leaving the new product, which is determined as the same day as the start of his sales. To accomplish this, the Japanese have to work on three parallel conveyor belts. The first one, which Japanese call "kaizen", represents organized labour to improve the product for a specific purpose and fixed time periods. On the second one is organized "jumping", i.e. development of a new and completely different product from the old, that already exists. The third bar is the right innovation. All three of these conveyor belts work in parallel but under the guidance of the same team, so there is a simultaneous production of three new products.

Strategies in the United States were traditionally clear and defined. They were prepared by professional planners and they are written as a formal plan. In Japan, it is much freer job that is generated by the whole organization and is expressed as a vision and a mission, not as a precise plan. As a highly developed economy and major global trader and investor, Japan is an important partner for the EU. Japan is the world's third largest national economy. (EU and Japan)

Americans are quickly establishing business relationships, but their relationships do not go in depth and are not long-lived, because they are focused on the job and on its merits, rather than on the relationships between people. One of the best ways to successfully do business with American businessman is to move to a job pragmatic and professional approach. Focus on the job and directness in this form can create an image of professionalism. That is the way to build confidence and successful cooperation with American businessmen.

SIMILARITIES AND DIFFERENCES BETWEEN JAPANESE AND AMERICAN MANAGEMENT IN HUMAN RESOURCE MANAGEMENT

In the Japanese management system priorities of main company functions are the people who are employed there, second are the users of its services and products, and at the end are the owners and managers. This system puts human resource in the first place and is reciprocal to American system that puts the owners and managers first, and consumers and employees last. A key to understanding the difference between the behaviour of Japanese and American companies, is the influence of its shareholders. In Japanese companies, the emphasis is on growth and development, in contrast to the U.S. where capital and its turnover play a major role. Japanese encourage "lifetime employment", where workers are very loyal to the company and see it as their second family. They live to work. The progress of graduates from lower management to middle management may take more than ten years, and this is because in order to thoroughly examine their quality and take into account all of his successes and mistakes during the course of employment. Progression to middle

management runs a little slower, but eventually reaches that level, and how people are not laid off and rarely move from one company to another, the company has to grow in order to enable them advancement!

In American corporations material progress is more important than humanistic. There is a strong orientation toward individual initiative and achievement. This requires a large and rapid turnover of capital and shareholders are relentless in this regard. This leads to a management system that tends to pursue the highest possible profit in a short period of time. "Time is money" - as the saying goes, and the American management system accepts this quite literally.

Japanese corporations are looking to maintain the number of employees, even during tough periods and with patience wait for better times. On the other side of the Pacific companies are willing to let go some of the people, in order to reduce costs and quickly recover and gain its competitive position.

The organizational structure of Japanese management has three basic levels. At the top of the pyramid is a strategic management which usually consists of: president and CEO, Director of Operations, Director and Board of Directors. Legally the board of directors is the highest authority in the decision-making process, although in practice the actual decisions are often made by a smaller board of directors of operation or special committees with a small number of members in higher positions. This management system is committed to making its decision forwarded to lower levels of the organization in the form of recommendations, suggestions or information, and rarely in the form of a conclusion, commands, orders, or instructions that they would necessarily have to adhere to.

The second level is called middle management and is responsible for the unit it manages. This layer consists of personnel executive sector "buccho" and heads of department "cacho" and they are mostly men between the ages of thirty-seven and fifty years who are working in the company for over fifteen years. Middle management makes plans how to realize the demands that come from "above". Operational management is mainly composed of two groups of managers: the first consists of young people with college degrees and little experience, and second structure consists of senior managers, usually over 50 years, with or without a degree but with a lot of practical experience. From this group individuals are later recruited for middle and top management (Todorović, 2000).

As the first feature of American workers is alleged individualism which indicates that the workers do not want to, when executing work assignments, help their colleagues, and certainly do not provided help to others. He wants to test his skills in solving problems. In this way, the employee has the opportunity to meet highlight and get a well-deserved award. The downside of this approach is the alienation and the gap that is created between people. While encouraging the fighting spirit, people become too encumbered with work and the desire to advance. This can be very stressful and can have a negative impact on the social life of the individual. The tendency to quickly develop his career begins with choosing a good school or college where the individual is prepared to take a good position in the company.

Specialization is what young American businessmen tend to. They want to constantly prove themselves in the business area, and be known, recognized and wanted, or in demand. They often change companies, but remain in the same field of work. Expressed personal interests are not in coalitions with the interests of the company. The individual puts their interests above the interests of the company, but to an extent that does not harm the company. The material above moral motivation emphasizes individualism; moral motives may be called collective and personal material. Money is a very important motivator.

The lack of identification with the company relies on saying "My home is my castle" and so, with the closing time, workers immediately forget about the company and do not think about work. Weekends are in this sense sacred, and not even closest friends are allowed to call about the

job. Respect for hierarchy in decision making indicates that for the business positions are chosen people who have gone through the severe selection. It is assumed that they are the best and their decisions are trusted.

We can see that both the Japanese and American managers are continuously learning and improve their knowledge and skills. American workers are doing it through the narrow specialization and gaining experience in a large number of firms, while Japanese workers improve through TQM (Total Quality Management) developed by the American management model in 1950s (Pavlovic, 2006).

The greatest similarity between Japanese and American management system is continuously improving business and manufacturing processes and the development of the most valuable resources - human resources.

CONCLUSION

The common thing for these two types of management systems is that people, in extreme cases, neglect their family life to commit themselves to their work and career. Some do that to provide for the very same families and society with certain goods, others just to earn more money. Even though the goals are different, time and effort put into work are almost the same.

Stress is considered to be the 21st century disease. In this kind of business environment stress is very common. Medical experts are still identifying its consequences. Money earned is often spent on stress treatments. Time invested into work to provide for the family loses its purpose if the family is estranged or even broken. Families are often victims of this type of work engagement, and children become emotionally neglected. In Japanese management system people live to work, while in American they live to earn.

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CATEGORICAL CERTAINTY OF THE NOTION OF A 'PUBLIC PROJECT'

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ABSTRACT

This paper considers problems of categorical certainty of a "public project" notion addressing the challenges of globalization and formation of the 'welfare state' model. The paper also studies evolution of the notion in different theories such as social utopia, social transformation, social engineering (political science) and structural functionalism, and emphasizes the ambiguous orientation of processes of social engineering, their subjectivity, and incomplete compliance of project selection with the criteria of social and cultural appropriateness. The findings identified three essential economic functions of public projects, namely redistribution, support of pluralism and implementation of social change. A need is proved for determining three aspects of categorical aspects of the notion, i.e. substantive, institutional and organizational aspects.

Keywords: public project, social engineering (political science), socio-cultural process, social change.

INTRODUCTION

The process of adaptation of both global and Russian economies to the challenges of the global crisis that began in 2008 revealed inconsistency, incompleteness and inadequacy of many economic models and definitions. Analysis of contemporary sources shows that the latest economic development concepts put a greater emphasis on the formation of a social state model (welfare state). Among the characteristic features of the post-industrial welfare state model are balanced relationships of 'state-society-economy', use of major social ideas as leading integrators and key factors in the process of modernization; application of social criteria in evaluating the effectiveness of any economic projects ranging from scientific and technological breakthroughs and shifts in distribution of global productive forces to optimization of industrial relations at the micro level; an aspiration to achieve national consensus on long-term development; defining a nation-specific formula of modernization that takes into account natural, human and socio-cultural factors, expanding the range of social policy including issues of social development, improvement of social stratification, analysis of integration and globalization processes.

In our view, implementing the above mentioned strategies, taking a positive and consistent approach to transition to the welfare state model make planning and implementation of national, regional and institutional public projects most relevant.

Opportunities to strengthen processes of social engineering and design are largely related to understanding a public project as a social phenomenon. Despite the widespread use of the terms "project" and "public project" in modern economic literature and business practices, they are still characterized as polysemic and heterogeneous, and, in our opinion, not enough reflected on.

PROBLEM DESCRIPTION

Unlike the concept of a "project" as developed in engineering, economic and management disciplines, the concept of a "public project" has been largely studied by sociological schools and

strands in the context of social planning. As A. Karpovtseva points out in her paper, in Soviet and Russian sociology, the term "project" is on the whole used in three senses: 1) a full cycle of research into some problem; 2) a model for a future object; 3) a general concept of the social system or a major social institution (Karpovtseva, 2010). It is of great importance that in this interpretation the terms "project" and "the concept of a social institution" are used together to show their interdependence and interaction.

In V. Lukov's paper public project planning refers to an action taken by an individual, a group or organization aimed at achieving social goals and localized in place, time and resources (Lukov, 2003). It should be noted interpretation of the concepts of a "public project" and "public project planning" developed in close connection with a number of sociological theories and approaches such as social utopia, social transformation, social engineering and structural functionalism.

Creation of social utopias and anti-utopias Plato, T. Moore, E. Toffler, G. Orwell et al. tracing back to the work of Thomas Moore (1478-1535) "Utopia" of is the development of ideal projects of rational and equitable future. In the context of utopian theories a public project is an abstraction, a detailed plan of the ideal social structure of society, state or organization. We believe that relevance of this approach is in its normative and creative nature. Utopias, as well as anti-utopias and dystopias, are models of social reality, forms of social forecasts that allow to affect the society's value system, to warn against the negative consequences of incorrect social decisions.

Within the framework of social engineering (Popper, 1957) a public project is no longer a plan or an abstraction, but an activity-based system which includes making rules to influence social processes, determining the sequence of such impacts, evaluating their performance, and selecting the most effective methods of social change. Theory and practice of social engineering are developing to create provisions and tools for optimization of industrial relations. Relevance of such practices is primarily seen in a multidimensional approach to the concept, in justifying the application of design techniques to smooth out social conflicts and contradictions.

In structural functionalism E. Durkheim, T. Parsons, R. Merton, A. Schütz et al. it was suggested to analyze any social systems from the perspective of the interconnection of the system as a whole, its subsystems and social actions. For example, T. Parsons proposed a four-function paradigm AGIL (Parsons, 2002), which in our opinion, is very relevant and can be used for a meaningful analysis of public projects. Adaptation provides interaction with external environment. In connection with public projects this means that a public project matches the value system of the environment. Goal attainment as part of a public project means the rational ordering of its tasks in accordance with the goals set. Integration means supporting conflict-free relationships between individuals, groups, and communities. As a part of a public project it means supporting balanced relationships among a wide range of stakeholders of the project. Latent pattern maintenance refers to role models available to maintain regulatory control, and in a public project it refers to values and attitudes that provide initiation and implementation of the project. An important aspect of social engineering, selected within structural functionalism, is its understanding as rational foresight of one's actions at the individual level.

A theory of social transformation P. Sztompka, T. Zaslavskaya, V. Yadov et al. considers public projects from the perspective of social change and deep transformation of society (Yadov, 2009; Zaslavskaya, 2004). We believe that important aspects of further development of the concepts "public project" and "social engineering" are, firstly, a meaningful study and structuring of the concept of social change, and secondly, the conceptual definition of modernization.

A theory of social transformation proposes to analyze real changes, often contradictory and reversible, in open social environment, based on activity approach, defining three vectors, namely a vector of institutional reforms, a vector of socio-structural change and a vector of human potential. Institutional changes refer to changes in the standards of economic and social interactions; socio-cultural changes refer to changes in configuration of social stratification by moving towards one

that allows every citizen to fulfill him/herself most effectively; the vector of human potential involves four components, namely socio- demographic, socio-economic (employment, quality of the workforce), socio-cultural (level of education, sense of justice, cultural traditions and mentality), and finally, innovation and activity potential (Yadov,2009). In our view, all the above-mentioned components are extremely important for defining the objectives and capacity of a public project, as well as assessing its effectiveness.

Within the framework of the theory, the term "modernization" for modern transformations is defined as follows: "modernization is an increasing capacity for social change in order to increase competitiveness in the world system" (Zaslavskya&Yadov, 2008)..Having in mind interpretation of a public project as a social transformation, this definition shows the essential interaction of concepts, and makes the impact of public projects on modernization processes relevant.

According to V. Lukov's classification, three different approaches to social engineering have evolved in modern Russian sociology, namely object-oriented, problem-oriented and subject-oriented (thesaurus) approaches (Lukov, 2008).

The object-oriented approach Z. Toschenko, V. Kurbatov, N. Aitov et al. defines public project planning as designing "social objects, social qualities, social processes and relations" (Kurbatov&Kurbatova,2001).Within the framework of this approach a public project refers to creation or improvement (reconstruction) of an object, process or relations which play an important socio-cultural role in a particular world-system. An essential element of the approach is the scientific validity of forecasts and decisions taken during the process of project planning. As Z. Toschenko points out, "project planning is a critical stage; it requires knowledge of the laws of social development. It should not rely on people's subjective desires and aspirations, no matter how well-intentioned they may be. One can get rid of subjectivity while planning a project only with the help of scientific methods" (Toschenko, 2001).It is quite logical that within this approach social scientific validity, accuracy and specificity of goals are defined as characteristic features of a public project. Key characteristics of a social object are as follows:

- contrariety;
- multi-directional development (several paths of development);
- impossible to describe by any finite number of terms of any social theory;
- influenced by many objective factors;
- influenced by many subjective factors, for example, a researcher can evaluate maturity of a social object in different ways, etc.

The undoubted advantages of the approach include the study of regulatory requirements for a public project, a description of specific features of a social object, yet allegations of complete exclusion of subjective factors and opportunities for scientific validity and objectivity of social predictions seem debatable. Experience has proved that a fairly large number of public projects are initiated and implemented based solely on the need of the project actors for self-fulfillment, their subjective perception of the world and social issues.

The problem-oriented approach T. Dridze, E. Orlova, O. Yanitsky et al. is more focused on the predictive, diagnostic component of public project planning, the concept of a public project here is minor. The main emphasis of the approach is on "developing a specific social technology focused on the integration of the humanitarian knowledge into the process of developing alternative samples of solutions of current and future significant social problems based on the data of socio-diagnostic studies, available resources and planned development goals of the social situation"(Dridze,2006). Thus, a public project is primarily a multivariate and science-based solution of significant social problems. We share the view of V. Lukov that one of the major theoretical achievements of this approach is development of issues concerning social infrastructure of a project, participation of all parties involved in making decisions that affect their lives (Lukov, 2008).At the same time, criteria of significance of a social issue and subjects of assessment in a social situation.

The subject-oriented or thesaurus approach developed by V. Lukov, is based on recognition of the project creator's thesaurus as the main source of the project idea. Broadly speaking, thesaurus (from Greek 'treasure', 'treasury') is interpreted as a system of values, attitudes, knowledge of reality possessed by an individual or a group (Shreyder, 1971). Thus, the thesaurus approach establishes a link between impulses, real needs of the medium and specific circumstances of public project planning, and social subjectness is considered sine qua non of a public project. V. Lukov justifies relevance and modernity of his approach by the following characteristics of social organization, transformation of the tradition and its regulatory role, fragmentary nature of the perceived world, high speed and low predictability of social change. In the framework of this approach, a public project is a targeted authorial scheme of positive social innovations with limited resources for its implementation (Lukov, 2008). In our opinion, this definition is of much interest from two perspectives. First, from the perspective of establishing a connection between the project and the social innovation, and secondly, from the perspective of providing value substantiation of social change.

Within the framework of modern management theories, which keep on the sociological trend, a project is considered from a positivist point of view. In an extended version of the Eurasian project management standard (2008) a public project is seen as a project implemented in various spheres of state and society, the result of which is to change a social actor or object, process or phenomenon to get a better future, for example, creation of models of social phenomena, social institutions, new forms of social structure and social life and development of control systems, laws, etc., which lead to some social changes. A public project is characterized by profound study of social problems and includes measures of both socio-diagnostic and organizational and managerial (technological) provision.

By definition of V. Kurbatov and O. Kurbatova a public project is a social innovation designed by the project initiator, aimed to create, update, or maintain material or spiritual values in the changed environment, which has space-time and resource limits, and whose social impact on people is considered to be positive (Kurbatov & Kurbatova, 2001).

Modern Polish economists E. Palinko and M. Szabo make the following general conclusions based on the analysis of a wide range of public projects supported by the European Union, "In general, the goal of public projects is to increase social welfare and social capital. Public projects implemented at local, regional, national or international levels should be referred to as projects that stimulate investment in improving infrastructure, environmental protection, energy efficiency, health and education. The purpose of public projects is to create value for different social groups" (Palinko & Szabo, 2012).

All the above-mentioned interpretations are similar in their positive trend towards the best option for development, creation of value and positive social innovation, positive social implication, etc. Importantly, a positive orientation of the project, in our opinion, does not mean optimality, and cannot be interpreted as progress or unambiguous movement toward social expediency. Modern evolutionary theory has identified a number of forms of socio-economic and technological dynamics that are in contradiction with defining the course of social development as optimal. In our opinion, these include the following similar phenomena: "chreod effect", i.e. development following the selected, sub-optimal or even a dead end path (Nesterenko, 1997); "blocking effect", i.e. creation of obstacles preventing individuals or organizations, who benefit from the use of the existing rules, from changing the rules (North, 2007) and "cumulative technological effect", i.e. successful introduction of not the most efficient technologies, including public ones, but randomly selected at the initial stage and fixed due to an increasing return (Arthur, 1987). We would like to emphasize that manifestations of all the above mentioned effects suggest that social change is a complex process with ambiguous orientation, and selection of projects does not always meet the criteria of social and cultural appropriateness.

Apparently, constantly evolving complexity and multi-dimensionality of public projects, growing number of their socio-cultural aspects is forcing the researchers to give up the attempts to create a universal definition of the term. It is a widely recognized approach to interpret the essence of a particular concept through description of its characteristic features.

The following are social features of a public project as listed by K. Schwalbe, a project management theorist:

- there is a unique, well-defined objective;
- a project is limited in time, the start and finish of a project are well-defined;
- in the course of a project the initial general drafting and descriptions gradually become more detailed and specified at the later stages;
- there is a need for different types of resources;
- there is a major customer or a customer, who usually defines the objectives of a project and provides funding;
- there is uncertainty due to the uniqueness of a project (Shwalbe, 2009)

From our point of view, these systems of features are of great interest for a clear distinction between project activities and other forms of social activity.

V. Agranovich and A. Moiseeva determine the following features of public projects (Agranovich & Moiseeva, 2008):

- social development of human resources. Include programs and projects in health, education, science, arts, sports, and media;
- social services for the population. Concentrated on the system of consumer services, housing and communal services, consumer goods trade and catering;
- social welfare. Include social care, insurance, pensions, labor safety, security and public order.

This set of features is quite complete and, in our opinion, could serve as the basis for classification of public projects.

Unlike commercial projects, public ones are characterized by the following (Palinko & Szabo, 2012):

1. The necessity of a comprehensive approach to assessing the results of a project from the standpoint of value creation for social groups (communities), their immediate medium and environment (indirect effects of a project should always be assessed);
2. Delayed effect over time, which makes it difficult to forecast and evaluate;
3. Positive effect for targeted social groups and zero or negative effects for other social groups (for example, projects related to tax incentives and tariff increases).

This system of features is relevant for initiating public projects in terms of assessing their viability, effectiveness and efficiency.

RESULTS AND CONCLUSIONS

Different approaches to the definition of a "public project" demonstrate the diversity of researchers' views on the matter. When priority is given to one of the substantive or structural aspects of a public project, it is impossible to give the only true definition of the term under study, leading to differences in the understanding of this socio-economic phenomenon. It probably makes no sense to set the task of launching a single umbrella term, it is important to achieve the understanding of the content of the theoretical and empirical studies carried out in relation to public projects and their relationships with other elements of the social and economic system of society.

We believe that in terms of defining the essential aspects of public projects, it is important to list their major economic functions:

- Redistribution. Public projects channel funds from wealthier to less wealthy population, thus directly or indirectly contributing to the existing distribution system of taxation.
- Implementation of social change. Public projects that are not related or are indirectly related to market regulators and political constraints may initiate and maintain positive social change processes.
- Pluralism. Public projects promote diversity and differentiation of thinking, in cultural and educational areas, attitudes and practices to protect public interests. The major effect here is that public projects promote greater diversity and tolerance. In addition, it is often the public projects that initiate "search procedures" to address political, economic and cultural challenges of our time.

The analysis of sources suggests that the existing definitions of a public project do not fully reflect its nature and characteristic features, including those relevant at the present stage of development of the Russian economy.

To represent a public project as a category suitable for the system of relations, it is necessary to conduct a number of methodological and theoretical studies to define the following three aspects, content-related, institutional and organizational.

In the content-related aspects there is a need for defining economic and historico-genetic components, as well as to show interconnections between them. The economic component should be clearly structured, highlighting the basic and derivative relationships, i.e. project actors, project objects, their relationships, economic interests and priorities. Institutionally, it is necessary to reveal the influence of norms of economic and social interactions on a project, to determine the role and functional potential of public projects in the formation of social capital, harmonization of the relationship in the triangle of "state-society-business". The organizational component means defining the key actors of public project planning, mechanisms of their coordinated interaction, capabilities and limitations of public project management.

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MODERATING EFFECT OF NATIONAL ORIGIN ON RELATIONSHIP OF ORGANIZATIONAL CULTURE AND JOB SATISFACTION

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ABSTRACT

This paper represents results research of moderating effect of national origin of companies on relationship of organizational culture (according to Globe project), and dimensions of job satisfaction. The research included 256 middle managers who work in domestic (183) and 73 managers who work in foreign companies in Serbia. Relations between some organizational culture dimensions and facets of job satisfaction are moderated by the national origin of companies. Managers are given directions in starting appropriate activities oriented towards changes in organizational culture in their companies through explanation of relationship of OC and JS in order to improve organizational results.

Keywords: organizational culture, job satisfaction, national origin of companies.

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ENSURING INFORMATION FOR THE PUBLIC IN CONNECTION WITH CRITICAL INFRASTRUCTURES

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ABSTRACT

Critical infrastructure (CI) protection has been presented markedly in secure issues since the beginning of the XXI. century. Recognizing the physical and IT vulnerability of CI-s leded the way to the targeted and conscious protection of those services and facilities, which guaranteed the fluency of everyday life. Related to the critical infrastructure protection (CIP) has appeared a lot of excessively diversified task system, with the responsibility of a wide circle of stakeholders. Examining the physical protection of a CI, there are numerous technical, safety and personal requirements. Looking the IT security, must be taking into consideration a lot of sub-elements (eg. internet, internal networks, energy supply, protection against intrusion, etc.). It is evident that CI-s ensure the functioning society, get to huge number of people, as well as their significance is much more perceptible if they are not available. Related to the above it is important to enlarge the „CIP capacity building” with public information by the direct and indirect effects for the population. In my study I’m striving to draw up an informative methodology for ensuring the necessary and sufficient knowledge for the public – considering for confidentiality – about CI-s and their protection.

Key words: critical infrastructure protection, public information, principle of confidentiality, necessary and sufficient knowledge, preparing population

CRITICAL INFRASTRUCTURES IN GENERALLY

Infrastructure, as a terminology used by the European Union means systems of interdependent networks, which include such industry, institutions and capacities, that are able to ensure the reliable flow of products and services, the uninterrupted operation of governments and the society as a whole. One of the most expressive definition says that infrastructure is „*a totality of those tools and institutions related to production, which are not a direct integrated part of the process of production, but essential requirements for it*” (Kovács, 2011.). According to the above infrastructures have the following properties in general:

- large horizontal and vertical expansion,
- limited applicability,
- capacity and service efficiency,
- state-owned,
- multitudinous stress – significant impact on the population,
- production and maintenance costs,
- operational and service needs.

All these are expressing that there is a complex dependence between infrastructures providing services and the information society of the XXI century. These points to the fact, that we can find several determinations for critical infrastructure as well. The definition of the USA denominated „*the totality of physical or virtual systems and installations*” (US PATRIOT ACT, 2001.), while NATO Senior Civil Emergency Planning Committee concretized the scope of critical infrastructures as „*physical tools, services, information systems*” in 2001, European Union said at the same time, that critical infrastructures are „*physical tools, services technology facilities, networks and assets*” (EU – COM(2005) 576 final, 2005).

Independently from the above every definition is nearly the same if we take into consideration that injury, loss, or annihilation of critical infrastructure elements may weaken security, economy, public health and working governments as well.

The most important property is interdependency, which can be aggravated by two more circumstances as specialities:

- an infrastructure – through its function – can be exposed to various risks, which make a higher level of vulnerability (e.g.: hazardous industrial facilities in energy sector are more dangerous due to their operation);
- extension and location of an infrastructure can be significant from the perspective of natural threats (e.g. surroundings of tectonic fault lines).

Due to interdependency there is a substantive probability for a chain-reaction caused by loss or injury and make a regional disaster from a local incidence based on the domino principle. Moreover, the spreading of information society and its dependence from IT systems, justify that IT security – as specificity – is one of the most cardinal property of critical infrastructures. However, the issue of critical infrastructure – especially taking notice of the above – is permeated by the principle of confidentiality, which must ensure the continuity of information flow on an appropriate level and also the protection from malicious intent of each critical infrastructure elements.

GENERAL FEATURES OF INFORMATION SHARING

One of the basic elements of the information society is media, namely activities of information service, which actually has been grown as the 4th branch of power. Moreover technological tools and methodology for providing information are continuously improving, so we can interpret our days as the beginning of information (media) age. All type of information has appreciated in this age, and become consumer's and production goods, which can be measurable, examined and researchable, negotiable and last but not least manipulated as well. However it is important to state, that the right to information is entitled to everybody, which is rated in fundamental rights by European Union norms and national legal systems.

It is hard to define information, or its concept. The definition depends on the aspect primarily:

- it can be examined from the point of economical view in order to decision-making;
- it can be studied from a military point of view, as the basis of preparation planning and response activities, but
- it can be looked from a residential aspect if it serves expressly preventive and survival goals.

Any aspect we look at must be definitely emphasized that ensuring information flow and the principle of rational information sharing have exceptional significance. This statement is especially true if we examine the importance of information sharing and preparation related to disasters in history. Due to the example of Seveso¹, or Chernobyl² become visible those essential deficiencies,

¹ It was an industrial accident that occurred around July 10, 1976, in a small chemical manufacturing plant near Milan in the Lombardy region in Italy. It resulted in the highest known exposure by dioxin (TCDD) in residential population: 193 people were injured seriously and 447 people easily. About 600 people were evacuated, approximately 37 000 people suffered from some kind of damage, and 80 000 pets had to destroy. The long-term effects were larger: the number of birth defects increased significantly among newborns, the number of premature birth and abortions grew by 20 %. Dioxin – unlike other poisons – kills slowly, can not be discharged the body, attacks the immune system and has genetically harmful effects.

² It happend 26 April 1986 near Pripyat and Chernobyl, in a nuclear plant in Ukraine. The 4th reactor of the plant had burst into flames – during an experiment – due to a steam explosion, and after a series of explosions nuclear melting occurred. This accident was one of the worst disasters in connection with using of nuclear energy. The lack of protective buildings radioactive waste fell into the western part of the earlier Soviet Union, several parts of Europe, and the eastern part of the United States of America. The authorities

which could have been reduced the seriousness of consequences by supporting prior period information flow in the frame of preparation. It means:

- previous preparation of the endangered population (=passive information sharing) was not provided,
- starting of alarm systems were not or incorrectly accomplished (=active information sharing),
- communication for the basic rules of conduct missed by the assigned authorities (=active information sharing).

The following table contains such accidents, in which the number of victims and the extent of damage could have been reduced by ensuring necessary and sufficient information-sharing in time:

Table 1: Events with serious consequences by lack of information (collected by the author)

DATE	LOCATION	EVENT	NUMBER OF VICTIMS
July 1999	Saudi Arabia	The accident was caused by the failure of a tunnel's ventilation system during a pilgrimage	approx. 1400 people
August 2006	Hungary	During a festive fireworks a supercell thunderstorms reached the capital.	5 dead, several injured people
February 2013	Russia	A heavy meteor impact caused such significant damage in buildings, which were similar to the detriment of an earthquake	approx. 500 injured people

However do not need a tragedy to significant problems caused by the lack of information. More and more natural or technological event occurs in everyday life, which makes temporarily dysfunctions in services ensuring continuity of days. A broad, for several days prolonged blackout, with paralyzed heating, water supply, sewage disposal, air-conditioning and IT systems can cause serious challenges for the modern society as well. All these above – without suitable alternative power supply – may adversely affect the economy, health care, or transport also. The following table lists some events, which substantially influenced the operation of services mentioned above:

Table 2: Events with significant effects on certain services in recent years (collected by the author)

DATE- LOCATION	EVENT	EFFECTS	STAKEHOLDERS
August 2003 USA (8 states) and Canada (1 province)	malfunction	system crash arising from electricity supply disruptions, nearly a week-long recovery period	~ 55 million consumers
January 2009 South-East Europe	Russian-Ukrainian gas debate	the amount of natural gas from Russia via Ukraine has declined by over 60 %, so alternative procurement and using of gas reservoirs were necessary	~ 87 000 consumers
August 2011 Caribbean and East-coast of North America	Irene hurricane (II. tropical cyclone intensity)	uninhabitable buildings, impassable roads, power outage lasting several days	25 victims, thousands of consumers
October 2012 Caribbean and East-coast of North America	Sandy hurricane (II. tropical cyclone intensity)	impassable roads, uninhabitable buildings, floods, permanent interruption of power supply	approx. 70 victims, and 7 million consumers
March 2013 Hungary	extreme snowfall	impassable roads, high levels of congestion, broke off high-voltage lines, nearly a week-long power outage caused by fallen columns	approx. 14 000 people under way, and 300 000 consumers

All the above confirm that the adequate information with appropriate content and made available in time could be essential for handling and survival certain situation. We can see that ensuring authentic, timely, understandable, accurate, necessary and sufficient information have a significant importance for the population and intervening authorities as well.

had been given information the public and to the governments of other countries, so the immediate protection measures have not been made on time.

CAPACITY BUILDING FOR ENSURING INFORMATION

According to the previously submitted definitions, the particular operating specialities and risk factors of critical infrastructures we can determine its vulnerability as well, which can be appraised by several metrics. Related to critical infrastructure protection vulnerability means „every idiosyncrasy in connection with planning, creating and operating infrastructure, which allows disrupting or abolishing operational continuity, as well as it contains other threats arising from dependences” (EU – COM(2005) 576 final, 2005). A number of data are generated in the process of identification and designation of critical infrastructures, and in establishing of defence systems, which can influence the vulnerability in general and have effects for events. However this information alludes to alternative opportunities to handling the lack of affected service and to applicable rules of conduct, especially from a consumer (population) point of view.

Closely related the five principles defined in the European Program for Critical Infrastructure Protection, which significantly determines the implementation today and include the mentioned principle of confidentiality as well:

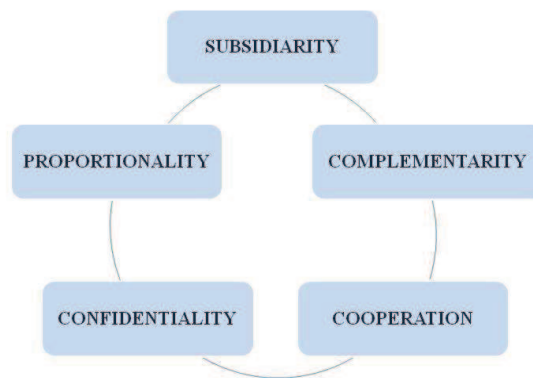


Figure 1: Five principles of critical infrastructure protection (edited by the author)

To this principle it is necessary, that information related to critical infrastructures could not get wrong hands, and this way can be reduced the probability of sudden, serious events and the manipulation of infrastructures. Certainly the classification of security plans in the European Union and all in the member states are closely included. So confidentiality has a special priority in the frame of critical infrastructure protection, as all information represent an exponentially increasing value if related to the operational capability of infrastructures, thereby its vulnerability. Accessing to this kind of data must be reduced to the minimum in order to establish the suitable level of protection, which can not obstruct the appropriate and efficient operation, but secured from unauthorized insight.

Taking all into consideration I have formulated a definition for necessary and sufficient information: such information set related to the critical infrastructure element, which is able to increase the individual ability for protection and response of citizens, to the extent that he or she will be not able to impede the operational continuity of critical infrastructure with malicious acts.

I believe that the possible solution resides in relevant content, frequency and targeted preparation processes. The key of success could not be other than appropriate communication, which must be extended to the preparation before events, the alerting when event occurs and public information in the course of protection and recovery as well. In international level we can find wide public preparation methodologies based mainly on experiences (for example: Federal Emergency Management Agency – whole community approach; western societies – social media tools; Seveso II. Directive – methodology for the obligation of active informing the population), which – similar to Hungary – has not yet a separate part for information sharing in connection with critical infrastructure protection.

In the frame of general preparation of the public I suggest to acquire for every events (potential disasters) independent from local features – in generally: extreme weather, intense snowfall, storms, accidents, staying in big crowd, lack of basic services, etc. –, considering the rules of conduct. In my opinion and research all these can be realized by integration to the preparation system of disaster management in Hungary and in the European Union as well.

However I consider it important, that the assign authorities shall be prepared for basic rules of public information, which can ensure the conditions of immediate and continuous information-sharing. Clarity and credibility should be particular, which can guarantee the adequate reaction from the public and the expected behaviour during the event. At the same time there is a common section between information sharing and preparation, if alluding to the earlier acquired knowledge could increase the persuasive power of information and basically suitable to keep off panic. There are a lot of examples to confirm the above. Recent events (mainly in winter) has been demonstrated in several cases that power supply, which is essential for everyday life, can extremely easy to damage, and the absence significantly limits the possibilities of public information.

Certainly there is a need to determine “target audiences” in connection with preparing public in critical infrastructure protection methods. In defining must be taken into consideration the following:

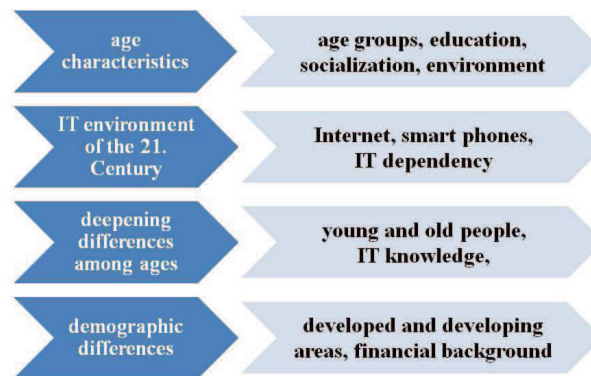


Figure 2: Aspects of researching “target audiences” (edited by the author)

As I mentioned previously, I suggest two types of preparing public for operating and may damaging critical infrastructures: general and sector based preparation, made by disaster management and assigned sectors with service responsibility. Up to the above “target audiences” in general public preparation may include the following three groups:

- administrative actors;
- critical infrastructure (CI) operators;
- society.

The main objectives of general preparation for these groups have not to become acquainted with the whole system of the critical infrastructure, but need to include descriptions of consequences due to any kind of disorders and methods for acquiring rules of conduct as response. In the spirit of governing response rules and the conscious education for security general preparation is intended to guarantee the establishment of civil responsibility, alertness and the basis for ensuring alternatives to an individual-level (e.g.: flashlight, battery powered radio).

In terms of preparation methodology the active and passive information sharing considers to be applicable. It is determined by Hungarian legislation for disaster management and civil protection. For administrative actors and CI operators it is practical to apply the active, direct and targeted methodology, which means trainings realized in classrooms, or with consultation, or by e-learning. Related to the population each type – active and passive – can be productive, it depends on the special target audiences, which must be defined primarily by education and age (e.g.: elementary

school-aged, higher education-aged, people with special educational needs, communities living in the same locality, etc.). There are several opportunities to make available necessary and sufficient information for the public by passive methods: forums, public events, leaflets, informational brochures, etc.

Table 3: Methods assigned to target layers (edited by the author)

TARGET LAYERS		METHOD
administrative actors	persons appointed by leaders of administrative bodies from each sectors chairmen and members of regional and local protection committees mayors	active: classroom, e-learning, consultation, workout types of training
CI operators	owners service staff staff of responsible authorities	
population/ society	participants in public education (by age) participants in higher education SEN (special educational needs) teachers and educators	active: classroom, in curriculum integrated training
	residential communities (urban and rural) civil associations "social media" communities	active & passive: forums, events, periodicals, campaigns

It requires further research to identify the content elements of the general, as well as the targeted, sector based preparation, which need to be adjusted to the system of defined target audiences and methods above.

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THEORETICAL AND METHODOLOGICAL ASPECTS OF RISK MANAGEMENT

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ABSTRACT

The paper is devoted to the problems of risk management in the Russian enterprises. The paper systematizes the main approaches to the definition of the risk and the content of risk management, presents the management methods of negative and positive risk, discusses the concept of «acceptable risk». Author analyzes features of Russian and foreign standards of risk management. Conclusions are drawn on essence and functions of the risk, principles and methods of risk management. The article contains suggestions on improvement the risk management process. The proposed methodological tools of risk management can also be used in foreign enterprises.

Key words: risk, risk-management, acceptable risk

INTRODUCTION

Risk management is a vital element of any activity, guarantee of competitiveness of the enterprise. In the modern economic conditions any enterprise is exposed to risks, so work with risk must be constantly and purposefully. It becomes obvious that without a system of risk management enterprise cannot successfully exist and develop.

Many Russian enterprises do not have risk management, because top-managers believe that they can successfully control problems without risk manager. Other enterprises have a function of risk management, but work in this direction is conducted only formally or for audit reports. Nevertheless, the majority of Russian enterprises concede the need and importance of effective risk management system. That is, risk management must be effective, not formal, and this requires an integrated combination of obligatory, standard risk management procedures with the creation of a full-scale risk-oriented culture of the enterprise. It should be noted that the effectiveness of risk management depends on the equivalent of standard procedures and the development of a risk management culture in the enterprise. One of the problems of modern risk management is not sufficiently formalized procedures of purpose setting and definition of criteria for the effectiveness of risk management systems in enterprise. There are traditional and integrative paradigms of risk management. The traditional paradigm is characterized by fragmented, episodic, limited risk management; each department independently manages risk in accordance with its functions; risk management is carried out mainly in the financial and accounting control and auditing areas and concerns mainly insurable and financial risks.

Integrative paradigm is based on a continuous, all-pervading, correct and balanced risk management, which is coordinated by top-management; each employee considers risk management as part of its work; risk management covers risks-threats and risks-opportunities. Risk management is a complex activity involving both diversity of the concept of "risk", and with the variety of manifestations of risk and opportunities to overcome its negative consequences. This requires a special approach to risk management and formalization of this process.

THEORY

Enterprise activity on different stages and different spheres is fraught with uncertainty. Uncertainty causes emergence of risks. The concept risk is determined ambiguously and often depends at a context of its use. World economic science presents classical and neoclassical theory of entrepreneurial risk. In classical theory, the risk is identified with the expectation of losses that may occur as a result of the chosen decision. The risk here is the damage after the implementation of this decision. According to the neoclassical theory of risk behavior entrepreneur due to the concept of marginal utility. That is, if entrepreneur has two variants, for example, capital investments, giving the same expected profit, he will choose investment in which the smallest fluctuations in expected profits. Neoclassical theory of risk was supplemented by economist John Keynes and got greatest recognition. This theory suggests, that for making decisions in uncertain situations entrepreneur must calculate and consider not only the potential deviation of the profit, but also expected level of profit. In other words, if entrepreneur want to get a great profit, he can sometimes take the risk (Kulikov , 2009).

Each epoch has its own peculiarities in the understanding of the phenomenon of business risk. Some Russian authors, including N.Tihomirov, N. Khokhlov, R.Fedosov and others consider the risk as a possible risk of loss, the probability danger of loss, revenue shortfall. Other authors, such as N. Ryhtikova, D. Sokolov and others consider risk as the probability of deviation from the target, the possibility of underachievement the goal, they don't reduce the risk only to the negative effects, but opposite imply that the risk combines negative and positive aspects.

In the Risk Management Standard of Federation of European Risk Management Association risk is considered also from negative and positive aspects. Risk in the standard presented as a combination of the probability of an event and its consequences. In all types of undertaking, there is the potential for events and consequences that constitute opportunities for benefit (upside) or threats to success (downside) In the national standard of the Russian Federation "Risk management. Principles and guidelines" risk is presented as the influence of uncertainty on objectives. The influence is a deviation from what is expected (positive and / or negative). Risk as the opportunity has at its basis the concept of the existence of the relationship between risk and return. If entrepreneur has higher risk, he will have higher potential revenue, but also above and probable losses. Concept of the risk as a threat is based at the research of negative events, such as financial loss, theft, danger of reputation, damage, or bankruptcy, etc.

The concept which combines the positive and negative risks is the most academic. This concept considers risk as the influence of uncertainty and finally as the probability distribution of possible positive and negative outcomes. Uncertainty is a situation, when you have insufficiency and partial information for understanding the event, its consequences or its opportunities (GOST R ISO 31000-2010). It is believed that the uncertainty is a situation where the probability of occurrence of events cannot be estimated in advance, and the risk is the measurable probability and can be quantified. In general, the risk can be considered as the estimated probability of a deviation from the target under conditions of uncertainty. Thus the deviation can be both positive and negative. In the economic literature you can see following risk function: stimulating, protective, regulatory, analytical, innovative, compensating function of alternativeness and contradictory. Many of these functions overlap in content. In our opinion, the risk has three main functions:

- Analytical function. This function analysis of the enterprise's activity in conditions of uncertainty, and suggests the need to select one or more variants of decision;
- Protective function. This function provides all kinds of undesirable consequences in the enterprise's activity in conditions of uncertainty, using a social, legal, political and economic protection;
- stimulating function. This function stimulates the search of innovative solutions to problems, use the innovative approaches in enterprise management in conditions of uncertainty.

These functions relate to the constructive nature of risk, which researches sources of risk, choice of measures eliminating or reducing the possible consequences of risk as a negative deviation. But we should not forget about the destructive nature, which is manifested in decisions with the unexplored or unreasonable risk and can lead to adventurous and subjective decisions. In order to avoid in the organization of adventurism and subjectivism in management decisions it is necessary to create an effective system of risk management. Diversity of interpretations of the term "risk" in the economic literature leads to an ambiguous interpretation of the term "risk management". It should be noted that the majority of authors under the risk management understand enterprise management directed at reducing or neutralizing the negative consequences of risk.

We consider that risk management is management of the enterprise, which allows minimizing the negative and maximizing the positive deviations from the target in conditions of uncertainty.

METHODS

Main principles of risk management are: the principle of system researches quantitative and qualitative regularities in the economic system of the enterprise the reasons for any decision of any decision based on the overall objective of the system; the principle of scientific justification means that risk management is based on the use of scientific instruments, learning achievements of domestic and foreign experience; the principle of the maximum coverage assumes that the enterprise strives for the most complete coverage possible areas of risk and thus, reduces uncertainty to minimum; the principle of integration involvements in the risk management all divisions of enterprise; the principle of continuity means that risk management is an continuous process; the principle of adequacy is quickly responding to internal and external changes, which are expressed in the implementation of risk; the principle of a reasonable decision is based on a reasonable risk taking.

A risk management standards review methods of risk management from positive and negative aspects. But also FERMA Standard Risk Management is focused on prevention and mitigation of harm, because In the safety field, it is generally recognized that consequences are only negative. That's why METHODS of risk management includes risk control, risk avoidance, risk transfer, risk financing, etc. GOST R ISO 31000-2010 «Management of risk. Principles and guidelines» identifies the following methods of risk management: risk avoidance through the decision not to start or not to continue the activity; the adoption or increase the risk to use opportunities; elimination of the source of the risk; change in the probability or possibility; change consequences; risk-sharing; conscious risk retention. That is, there appear new to the risk management methods: increased risk for use of opportunity and conscious risk retention. But the content of these methods in the standard are not presented.

Thus, all risk management methods can be divided into two main groups of methods for minimizing and maximizing risks.

Methods for minimizing risk include:

- avoidance of the risk, that is an exception threats by avoiding risky operations;
- transfer of risk, that is the distribution of the negative impact of a threat and responsibility to a third party;
- reduce risk, that is the reducing probability or impact of risk events;
- taking risk, that is the compensation for losses by own financial capabilities of the enterprise.

Methods for maximizing risk include:

- use of risk, that is an elimination the uncertainty associated with a positive risk by measures that provide opportunities;
- risk sharing , that is the transfer of part or all of the responsibility for the possibility of a third party, which better able to take advantage of this favorable opportunity;

- increased risk, that is the maximization of the key factors that determine the appearance of the positive impacts and increase the probability of their occurrence;
- risk-taking, that is a desire to take advantage of opportunities in the case of its occurrence without active pursuing opportunities.

The choice of the method of risk management is justified only if it costs less than the effect of its use.

FINDINGS

The risk management system at the enterprise is a complex of obligatory fundamental, organizational, procedural and regulatory aspects of risk management, which if necessary can be adapted to the characteristics of organizations of the real sector of the economy for the purposes of private systems risk management (Sokolov et al., 2013). It seems to us possible to combine fundamental and procedural aspects of risk management and in accordance with this distinguished the risk management system three main blocks: a methodical, organizational and regulatory. Methodological block includes principles, methods and risk management process. Organizational block includes organizational structure and organizational culture of risk management. Regulatory block includes international and national standards of risk management and internal documents of the enterprise concerning risk management.

Process of effective enterprise risk management includes five main elements:

- risk identification - the formation of a complete picture of enterprise risks;
- risk evaluation-full risk analysis on the scope of its impact and probability of occurrence;
- choice of risk strategy (careful, risky, or weighted);
- choice of methods of risk management;
- control - monitoring the effectiveness of risk management, monitoring the current situation, identify new circumstances that change the level of risk.

It is advisable to distinguish four levels of organizational structure creating effective enterprise risk management:

- the Board of Directors, which has responsibility for determining the strategic direction of the enterprise and for creating the environment and the principles of effective risk management. (FERMA. Risk Management Standard);
- risk manager, which implements the risk management program at the strategic and tactical level (development of policies and regulations of risk management);
- risk management unit, which identifies, assesses risks, selects and implements methods of risk management;
- relationship risk management unit with other business units, which is realized by increasing the importance of risk management within the organization, exchange information and experiences.

Effectiveness of risk management depends on the development of a risk management culture in the enterprise. Culture of risk is characterized by a degree of awareness of the management needs for effective risk management in the enterprise. This includes determining how the enterprise prone or tolerance to risk in their daily activities (Holmes, 2007). Main characteristics of strong risk-oriented culture is the leadership style of management and a well-developed strategy, realizing staff role in risk management, strong infrastructure of risk management. In the risk management process, enterprise must focus on the international and national standards, and in accordance with them to develop internal documents, such as "Policy of Risk Management", "Regulations of Risk Management" and other documents that formalize the risk management process.

DISCUSSION

Russian business is characterized by a high degree of uncertainty and unpredictability that makes the company to implement a risk management system .

Interactive survey "Risk Management in Russia 2013" of more than 40 top managers and representatives of risk management conducted by rating Agency «Expert RA» has shown:

- 42 % of respondents believe that the effective operation of the risk management unit is possible only if owner of the company is interested in it;
- 31%of respondents consider that unwillingness of owners to invest in the development of risk management units is a key risk management limiter;
- 37 % of respondents believe that risk management units must include from 2 to 5 employees;
- 59 % of respondents consider that risk management unit should be accountable to the Board of Directors.

Thus, most of the leaders of Russian companies begin to think about creating an effective system of risk management. This is not to forget about the problems that exist in the field of risk management in Russia. One of the problems of risk management is not sufficiently formalized procedures of risk management in enterprise. Formalization of management process is accurate description, as well as the development and implementation documents (procedures, job descriptions, regulations and so on), which regulates this process. Managing risks, many Russian companies suffer from two extremes. First - is the lack of any process at all, which usually leads to inconsistency in the actions and unqualified decisions. The second extreme is connected with the fact that all the attention, time and effort are directed to the formal aspect of the process.

In this regard, at formalization of the process of risk management must consider the potential costs of its implementation:

- methodological. The process of risk management should not be difficult, otherwise staff cannot use it. The level of detail of the description of the procedures can lead to difficulties with understanding the documents, information redundancy, and thus lost a shared vision of the whole process;
- organizational. Explanation of benefits that employees receive of formalizing their activities; shifting the focus of the staff activity from simple implementation on continuous improvement.

Formalization predetermines active risk management in an organization that includes continuously implementation of measures for the identification, assessment and control of exposure to risks, and creating a stable developing dynamic system of risk management. Approach to effective risk management involves the management of all types of existing resources (production, personnel, material, information, etc.).

CONCLUSION

Risk is the estimated probability of a deviation from the target under conditions of uncertainty. Thus the deviation can be both positive and negative. Risk performs analytical, protective and stimulating functions. Risk management is management of the enterprise, which allows minimizing the negative and maximizing the positive deviations from the target in conditions of uncertainty. Main principles of risk management are the principles of system, of scientific justification, of the maximum coverage, of integration, of continuity, of adequacy, of a reasonable decision. Risk management methods are divided into two methods for minimizing and methods for maximizing risks.

Effective risk management system should be based on the concept of «acceptable risk». This concept appeared in contrast to the concept of «absolute security», according to which it is practically possible to exclude any probability of negative effects of risks. While the concept of “acceptable risk” is not how to do business completely safe, but how to reduce the risk to a level, when it ceases to be dangerous. The question of how much risk can be considered acceptable, is one of the most difficult and important in the practice of risk management. The easiest way to establish the level of acceptable risk is the definition of risk thresholds in the form of an interval of possible values of criteria-based indicators. As criteria indicators can use values numerically expressing the size of the risk, for example, of the damage or the probability of its occurrence. In other words, the concept of “acceptable risk” presents search for golden mean, namely the definition of a compromise acceptable risk level that will correspond to certain balance between the expected benefits and the threat of loss.

IMPLICATIONS

The adoption of the concept of «acceptable risk» entails a number of consequences related to the organization of risk management: first, risk management is a process that should begin at the stage of development of the organization's strategy with its owners, which determines the maximum level of risk; second, despite the integration of risk management into the overall management process, it is advisable that risk management must be institutionally independent from other functional units and directly subordinate to senior management; third, a high level of risk cannot be a reason for non-acceptance of decisions, the concept of “acceptable risk” provides an opportunity to assess the impact of risk, and allocate resources to concentrate not only on the prevention of exposure to risk, but also on the advance preparation for them.

To create an effective risk management system the enterprise's management must: to recognize the need for risk management; to ensure the scientific validity of the risk management process; to determine the responsible manager for the development of risk management in the enterprise; to make an optimal combination of centralization and decentralization of risk management; continuously to improve the skills of managers on risk management; to take into account the information on actual losses and their causes for past periods and to forecast the tendency of their change; to develop a risk management program, using an integrative approach, that is, an integrated approach to the risks and opportunities of the enterprise. Risk management is one of the most important logical components of the organized process of functioning of enterprise, and therefore it must be integrated into this process, to have a science-based strategy, tactics and operational implementation. It is necessary not only to manage the risk, but also to constantly improve the instruments for its implementation.

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APPLICATION OF PROCESS QUALITY TOOLS TO PROVIDE HEALTH CARE SERVICES

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ABSTRACT

The quality of health services has been recognized as one of the most important features of the health care system. With application of quality tools such as Ishikawa diagrams, Pareto analysis and others it is possible to increase the efficiency and effectiveness of providing health care services. Around the world these quality tools have been used for a long time and recently began its implementation in Serbia in the health care sector. This paper presents the application of quality tools to the process of providing health care services and as an example has been taken the medical institution Dom Zdravlja Niš. The problems were identified, that users of this facility faced with and the proposed improvement is presented. The overall objective of this paper is to investigate the possibility of using quality tools in the health care services and to presents benefits that can be achieved through their implementation.

Key words: health care service, quality tools, Ishikawa diagram, Pareto analysis

INTRODUCTION

The cost of health care services is increasing at an alarming and unsustainable rate worldwide. Admittedly, a significant percentage of these cost increases can be attributed to an aging population, technological advances and, most important, health care process inefficiency. In the last few decades, the necessity for quality and safety improvement initiatives pervades health care services. Quality of health care services is defined as: "The degree to which health care services for individuals and populations increase the probability of desired health outcomes and are consistent with current professional knowledge" (Lohr and Schroeder, 1990).

Health care service requires continuous and innovative approach in order to remain competitive, cost efficient and to provide high quality of service. Methods for quality improvements generally highlights the importance of identifying a processes with an outcomes that are not at satisfying level (inefficient processes), measuring the key performance attributes, using analysis to design a new approach, integrating the redesigned approach with the process, and reassessing performance to determine if the change in process is successful (Shojania et al., 2004).

Quality improvement methodologies, like Zero Defects, Six Sigma, TQM, Lean and Lean Six Sigma, have come forth in the process of improving quality in health care services (Varkey et al., 2007; Furman and Caplan, 2007; Womack and Jones, 1996). Lean Six Sigma, as one of the most successful and well-known methodology for application in industrial processes and services, has also possibility to be applicable in field of health care services. Organizations can utilize Lean Six

Sigma to continuously improve their business processes. Lean and Six Sigma are process improvement methodologies that have been used throughout industries as varied as the healthcare industry to car manufacturing (Stewart, 2005), in order to improve their processes and respond to customers' needs. To be effective in implementing Lean Six Sigma, managers and employees must be given the tools to track results and measure process performance. For this purpose, so called quality tools are used.

This paper presents the quality tools applications, such as Pareto analysis and Ishikawa diagram, which are an integral part of this methodology and represent the basis of the Lean Six Sigma methodology implementation process. The aim of this paper is to show in what purpose the quality tools can be used in health care services. The medical institution "Dom Zdravlja Niš" has been taken for an example. In medical institution "Dom Zdravlja Niš" have been recognized many different critical processes, where the Lean Six Sigma can be implemented. The process of health care service in physical therapy has been chosen for analysis.

DETERMINATION OF VITAL MINORITY

Pareto analysis, named after the Italian economist Vilfredo Pareto, was developed as diagram method for grouping causes of problems according to their relative importance. It represents a procedure of selecting priority problems to be resolved. One of the good and simple way to differentiate the most important problems of others is to apply the ABC method, which was first used by Vilfredo Pareto.

The field of application of this method is widely:

- in exploring opportunities to reduce losses,
- reducing delays in the production process,
- rationalize consumption of materials,
- exploring the profitability of production program etc.

The basis of this method is the idea of "several significant" and "many trivial" parameters. It often happens that more than half of properties of a problem are result of the same cause. In this situation, much better approach is the localization and elimination of the most significant parameters, than an attempt to eliminate all causes at the same time. Eliminating a significant cause will result in dramatically raising the quality with minimal effort involved. In this regard, in the Anglo-Saxon literature is often mention the rule 80/20. It means that 80% of problems occurring in 20% of the units or at 20% of employees. Or 80% of the welfare society is concentrated in 20% of the population, or in terms of customers, 20% of customers bring 80% income to a company (Grosfeld et al., 2007). By introducing appropriate corrective and preventive measures, one can prevent the problem from ever occurring in the future (Stoiljkovic et al., 2011).

Pareto method is the most widely used, namely is one of the seven basic quality tools that is most used in problem analysis. It has different names in the literature and some of them are Pareto diagram, Pareto principle, principle of 80/20... The basic principle of this tool for quality management is very simple. Pareto diagram represents a modified histogram - the horizontal axis is applied the error types (the biggest on the left, then the rest in descending order). The number of errors is read on the left and the frequency of the right. The line that moves from the left to the right represents the cumulative value of the error number (on the left) and the percentage (on the right).

CAUSE AND EFFECT ANALYSIS

Ishikawa diagram is a tool that helps in identification, sorting, and displaying possible causes of a specific problem or quality characteristics. The diagram graphically shows the relation between specific consequence and all factors that influence the consequence (Ishikawa, 1982; Enarsson, 1998).

Basic characteristics of this method are:

- Clear visual representation of the possible causes of the phenomenon that is the subject of observation and the consequences of their actions;
- Provides the ability to analyze the relationship between individual impact - cause of their importance for the observed result and the overall structure of the possible causes - one cause can occur in several places in the diagram (in several different groups of samples);
- Relationship of causes and consequences. Interconnected causes are in general qualitative and hypothetical character and serve as a basis for more efficient problem solving method than any other suitable method.

Considered separately cause-consequence diagram is not sufficient to solve the problem. It only refers to its underlying causes, whose effects are maximized and that should be affected, as well as to cause and effect relationship. It should be identified all relevant factor through a discussion of a number of people. The factors with the strongest impact on the performance, should be determined from those indicated in the diagram. The diagram is constructed by starting from the consequence which is inserted in the right side of the diagram. Further step is drawing of the “fishbone” diagram and attaching categories to it. The diagram is developed by considering all categories and asking WHY a certain category affects the result. For every cause, the same process of construction is repeated, and the question WHY is asked for every level. It can be concluded that the method for constructing Ishikawa diagram consists of considering all possible causes and their organization into categories and subcategories.

QUALITY TOOLS IN HEALTHCARE SERVICE

There are numerous examples of successful applications of Lean and Six Sigma in Health services. Some examples are given below. An application of integrated Lean Six Sigma at a Dutch hospital led to reducing the complexity of hiring part-time clinical staff, optimizing operating room scheduling by designing a new pre-surgical admissions process, and developing a new work planning system to expedited completion of equipment maintenance requests (De Koning et al., 2006).

As is shown in (Caldwell et al., 2009) during the first year of application of Lean Six Sigma Morton Plant Hospital achieved these results:

- Improved patient satisfaction more than 50%, from 61% to 95%;
- Decreased length of stay 21% in the main Emergency Department (ED) and 61% in Express Care, the hospital’s fast-track urgent care section of the ED;
- Decreased left without treatment from 3.9% to below 0.5%.

By implementing Lean Six Sigma, St. Joseph’s Hospital changed the Emergency Room patient flow, allowing the hospital to treat at least 10,000 more patients annually. St. Vincent Indianapolis Hospital made a 78% cut in the number of steps emergency department nurses take to get supplies, and the Mayo Clinic’s Rochester Transplant Centre reduced the cycle time from when a new patient made initial contact to setting up an appointment from 45 days to 3 days.

As a direct result of implementation the Lean Six Sigma Western Maryland Health System achieved:

- A \$2.5 Million improvement in financial operating performance in the first 100 days.
- A 30-hr reduction in hours worked per day.

West Jefferson Medical Centre materialized application of Lean Six Sigma, which is reflected in the following:

- A \$3.2 Million improvement in financial operating performance in first 60 days.
- Identified more than \$5.0 Million in savings opportunities.

Another good example of good benefits of implementation of Lean Six Sigma is Miami Baptist Health Centre, who was able to achieve:

- ED man-hour worked per patient visit decreased by 22%.
- ED Length of Stay (LOS) was reduced by 41%.
- Patient Leaving without Treatment (LWOT) decreased from 8% to less than 1%.

- Direct admissions increased by 181%.
- Patients held in ED due to bed availability decreased 37%.

CASE STUDY – MEDICAL INSTITUTION "DOM ZDRAVLJA NIŠ"

As one of the problems that is faced by patients in department of physical medicine in medical institution "Dom Zdravlja Niš" is long patients waiting to receive treatment. This is the reason why these quality tools are applied in order to determine the long lines for receiving therapy for 2-3 months. Based on data collected for 2013, the Pareto diagram is formed as it is shown on figure 1. It was considered a time frame for getting treatment, depending on the medical condition of patient as well as the patients that are for the first time faced with health issues (Table 1):

- Patients with chronic disease - represent a group who have regular treatment for a certain time period, their condition is not alarming and this group includes patients who have problems with rheumatism and related diseases, chronic character.
- Patient, the first coming - represent a group of patients that are coming to this department for the first time with certain medical problems.
- Personnel working population - represent a group of patients that are working active, that are employed. Represents a secondary category for shortening period of sick benefit.
- Patient with acute state - represent a group of patients whose situation is alarming and whose condition does not allow disposal of therapy, so treatment should be applied immediately.

Table 1: The number of patients categorized in groups based on disease type

Problem	Patient number	Cumulative percentage
Patients with chronic disease	89	62%
Patients, the first coming	35	87%
Personnel working population	12	95%
Patients with acute state	7	100%
Total	143	

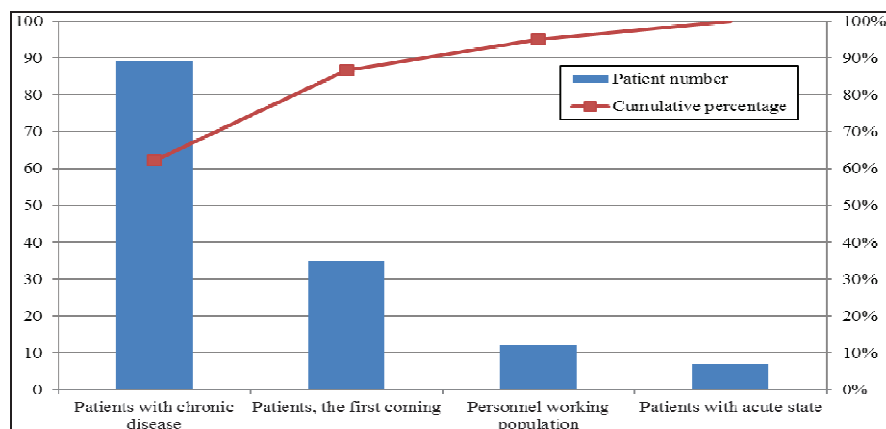


Figure 1: Pareto diagram of patient number that have been waiting for therapy

In the first step of Ishikawa analysis of consequences, which is defined, is related to the occurrence of problems in health care institution, in this case the medical institution "Dom Zdravlja Niš". The main problem is related to the long duration of the process, i.e. patient waiting for treatment. Based on the analysis given in the diagram, can be seen the most important causes of this problem. Figure 2 shows a Ishikawa diagram.

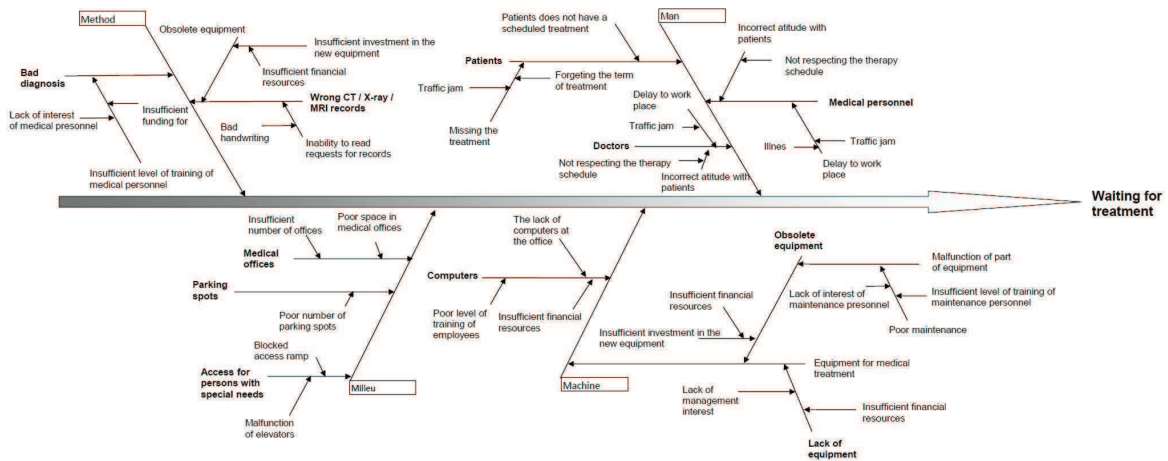


Figure 2: Ishikawa diagram

In segment "Men", i.e. human factors, the biggest problem is irresponsibility and negligence of doctors in terms of delays and receiving patient not respecting lines and without an appointment schedule. The problems related in the segment "Milieu", i.e. environment and management, are the lack of working space as well as constant crowded environment around this medical institution in terms of traffic. In segment "Machines", i.e. equipment that is used in the process, the problem is the worn-out apparatus for patient treatment, as well as the deterioration of lifts that are also of crucial importance, since their dissolution creates a huge problem, the availability of doctors to patients. Finally, the problems related to segment "Measurement" relate primarily to the wrong diagnosis as well as reports of diseased and treated individuals. Analyzing the given diagram we can come to the conclusion that the most important influence has human factor, i.e. "Men" and equipment, i.e. "Machines". Improvements within the segment of equipment can be achieved primarily with large financial investment funds for apparatus and medical equipment that is used in this department. Also, something that would speed up the administration process and reporting patients is the use of information systems and equip each clinic room with a computer, as well as the introduction of prescribed procedures in the order of activities execution (steps). Regarding human factor, problem solving of negligence and irresponsibility of doctors as well as receiving the patients without scheduled treatment, it will solve the major problem of patients waiting and will reduce their dissatisfaction.

CONCLUSION

More and more medical institution are focused on acute health care, by treating only patients with conditions that require relatively intensive medical care and sophisticated care in treatment. The health system of the Republic of Serbia is necessary to get closer to the health care systems in developed countries, especially in terms if security and providing high quality health services for the benefit of all citizens. Providing quality and secure services in health care, specifically in the case of the medical institution "Dom Zdravlja Niš", involves intensive work on introduction and implementation of quality tools in order to build a system of continuous improvement, assurance and control services. In accordance with the system of improving the quality and safety of health services, each health institution should define its processes - prevention, diagnosis, health care, treatment, rehabilitation, administrative and other support processes. The implementation of quality tools ensure that the correct procedure is carried out in a consistent and controlled manner. In other words, the quality tools Lean Six Sigma methodology assume that if the identified processes in organization, if certain sequence and interaction of these processes, if certain criteria and methods for the conduction and process control, if there are adequate resources, measurement, monitoring and analysis of those process, if they are implemented also early activities in achieving planned results and continual improvement of quality, that the requirements of standards required by the applied methodology. One of the prerequisites for the smooth operation of all activities and the

satisfaction of all users of health care service in "Dom Zdravlja Niš" is acquisition of appropriate equipment and apparatus, which is previously defined. It is necessary to carry out and adequate training of personnel that is employed in this department and train them to use various fund from European Union to apply for the fund, necessary for the purchase equipment and improvement of working conditions, so as not only rely on the resources of the Ministry of Health.

Approach of implementing Lean Six Sigma methodology is specific and requires that all department and all employees within this medical institution are involved in process of achieving high levels of quality. It should be noted that participation in this process is invaluable in developing and improving internal communication and team work. Through team work, sharing ideas on how to use the tools and develop services, team members have the opportunity to get to know the organization better. Their participation in the quality tools implementation can often contribute to the strengthening of enthusiasm and represents the catalyst for introduction of new creative methods in their work, for the benefit of all participants in the health care system. Achieving a high level of quality service will help the organization to improve its overall performance, to have culture of continuous improvement and focus on patient /client and also results. Quality of health care services is among the top priorities of European and international health care systems. Health care service requires continuous and systematic innovation efforts in order to provide cost effective, timely and high quality services. Providing quality services in health care facilities involves intensive work on the implementation of quality tools and methodologies.

This paper shows the first, initial steps in the process of increasing the quality of health care services, by implementing quality tools. The example in this paper demonstrate that quality tools and Lean Six Sigma methodology are not "reserved" only for production processes, but also can be applied in health services. It can be concluded that the Lean Six Sigma bridges the service gaps between health care service providers and patients and balances the requirements of health care service managers.

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MANAGING MEDIUM ENTERPRISES IN THE PUBLIC SECTOR WITH THE USE OF INTERNATIONAL ACCOUNTING STANDARD - 16

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ABSTRACT

In business interms of macroeconomic crisis and crisis situations, more prominent method of valuation of assets is in demand, so the evaluation of access to the market position of certain companies is needed. Valid assessment can be carried out only by the group of experts. Within each team every expert performs separate actions. Appraiser should be considered as an independent and qualified person that for the needs of the customer evaluates the capital available to the client, or parts of the capital of companies whose assessment is done. Assessors are expected to objectively present the results, especially in the conditions of crisis. His opinion should not be a compromise, and the impact of factors such as the desire of the client or the amount of commission for the assessment should not be interfering in the judgment. Based on international standards of evaluation there is a large degree of flexibility in the choice of assessment methods, and the most important criteria are the requirements of every individual case. The aim of proper evaluation of the survey is getting the appropriate market value of property. For proper evaluation of the survey was to irrefutably proven market value of company assets.

Keywords: assessment, buildings, value.

INTRODUCTION

Social processes especially in the last decade have affected businesses and individuals in Serbia to quickly react and adapt to the new conditions of life and work. Changes are coming to the fore especially in property relations companies, as well as in decisions regarding the management of new or restructured enterprises. Agricultural businesses in recent years consistently recorded negative operating results. Negative results of operations are the result of very poor economic conditions over a long period of time. Results of ownership transformation are far from expected and potentially possible (Vukoje et al., 2013).

Modern economy is a complex mechanism where there are numerous and diverse activities, as well as the multiple relationships that constitute "economic phenomenon". Mass and diversity of these phenomena and the need for organizing economic life and solving business problems require that the abstract formula of scientific treatment of economic phenomena are replaced with concrete, empirical, synthetic measures of content, scope, the tendency of these phenomena, and economic indicators (Pejanović, R., 2013).

Given conditions imposed the growing need for unification of financial documents that are the basis of financial reporting enterprise management, shareholders, banks, insurers, as well as for the

reporting of state authorities. Financial reporting that the company creates and discloses, must be in accordance with the adopted accounting policy of the previously mentioned, with full respect of international accounting standards and international financial reporting standards.

The aim of proper evaluation of the survey is to irrefutably prove the market value of property. On the basis of the value determined in that way, the management has the ability to make preferred business decisions. International Accounting Standards provide a recommendation to validate the assets of enterprises every three years or a shorter period, in order to more realistically reflect the value of the company's books.

Rationally defined financial targets of enterprises lead to the strengthening of the financial power of the company, and the overall objective of each company, and that is to preserve and increase its assets (Ivaniš, M., 2012). Therefore, valuation of property of companies represents an important activity and responsibility in every modern economic system.

The International accounting standards should be consistent with the defined conceptual framework. The aim of the process of financial reporting is to provide information that are useful in making business and economic decisions. The conceptual framework provides a theoretical basis for determining which business events should be accounting expressed, how they should be measured and in what form should be forwarded to interested users.

MATERIALS AND METHOD

The research presented in this paper are reported amounts of assets and equipment for a company that operates as a public utility company with a predominant activity in the field of agriculture. By its size, it is the second largest in the Republic of Serbia in the aforementioned areas and exists on the Serbian market for over fifty years. The survey was conducted during 2012 and it represents the original scientific work. The paper specifically analyzes the evaluation of fixed assets in the accounting records of the company, and the total valuation of fixed assets and the assessment of possible differences in parts of the property that is not introduced in the books of the company.

The main objective of the research is to show the value of fixed assets that are in the company as a form given in the table, which may serve primarily to management in order to make valid decisions about the management of the company. In addition, it can be useful to other stakeholders, in order to highlight the importance of timely and highquality financial reporting.

The research is based on actual data of the mentioned company, whose name is not given in the paper because it was not obtained approval to disclose the full name of the company. Data were collected by the type of account in which they are led the company, they are grouped and presented in order to be used as a basis for further analysis and as a basis for adoption of specific management decisions. In addition to the above, fixed assets shown in the form of table, may be the basis for decisions on re- assessing the value of a particular group within the fixed assets and with respect to the valuation of fixed assets used in accordance with IAS 16.

By breaking down and comparing the presented group of fixed assets, management has the ability to make the decision to carry out a complete valuation of fixed assets in use , in order to subsequently be able to incorporate the results into its books. This approach is in line with EU recommendations of evaluation and recommended that the evaluation is done every three years for part or all of the assets of a company. If you increase the value of fixed assets after valuation under IAS 16, and the resulting values are brought into the books, the company has the ability to more easily accomplish, or obtain loans from banking institutions, or may have easier access to financial markets. There is also an aggravating circumstance, and it is manifested in the increase of the property tax business. This last notionis often decisive for companies, regardless of benefits they might have, and are not included in the methods of assessing the value of assets, and the main

reason is the illiquidity of such treatment, which is characterized particularly with agricultural enterprises in our country.

FRAMEWORK FOR FINANCIAL REPORTING

The creation of economic crisis in 2008 mostly affected the financial markets and capital, and it has brought to the surface a number of accounting issues related to financial instruments, the determination of fair value disclosure and recognition of losses due to the reduced value of off-balance sheet exposures, assessing their credit risk and other issues. A financial instrument is any contract based on which the financial assets of the company is created (Majstorović et al., 2011). Financial reporting from the standpoint of the application of new rules for banks and other financial institutions, includes that the relevant institutions prepare analyzes of financial instruments in the portfolio, as well as to assess their current and future purpose.

Reports intended for external parties are often defined as financial statements and they are mostly result of work of financial accounting. In terms of globalization, of political, economic and financial flows there is a need to harmonize financial reporting, and the goal of this process is the need to provide understandable, relevant, reliable and useful information, necessary for making the right or optimal business decisions.

The biggest users of reports about assessed property of individual or legal clients are creditors. They require a certified appraiser to use assessment methodology in accordance with the European mortgage market. National Association of Appraisers Serbia needs to align its activities with the norms of the EU. The assessment depends largely on the skill, knowledge and skills which govern appraisers (Ilić, D., Et al., 2013).

The trend of increasing the level of indebtedness of households exists throughout the EU. Irresponsible lending and borrowing, and the general economic crisis in all countries of the EU are the two main reasons for the fall meeting the financial obligations. In situations, when a company makes strategic decisions, they perform the valuation of real estate and other fixed assets. When the owner and management are in a dilemma, whether to keep the existing company with an unchanged activity, whether to sell the company, and secondly, you make the decision to assess the value of the company and this estimate is the basis for making strategic decisions about the future of the company (Rodić and Filipović, 2010). The ultimate goal of the action taken is not only the use of international accounting standards, international financial reporting standards, international standards of assessment, but the objective presentation of reliable data in the financial statements. An objective presentation of an imperative in strategic decision-making (Radulovic, B., 2012).

BASIS OF ASSESSMENT AND DECISION-MAKING FOR PUBLIC COMPANIES

The study was done in a public utility company, which has existed since 24.11.1962. Based on decision of the organization, which was published in the official papers of Novi Sad number 29/2005 and 53/2008, the company is organized as a public utility company, with the dominant agricultural activity. It has an extremely heterogeneous facilities and infrastructure that is construction facilities. The age structure is different. The oldest buildings are located at Futoški put 48, age over half a century, noting that they are in working and exploitation function. Regularly maintained by a professional service companies, and in exceptional cases, maintenance is entrusted to external contractors in cases of specialist and non-standard repair.

The data collected by accounts of fixed assets in which the previously mentioned are run in the company are grouped in Table 1. Grouping is basically made in three categories: total fixed assets of agricultural enterprises in the amount of 954,124,657.97 dinars, then as total assets carried in the

books of the company in the amount of 431,163,689.00 dinars and third category that represents the value of fixed assets that are not in the business records of the amount of 522,996,968.97 dinars.

The largest part of the differences in the amount of 522,494,936.79 dinars comes from agricultural land that was not introduced in the books of the company to the general book, in comparison to fixed assets that represents in total 55% of the value of all fixed assets of agricultural enterprises. Beside an unusually large percentage differences, it can be noted that from the perspective of the real display in the books of the company there is a high level of reserves in the financial statements of the company. In the mentioned company there is no difference in the conduct of the value of the accounts of buildings, computers and IT equipment, buildings operational, equipment that is used, poultry, and there is a deviation on account of artwork that the company has in the amount of 466,032.12 dinars which represents less than 1 % of all of the differences in the accounts. Evaluation of legal subjects, and especially active companies, is essential for them for two main reasons. The first reason relates to the real measurement of the actual situation, and the values that the company has on the date the estimate is done, in order to see if the financial statements need possible adjustments to the accounts, in the form of posting surpluses or deficits. In essence this means displaying the actual value of the company, which gives a realistic picture of the company (banks, foreign investors, and other interested parties). The second reason relates to the fair presentation of values by possible changes in the tax return of companies, after sorting of books, with the tax authorities of the state. On the basis of a realistic assessment and introduction of a newly established value of property, one can determine the increase or decrease of the tax base entities.

Table no.1: Overview of the fixed assets accounts for year 2012 obtained from the initial state

Code of accounts	Name of account	Total fixed assets al	Total assets have ground to the general ledger	Difference
1400	Computing program	4.221.330,00	4.221.330,00	0,00
020000	Agricultural land	522.494.936,79	0,00	522.494.936,79
02200	Buildings in the function	143.271.535,87	143.271.535,87	0,00
022001	Buildings	40.055.513,81	40.055.513,81	0,00
023000	Plant-equipment	120.959.361,86	120.959.361,80	0,00
023001	Plant-subsidies	122.477.664,92	122.477.664,92	0,00
025500	Poultry	17.078,22	17.078,22	0,00
026300	Artwork	627.236,50	161.204,38	466.032,12
IN TOTAL		954.124.657,97	431.163.689,00	522.996.968,97

Source: Originally collected and processed data (2013.)

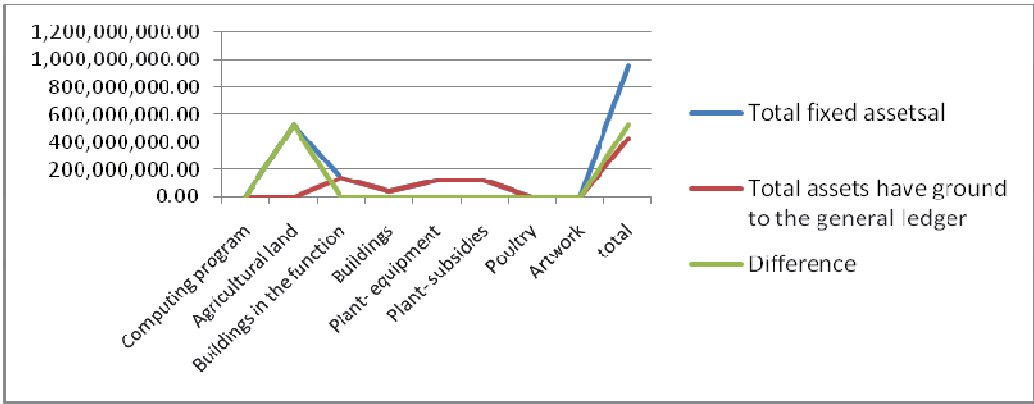


Figure 1: Display of account balance of fixed assets for year 201 obtained from the initial state with reported differences on accounts (Original graph prepared on the basis of table no.1, 2013)

The results of research can be used by the management to enhance the activities in finding the way to introduce the agricultural land in the books. After that management can make a decision to do the revaluation of agricultural land according to IAS 16, and subsequently, to arrange business books of account. This would allow a fair presentation of the company's books, and could be used for benefits such as the possibility of obtaining loans from commercial banks and others. After making business decisions about the new assessment value of fixed assets used in accordance with IAS 16 it is to be expected that the value of the property increases by over 30 % and then it would be closer to the real market value as it was on the day of evaluation. As a result of this new evaluation of agricultural enterprises, one would notice increase in spending and increased costs, such as cost of property taxes. Apart from legal restrictions, costs, and their increase after each new valuation of the assets at fair value, are an important reason why companies are not included in the evaluation process of new fixed assets in use.

CONCLUSION

The whole business requires the maintenance of effective financial reports, as well as the implementation of new guidelines of international accounting standards and international financial reporting standards. Proper and timely financial reporting may allow management to effectively achieve the already set financial objectives of the company. This affects the strengthening of the financial strength of the company, and contributes to the achievement of the general objectives of the company. This is reflected in preserving and enhancing the assets of the company itself.

Management of company should take into account the assets which they use, and therefore need to take into account the valuation of governed assets, it should take into account the recommendations of international accounting standards, as well as international Financial Reporting Standards, and in particular to respect the IAS 16 and at fair values show that the property is managed and introduced changes to the property in the books. Each new property valuation should be within three years, so the property of the company is recorded at fair value.

The main goal of every company is to preserve its existence and provide a permanent and desired development of the same. The above-mentioned objectives that the company aims to realize in the current conditions and at present time, bearing in mind the immediate and distant future. In this way, in addition to survival, the company has a need to invest in their development which is oriented in the long term. Thus, the realization of the main objectives of the company actually turns into a permanent process that takes place under the influence of numerous factors and limitations. In addition, any interruption of continuity can have a decisive influence on the life and work of the company.

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CREATE THE COST OF ACCOMMODATION IN THE HOTEL OFFER

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ABSTRACT

Creating a price of accommodation in the hotel offer is a very important aspect of their business hotels and accommodation prices over can achieve more desirable results both in operational terms, as well as the psychological through the creation of the image and status of the hotel. This is a serious issue, which requires expert analysis, market research, and above all, a certain goal, which would meet the vision and mission of the hotel and meet the needs of clients. However, we see that prices may have negative aspects and which also exhibit the same elements. Most hoteliers do not use their professional academic skills, especially in the field of marketing, because they know that the price of one of the basic elements of the marketing mix. On the other hand, you should know that the marketing concept of operations, the products created by the client's needs, taking into account that they are happy with the service, and not just mere users.

Keywords: cost of accommodation, hotel deals, marketing concept, the customer needs

INTRODUCTION

Pricing strategy is largely determined by the target market and to position the company. Common objectives in determining the price include survival, current profit maximization, the lead in market share and leadership in product quality. For pricing decisions affect product design, distribution and promotion decisions on. So these decisions must be carefully coordinated with other marketing mix decisions when it creates a marketing plan.

Costs determine the lower limit price - the price must cover all costs of production and sales of products, together with an initial rate of return. Management must decide who is in the organization responsible for determining the prices. Top management typically establishes pricing policy, however, part of the responsibilities for the price can not be delegated to managers at lower levels, including vendors and managers of production, finance and accounting.

In the end, the consumer compares - measure the price in relation to the perceived use value of the product - if the price exceeds the sum of these values, the consumer will buy the product. Consumers differ in the values attributed to the different characteristics of the product, and marketing experts often change their pricing strategy for different price segments. When you judge the market and demand, the company estimates the demand curve, which shows the probable quantity purchased in a period of alternative price levels. As the demand is not elastic to the company will set a higher price. Demand and the perception of value by consumers determine the upper limit price.

FEATURES OF MARKETING OF HOTEL AND CATERING SERVICES

Companies that sell services must take into account the four characteristics of services: intangibility, inseparability, variability and transience.

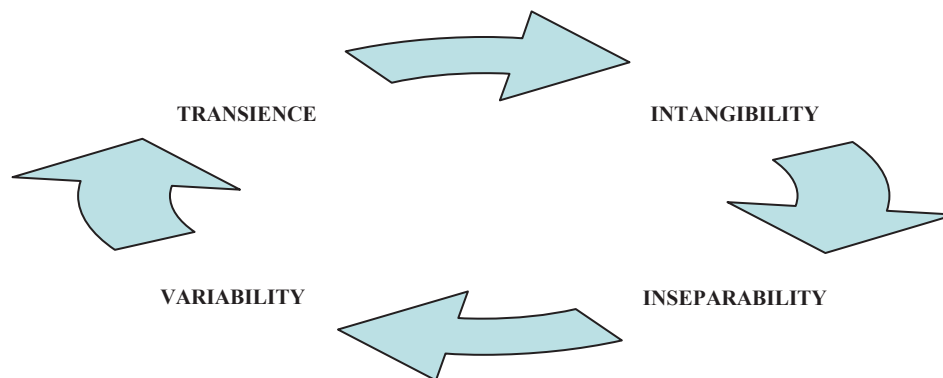


Figure 1: Characteristics of hospitality industry

INTANGIBILITY - Unlike physical products, services are before you buy, I can not see, taste, feel, hear or smell. Sales and hotel staff can not take with him a hotel room when visiting potential customers. In fact, they do not sell the room. They sell the right to use the room at a certain time. When hotel guests leave, they do not have anything to show that they made a purchase unless the account, someone who buys a service may leave empty-handed, but do not leave a blank slate. Guests have memories that can be shared with others. To reduce the uncertainty caused by the intangibility of services, customers are demanding tangible proof that will provide information and instill confidence in service. The external appearance of the restaurant is the first thing a guest remarked. The appearance of the environment and the overall cleanliness of restaurants indicate how well one manages the restaurant. Tangible things provide signals about the quality of intangible services.

INSEPARABILITY - Most catering and hotel services, and the service provider and the client must be present to lead to a transaction. Employee contact with customers are part of the product. Food in the restaurant can be excellent, but if the person served bad or careless behavior, customers will give you a lower rate the overall experience of the restaurant. They will not be satisfied with what they experienced there. Inseparability of services also means that customers of the product. For example, a couple may choose a particular restaurant because it is quiet and romantic, but if in the same room seated group of loud and cheering the participants of the conference, the two will be disappointed. Managers must manage their clients not to create dissatisfaction among other clients. The second meaning of inseparability is that customers and employees must understand the process of service delivery since together to create the service.

VARIABILITY - Services are highly variable. Their quality depends on to who provides them, as well as the time and place at which the service is provided. There are several causes of the variability of services. Services are produced and consumed at the same time limiting the quality control. Due to the volatile demand it is difficult to deliver consistent products during periods of high demand. A large amount of contact between the service provider and the guest means that uniformity of the product depends on the skills and performance of the service provider at the time of the exchange. Guest can enjoy excellent service one day and mediocre service from the same person the next day. Lack of communication and diversity expectations yet also lead to variability services. Variability or lack of uniformity in the product is the main cause of the client's disappointment in the hospitality industry.

TRANSCIENCE - Services can not be stored. Hotel with 100 rooms in one night, which sells only 60 rooms can store 40 unused room and then the next night sold 140 rooms. Earnings that is lost

due to 40 unsold room is forever ruined. Because of the transience of services, a hotel, booking charge even when the customer does not check-in. Restaurants have also begun to charge guests who did not come, and booked the table. And they realize that if someone is booked as appears, the opportunities are of perhaps lost. If catering and hotel companies want to maximize your earnings, must manage capacity and demand.

FACTORS THAT INFLUENCE THE DESIGN OF THE PRICE OF ACCOMMODATION

Some experts believe that pricing and price competition are the main problem faced by marketers. Price is the only element in the marketing mix that produces revenue. All other elements represent costs. Many companies are skilled in determining the price. One common problem is that the company too quickly lower the price in order to generate sales, rather than to convince their customers that the products or services are worth paying a higher price for accommodation. The most common errors include too cost- oriented pricing , rather than pricing a value -oriented consumer. Infrequently revise prices due to changes in the market and set prices that do not take into account the rest of the marketing mix and prices are sufficiently different for different products and different market segments . Incorrect pricing can lead to business failure, even if the other elements of good business. Each managers should understand the basics of pricing. In the narrowest sense, price is the amount of money required for a product or service. More broadly, price is the sum of all the values that consumers are changing for the benefit of owning or using the product or service. Charging too high forcing potential customers. Because of too low a billing company can lose enough revenue to maintain regular operations. Obsolete equipment, the carpet stain, and the walls must be re- whiten and doors changed. A company that does not have enough revenue to sustain the business will eventually fail. The company, which has clearly defined its objectives easier to determine a price that will allow it to survive and not only that but also the progress and prosperity to the high sales results and higher profits. Examples of common objectives are survival, short-term profit maximization, the maximization of market share and leadership in product and service quality.

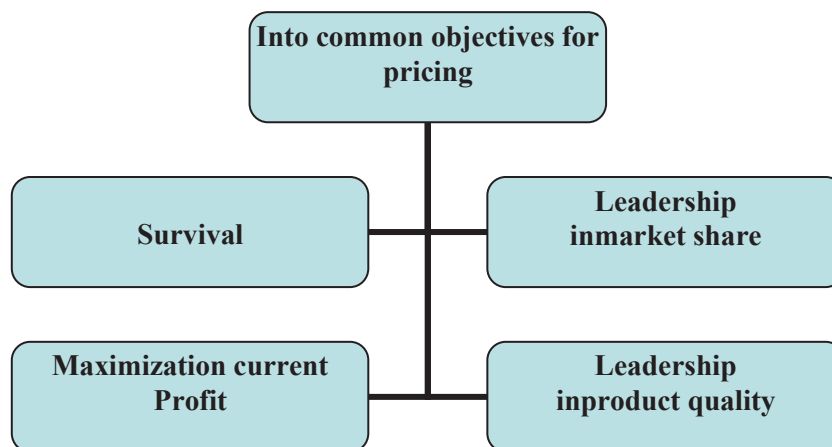


Figure 2: Common objectives of the company in the pricing of products and services

Survival. Companies set survival as its primary goal if you are worried about overcapacity, intense competition and changes in consumer demand. Short-term survival is more important than profit. Hotel often use this strategy when the economy went into a bad period.

Maximization of current profits. Many companies want to determine the price that will maximize current profit. Estimate what will be the demand and costs at different prices and determine that the price that will give the maximum current profit, cash flow or return on investment, looking for immediate results rather than long-term financial success.

Lead in market share. Other companies want to achieve a dominant position in market share. They believe that the company with the largest market share over time have low costs and high long-term profits, and therefore, certain that the lowest possible prices.

Leadership in product quality. The cost of building or buying at room luxury hotel chain Ritz - Carlton often exceed \$ 500,000. In addition to high capital investment per room, luxury hotel chains have high labor costs per room. Their hotels need good and qualified personnel, then a high volume of employees and guests to provide luxury services. They have to charge a high price for their luxury hotel room.

STRATEGY PRICING OF HOTEL AND TOURISM

The pricing is a dynamic process. Companies elaborate pricing structure that covers all their products. Over time, this structure changed and adapted to take account of different customers and situations. Pricing strategies usually change along with the movement of product throughout its life cycle. There are several pricing strategies based on the quality of the introduction of products that mimic other. The pricing for innovative new products , the company may follow a policy of " removing cream ", placing the beginning of the high cost to the maximum amount of income "skimmed" from different market segments or can be set penetration rates, ie initially low prices to win large market share. When the product is part of the product mix , the company seeks total cost of maksirnira profits from the total mix.The company decides on the price levels for items in its product line and pricing of additional product -related products, side-products(by-products) and product packaging.

Companies apply different strategies for adjusting prices take into account the different customer segments and different situations: price discounts and bonuses, discriminatory prices, psychological prices, promotional prices, value-set prices, geographically set prices and international prices.

Strategies for pricing:

- Pricing based on prestige. Hotels and restaurants are trying to position itself as a luxury and elegant will enter the market with a high price tag that supports this position.
- Pricing for removal cream on the market. Pricing for removal cream on the market means setting high prices when the market is not price sensitive. This strategy is common in industries with high costs of research and development, such as pharmaceutical companies and computer companies.
- Pricing for market penetration. Companies determine a low initial price to quickly and deeply penetrate the market, attracting many buyers and conquering a large market share.
- Pricing product mix. Vendors who use the product mix pricing connect several of their products and product mix offered at a discounted price. This is most often used by companies for the cruise.
- Volume discounts. Hotels offer special rates to attract customers who will probably buy a larger quantity of hotel rooms or one time period or for the entire year.
- Reductions based on the time of purchase. Seasonal discount price reduction means customers who buy services off-season, when demand is lower. Due to seasonal discounts, hotel held steady demand throughout the year on maintaining occupancy.
- Discriminatory pricing. This refers to the segmentation of the market and the differences in pricing based on price- elastic characteristics of these segments. In discriminatory pricing company sells a product or service at two or more prices , although the price difference is not based on differences in costs. This maximizes the amount that each customer pays .
- Revenue Management. Revenue management system is used to maximize revenue or contribution margin.
- Determining the price at the last minute. easily determine the price at the last minute ensures the sale of unsold products, it is not a substitute for an effective and well-designed marketing strategy pricing.

- Psychological pricing. Psychological aspects such as prestige, reference pricing, price rounding and ignoring the final cost figures used in the determination of price.
- Promotional pricing. Hotels will provisionally determine the prices of their products below cost in the price list, and sometimes even below cost price, for special occasions, such as opening or holidays. Promotional pricing gives guests a reason to come and a time to promote the image of the hotel.

Despite the increasing role of non-price factors in modern marketing process, price is still an important element in the marketing mix. Many internal and external factors affecting the company's decision on prices. Internal factors include the company's marketing objectives, marketing mix strategy, costs and organization for pricing. External factors that affect pricing decisions include the nature of the market and demand, prices and supply competitors, and factors such as the economy, the needs of resellers and government actions. Freedom in determining the price varies according to the different types of markets. Pricing is especially challenging in markets where there is monopolistic competition oligopoly.

CONCLUSION

When a company is considering initiating any change in price, it must consider the reactions of customers and competitors. Customers' perceptions of change in price affects their reactions. Reactions competitors start from the already established policy response or a fresh analysis of each situation. The company that initiated the change in price must anticipate the likely reactions of suppliers, intermediaries and governments. The company faces a price change initiated by the competitor must try to understand the process as a competitor and probably the durability and performance of those changes. When faced with a competitor's price change, companies can wait and not take anything to lower their own costs, increase the perceived quality, improve quality and raise the price, or launch the "mark of the fight."

Hotel management is very unprofessional approach to creating cost accommodation in the hotel offer and as a result is what we now have on the tourist map, diversity of supply, and the price that affects only the category of the object, not taking into account what it does for the money can be obtained, ie whether they meet customer needs. Most of our hoteliers believes that a sufficient supply of housing, thereby not taking into account whether this is what you really need guests, but the accommodation units are equipped to promote the power of the owner of the hotel.

Consumers also compare the price of products with competitors' product prices. When determining the price of the company may choose one or a combination of three general approaches: an approach based on cost (the cost-plus method of pricing, break-even point analysis and pricing method of the target profit) approach based on the value of (the pricing based on value) and approach the competition (the pricing based on the current price and the sealed bid or auction). With the advent of the Internet, it seems that the web started to become an increasingly common way of pricing.

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PROVISION OF LOGISTICS SERVICES IN NAGYKANIZSA AREA

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ABSTRACT

Logistics services play important role in economy. They serve needs of senders and receivers as well. They also contribute regional employment and development. The aim of the paper is to present the result of a survey related to the services of logistics service providers focus county Zala in Hungary. Results show that generally basic and simple services are offered. Complexity appears mostly at large international service providers.

Keywords: logistics services, logistics, providers.

INTRODUCTION

Cooperation between manufacturers and external logistics providers in the industry and commerce has become an essential part of the daily work. This cooperation can be traditionally narrow or broad targeting complex logistics services. According to the complexity the services can be divided into two groups: simple and complex.

The complex high-level services support the integrated operations. The high level logistics services include different types of logistics activities, such as coordinating and managing these services as well. For example, distribution by a third party, where the external partner is responsible for the transport, warehousing, packaging, material handling, inventory control and distribution resources planning.

The logistics service centers are primarily operated by organizations providing external services. (Kovács, 2004)

The services providing by the logistics service centers can be divided into 3 main groups:

- Logistics basic services
- Logistics additional services
- Other services. (Fogarasi and Fülöp,2005)

The services are always tailored to the customer's individual needs. Each partner service is unique and different from the others. The service and the consumer are in interaction. (Kovács, 2001). The weight of the service system has increased in the economy, and with it has come to the front the organizing principles applied the service systems based on the traditional production processes. (Koltai, 2006)

LITERATURE REVIEW

Logistics outsourcing in Hungary in 2009 was researched by KPMG which has an overview of the following major topics:

- The objectives of the logistics outsourcing
- Aspects for selecting the logistics service provider
- Difficulties and obstacles of the outsourcing implementation
- The realizable benefits provided by outsourcing.

Logistics in the European Union and Hungary (2009) research examines the logistics situation in Hungary, while it gives the outlook for the domestic logistics services. We have investigated the Aberdeen research reports from the same field (2011-2014) in the following topics:

- logistics outsourcing,
- supply chain cooperation.

Research reports gave a deeper insight into the nature of recent logistics services.

RESEARCH PLAN

The range of activities provided by the logistics service providers have been expanded in recent years, while they have to meet different expectations such as the shortening of lead times and the extension of the distribution. Such demands can only be met through sufficiently flexible systems. Not only the material flow but information flow, the used ICT tools are also interesting.

On the one hand during the research the areas of activities were covered and on the other hand the related processes were investigated: the continuous tracking, the lead time, and the level of the automation system.

Main research questions were:

1. What type of services (simple – complex, basic – additional are offered? (Partly a successive investigation of a previous survey on services in the area done in 2008.)
2. What preferences do players have?
3. What is the composition of services in past , present and future?
4. To what extent has been changed the application of ICT tools in the past ten years?

In this paper we focus on the answers to the first question.

THE SAMPLE

We tried to cover all the significant players on the local market. Regarding the ownership there were mostly exclusively Hungarians owned companies with international activities. (Tables 1-2.)

Table 1: Two third of the companies were domestic

Form of the ownership	Number	Share
Only Hungarian	33	73%
Only foreign	6	13%
Mixed owned	6	13%
Total	45	100%

Table 2: More than half of the examined companies have regional activity

Extent of business	Number	Share
Local scope	2	4%
Small area coverage	8	18%
Partial coverage of domestic	9	20%
International scope	26	58%
Total	45	100%

The whole picture is shaded by the fact that for some companies logistics service provision is not the main activity. Sectorial affiliation of served businesses shows a very mixed picture. However the holding companies cover the entire segment. (Figure 2.)

FINDINGS

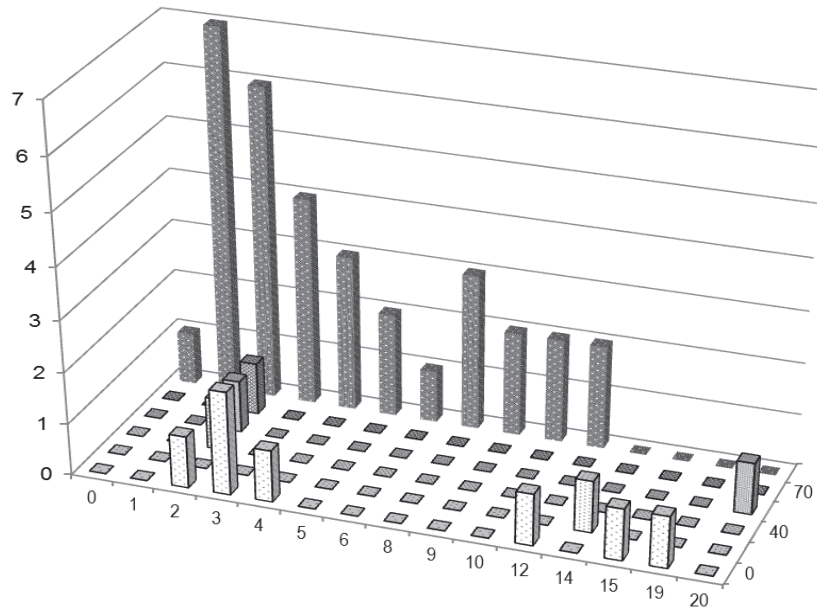
Frequency analysis served to identify the most often provided services. Table 3. shows the results.

Table 3: Frequency and classification of services

Service	Frequency	Simple			Complex
		Basic	Additional	Other	
Transportation-unimodal	41	x			
Storage	31	x			
Gathering	19				x
Unit load handling	16	x			
Distribution	14				x
Product delivery	14				x
Manual picking	14	x			
Labelling	13	x			
Transportation-multimodal	9	x			
Supply	8				x
Custom warehousing	8	x			
Vehicle maintenance	8		x		
Custom service	7		x		
Partly automated picking	4	x			
Sorting (only)	4	x			
Business consulting	4		x		
Security services	4		x		
Car/truck wash	3		x		
Fuel station	3		x		
Education services	3			x	
Postal services	3			x	
Automated picking	2	x			
Other workplace food services	2			x	
Other limited hospitality services	2			x	
Break-down service	1		x		
Bank services	1			x	
Selfservice restaurants	1			x	
Other food services	1			x	
Ingredients and hygiene monitoring services	1			x	
Internet access and services	1			x	
Translating, interpretation	1			x	
Other accommodation	0			x	
Other limited hospitality	0			x	
Animal health care	0			x	

The Table 3 shows that basic and simple services – such as warehousing, transport - are offered by most of the companies. Figure 1 shows that the foreign-owned companies are focusing on specific services (2-3-4 service), or in other cases they provide a large number of logistics services to their clients. The professional experience of the parent company will probably help them in this field.

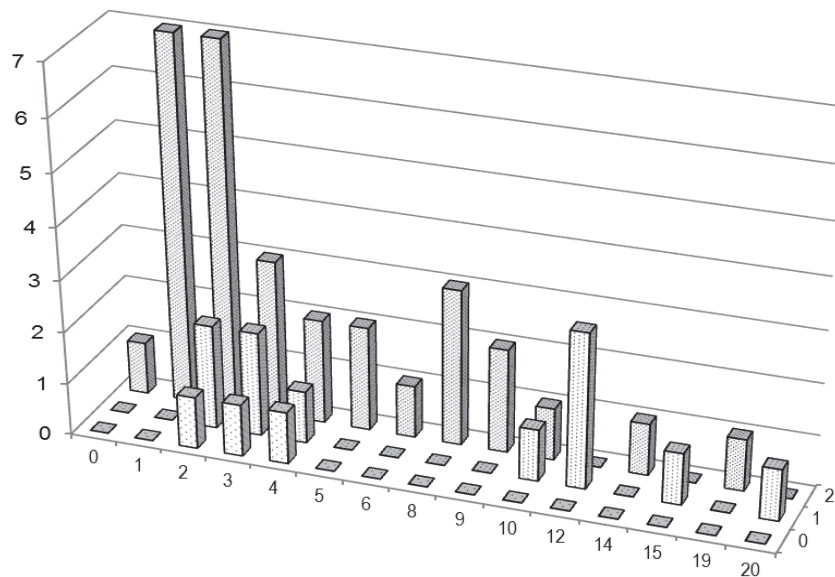
In the case of domestic or mostly domestic enterprises, provided services are much more diverse. Those companies can be found here as well, that are focusing on providing a relatively small number of logistics service, but there are also companies among these businesses that provide 8-12 services.



0: No answer; 1: Part of a holding; 2: Not part of a holding

Figure 1: Being domestic results different focus.

Figure 2 demonstrates the connection between the number of logistics services provided by the company and whether the firm belongs to a holding company (1=yes, 2=no, 0=no answer).



0: No answer; 1: Part of a holding; 2: Not part of a holding

Figure 2: Not being the part of holding results mostly 1 or 2 services.

CONCLUSION

Based on our analysis we can state the examined logistics service providers mostly offer simple and basic services. Differences were observable by nationality and size. Surprisingly, the pure Hungarian companies have significant international scope. This is probably due to the liberalized transport market in the European Union.

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RANKING THE MAIN CAUSE OF REPEATING SCHOOL YEAR IN LOWER GRADES IN ELEMENTARY SCHOOL

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ABSTRACT

School failure is progressively manifested in different forms, and grade repetition is considered as one of the most expressive forms of failure. The responsibility for the failure was observed more as problem of pupils, their families, peer groups than the teachers themselves. The causes of school failure are ascertained by analysis of educational work. The study of failure is a complex problem, and therefore there are different methodological approaches to the study of this problem.

Key words: elementary school, pupil, lower grades, repetition

INTRODUCTION

The causes of school failure are ascertained by analysis of educational work. According to the traditional understanding the "main culprits" for their own failure are the pupils themselves. At the present time, there is the view that the responsible for failure are also those who standardize and organize schoolwork, draft and prepare teaching materials and aids, as well as teachers, parents and social factors. No matter that the term of failure is defined differently, unsuccessful pupils are those pupils who do not learn enough teaching material in a given time period.

The causes of recurrence of the school year should be explored in the following categories:

- Socio-economic relations,
- Family (socio-economic status and family relations),
- Educational influences within the school,
- Subjective factors of pupils (abilities, personality traits).

Theoretical research

The first researches of school failure by us are created in the field of psychology. Zorman is one of the first authors who is by researching the success and failure made the correlation between family and school success of children (West, Pennell, 2003). He came to the conclusion that pupils whose parents have higher education levels are more successful than pupils whose parents have a lower level of education. Today, the listed interdependence is less pronounced because the family environment is not the only source of education. On samples taken from a population, a high correlation between academic achievement that is failure of pupils and supervising the work of pupils after school is obtained. By the significant correlation with success, there are family relationships, gender of pupils, education of parents, financial situation, and finally, employment of parents.

The failure of pupils affects the ability and personality traits, such as:

- Small-developed ability to learn

- Introversion,
- Anxiety,
- Poorly integrated personality,
- Tendency to avoid responsibilities,
- Lack of control over their own procedures,
- Emotional instability and immaturity,
- Neuroticism,
- Compliance,
- Conformity,
- Lack of motivation.

In the opinion of pupils obstacle to achieving success is better:

- Lack of sufficient knowledge of pupils,
- Fear of objects,
- Difficult subject matter,
- Pupils do not understand the teacher,
- Teacher's poor explanation of the material,
- Improper evaluation.

DEFINING THE CAUSE OF REPEATING THE SCHOOL YEAR

Repetition is one of the most expressive forms of failure. In an effort to observe school failure and grade repetition from different perspectives, the Institute for Educational Research, Belgrade conducted a study whose objective is defined as the identification of teachers' attitudes toward repetition and repeaters in elementary school based on their observations:

1. The causes of recurrence
2. Liability for repetition
3. Repeating as pedagogical measures.

Responsibility for the failure was observed more as a problem of pupils, their families, peer groups than the teachers themselves.

On the failure as the cause of the recurrence of the school year is also referred to as a result of:

- Reduced intellectual capacity,
- Lack of motivation and interest of pupils for the school,
- Unclear and chaotic interpersonal relationships at school.

According to the traditional view of the "main culprits" for their own failure are the pupils themselves, ie. If they fail it is attributed to their poor management, insufficient devotion, laziness, their availability to other activities. Nowadays it is more and more frequent the opposite view that for the repetition are responsible ones who standardize and organize schoolwork, draft and prepare teaching aids, teachers, parents, social factors.

When defining the causes of recurrence of the school year there are difficulties. Depending on the society, schools and teachers differences in the definition are created. Regardless of the diversity of the definition of failure, by failure are considered those pupils who do not master the teaching material in a given time period what can be seen from the negative evaluations of specific subjects ie. pupils who repeat a grade.

Perceptions of school failure causes in pupils losing confidence in their own abilities, loss of self-confidence, reducing the motivation to actively participate in learning activities resulting in the withdrawal of pupils in themselves (Krneta et al.,1973).

Pupils with insufficient success differ from successful pupils in the representation of some feature capabilities such as inattentiveness, shyness and a lie. The tendency of pupils to "run away" from school and neglect their own duties are typical for a failing pupil, what is confirmed by teachers and parents.

One study was a major contribution to the understanding the concept of failure from the methodological point of view, a trial is aimed in two directions:

1. based on review of school practice, some characteristic features of the situation should be determined in relation to the failure to formulate appropriate problems arising from such a condition,
2. to attempt to experimentally verify the effect of some school measures in our circumstances seem applicable to ground fighting against failure, especially among pupils who repeat grade

The aim of the study was that at a certain stage of stratified sample of schools determine condition, circumstances and working conditions that lead to failure in the elementary schools, and to set the conception and conduct an experiment focused on specific measures to be could take in school practices to efficiently remov manifested failures in the classroom (Krneta et al.,1973).

ROLE OF THE FAMILY AND TEACHERS IN SOLVING AND ELIMINATION OF THE CAUSES REPEATING THE SCHOOL YEAR

The role of family

Analyzed research is interesting to the public due to the large number of migrant families in which children are raised and educated separately from their parents, usually with grandparents. The study had a longitudinal, trnsferzalni and expost facto character because the phenomena studied repeatedly in several years. Pupils whose parents are temporarily absent end school year with less percentage compared to pupils who are in constant contact time with their parents.

Teachers believe that the main reason for poor teaching is lack of parents' control and lack of commitment of parents. If the parents would help more the children in the first grade in overcoming difficulties and regularly monitor their work, pointing to the value of work and success in life there would not be repeating. Some teachers say that in most cases the problem is to establish good communication with parents, and collaboration and family and school teachers is evaluated as a very important element for further progress of pupils (Mitov, 1978).

The role of teacher

The teacher's behavior include the teacher's activities and interests for both personal and academic development of pupils. For optimal success of the pupils it is important that teachers show respect and support, especially to the unsuccessful pupils and that is priority for the overall development of pupils (Kocić, 1989).

A successful teacher continuously demonstrates patience and confidence in the pupils, and focus on the positive side of pupil's behavior and achievement and honors pupils not only to promote motivation to learn than developing pupils' self-esteem and sense of competence. Teacher's behavior includes primarily an emotional component that pupils recognize and which is in the process of teaching bind, seeking support in her personal progress in school (Thrumann, Wolfe, 1999).

The positive interaction with teachers and peers influence and better motivation for learning and teaching a specific subject (Felder, Silverman, 1988).

Teachers have lower expectations of children from working-class and it is more likely that children from certain social classes are labeled as problematic. The researchers conclude that the lower expectations of teachers are possible factor influencing the weaker pupils' progress in learning (West, Pennell, 2003).

In an effort to comprehend grade repetition from different perspectives, a survey was conducted with the primary objective to define it as the identification of teachers' attitudes toward repetition and repeaters in elementary school based on their observations:

1. the cause of perception
2. liability for repeat
3. the repetition of such educational measures.

Immediately experience of teachers working with pupils is a valuable source of learning, discovery and study of the causes of repetition. Teachers believe that repeats "should not be dismissed as the worst pupils, they need more attention in order not to feel abandoned by the school." Most research suggests that teachers' personality, his professional and pedagogical competence, as well as their behavior in classes and expectations of pupils significantly influence the success or failure of pupils.

To encourage pupils motivation, learning at school should be interesting, stimulating and challenging. Teachers should be able to interest everyone, especially the poor pupils for classes using different teaching methods and techniques, opening discussion and enable selection of learning which includes respect for different cognitive styles.

ENCOURAGING CHILDREN TO EXPERIENCE SCHOOL AS AN INSTITUTION IMPORTANT FOR THEIR DEVELOPMENT

It is believed that the involvement of schools and families in finding ways and forms of assistance to unsuccessful pupils are not only necessary but absolutely pedagogically and morally justifiable act. Between intensive search for effective teaching and the answer to the question whether it is possible to have a school with no weak pupils, the role of teachers has been recognized as particularly important for achieving successful outcomes of pupils in the school. The teacher's behavior can be described as a teacher's attitude toward pupils in learning, in which the next significant is cognitive affective component.

For the optimal success of pupils it is important that teachers show respect and support, especially the unsuccessful pupils and that his priority for the overall development of pupils. Teacher's behavior includes primarily an emotional component that pupils recognize and which is in the process of teaching bind, seeking support in her personal progress in school. It is fact that there are differences among pupils indicate a need to provide more accurate insight into the essence of failure and, accordingly, the selection of appropriate strategies to help. Related sections in the planning and implementation of successful programs include:

1. Develop pupil support structure,
2. Include the family in a working relationship with the school,
3. Teachers and parents should build strong parental attitude towards children's learning,
4. Organize group meetings with pupils along with family interaction,
5. Expected and controled interference in work.

In order to improve the achievement of overcoming and prevention of school failure some recommendations for pupils, parents and teachers are given. Pupils are advised to:

1. Understand their results at school due to their commitment,
2. Without hesitation seek help when they need it,
3. Create a special bond with the school (through its own activities, clubs, teams and extracurricular activities),

4. Carry out their assignments on time,
5. Watch less television.

Parents are advised to:

1. Review the homework,
2. Show the importance of education and academic success for the future,
3. Participate in or organize trips for educational purposes,
4. Supervise the children during the time devoted to learning,
5. Show interest and are actively involved in the school life of the children

Teachers recommended that:

1. They have really high expectations,
2. Adapt to the demands of pupils' needs,
3. Be responsible and develop positive attitudes,
4. Indicate the value of subjects.

RESEARCH METHODOLOGY

Purpose and task of the research

The main objective of this study was to investigate the attitudes of pupils in lower grades of elementary school, which are the causes of recurrence of the school year.

Research hypotheses

The main hypothesis is: Pupils who repeat a school year are not interested in the elementary school curriculum.

The first auxiliary hypothesis is: Pupils who repeat a school year are mostly from families with cultural and educational level.

Another auxiliary hypothesis is: Pupils who repeat a school year are usually those who have little developed an ability to learn.

Sample and research techniques

The research will be attended by pupils in lower grades of two elementary school "Jovan Luci" from Zrenjanin and "Mosa Pijade" from Debeljača. As a measuring instrument for this research will be used to survey for pupils, which will be determined by the interest of pupils in school and learning and how ready are for independent homework.

The survey instrument

The main instrument used in this research is questionnaire.

CONCLUSION

Overview of major research methodology with us shows that the modernization of methods, techniques and tools, as well as their adaptation to the science of education, contributed to the research problems of school failure and repeat the school year get more complex and modern connotation while ensuring that educational work linking theory and practice. Research in education was marked by the development of the methodology of pedagogy in the world which is reflected in research into the causes repetition of the school year and school failure.

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POSITIVE OUTCOMES OF OFFICE ERGONOMICS IN TERMS OF HIGHER PRODUCTIVITY

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ABSTRACT

One of the sciences which considers to human health, human performance and body activities is Ergonomics. Ergonomics is one of the modern sciences, drawing as much from the field as from the laboratory, and including elements of an art and a craft as well. Before designing the workplace it is necessary to determine its requirements, i.e., which is it intended for, what are the characteristics of the existing work equipment and the additional tools needed. However, there are some standards and with their application people will prevent the occurrence of modern office diseases. This paper is focused on the positive aspects of ergonomics in improvement of the working environment.

Key words: Office ergonomics, productivity, computer usage, visual environment, working environment.

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POSSIBILITY OF CHOOSING DEVELOPMENT INVESTMENT PROGRAMS OF A PRODUCTION COMPANY BY APPLYING DISCOUNTED INVESTMENT APPRAISAL TECHNIQUE

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ABSTRACT

The selection of development investment programs is one of the most important decisions in industrial production. The paper sets out the possibilities of applying dynamic criteria for investment decision making. It presents a practical numerical example for the value calculation of investment criteria Net Present Value and Internal Rate of Return for the reviewed investment project solutions. In this manner it is possible to make an orderly set of alternatives with clear preferences for the most suitable alternative in comparison with other ones. Such rating of project solutions will enable the decision maker to emphasize advantages with more arguments and select the most suitable project solution in accordance with the established criteria, conditions and limitations.

Key words: Development Investment Projects, Production program, Dynamic criteria

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Session C: HUMAN RESOURCE MANAGEMENT

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FUZZY PERSONNEL SELECTION PROBLEM

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ABSTRACT

The main objective of this paper is to develop a model based on linguistic decision making evaluating based on new group fuzzy linguistic modeling for determining criteria importance and candidate ratings. However, there are varieties of different methods in the literature. The evaluation process is based on new group fuzzy linguistic modeling and fuzzy aggregating. By using fuzzy linguistic variables with multi criteria decision making (MCDM), a new project manager selection model is offered in this paper.

Key words: Operation Management, Fuzzy Decision Making, Personnel Selection

INTRODUCTION

As in many decision problems, personnel selection problem is very complex in real life. Individuals in many conditions mostly prefer to show their feelings with verbal phrasing. When decision makers do not want or are not able to represent their preferences in form of quantitative evaluations, Fuzzy Linguistic evaluation can be used for qualitative evaluations. In fuzzy linguistic evaluation linguistic variables (Siler & Buckley, 2005) are expressed in words or sentences (not numbers). For example, in personnel selection, communication skill is a criterion that can be considered as a linguistic variable. Its linguistic values are poor, fair, good. By a fuzzy triangular number each linguistic value can be represented. For changing the verbal expressions into numerical ones fuzzy linguistic models is suitable (Güngör, Serhadliolu, & Kesen, 2009). Therefore, some multi criteria methods based on fuzzy relations are used for dealing quantitatively with imprecision in the expression of the importance of each criterion. Some studies were conducted with the purpose of solving personnel selection problem within the boundaries of objective criteria in fuzzy environment (Capaldo & Zollo, 2001; Chen & Cheng, 2005; Drigas, Kouremenos, Vrettos, Vrettaros, & Kouremenos, 2004; Karsak, 2001).

The usage of fuzzy linguistic variables to conduct evaluation will finally enhance the efficiency of decision making by reducing error in utility values. The paper is organized in five sections. Section 1 provides an introduction to the research. It describes the motivations and objectives of this research, including the background of study, problem statement. Section two reviews the literature of previous work and will show that the problem gap this research intends to fill has not been addressed. It presents a literature review covering the various aspects of this problem and presents a critical literature review of linguistic variables and personnel selection. Section 3 presents the methodology used in the study. This section discusses the fuzzy linguistic evaluation procedure and how determining fuzzy criteria importance and rating candidates. Section 4 describes the case study used to validate this model and analyses the results of the validation. The case study is an in depth application of proposed methodology to assist in selecting project manager for an Iranian company. Results from case study will be presented as step by step. Section 5, discusses the outcomes of the research, and also explains how the objectives of the research are fulfilled.

LITEARTURE REVIEW

Linguistic variable is a variable that contains values that are words. These amounts are expressed in the form of expressions. In other words, variables that are not numbers and its value are words and phrases. For example, "Height" is a linguistic variable that can include values such as very low, low, medium, high, very high, etc. Fuzzy numbers can be used to display linguistic variables. It is suitable to represent the degree of subjective judgment in qualitative aspect by using linguistic variables than in crisp value by using numbers. In conditions where decision problems are very complicated or not clearly explained to be described appropriately, the concept of a linguistic variable is very useful by using conventional quantitative expressions (Herrera, Alonso, Chiclana, & Herrera-Viedma, 2009).

A variable that its values are linguistic labels is a linguistic variable. These linguistic terms can be words or sentences (Siler & Buckley, 2005). For example, communication skill is a linguistic variable when its linguistic values are poor, fair, good. Each linguistic value can be represented by a fuzzy number which can be assigned to a membership function. As an example, Linguistic variable for W_{ij} consists five element. $W_{ij} = \{VU, U, F, I, VI\}$, where VU = Very Unimportant, U = Unimportant, F = Fair, I = Important, VI = Very Important. There are many different way to define membership function in literature. The triangular shape membership functions which are most often used are used in this study. The linguistic values of W_{ij} are shown in Table 1:

Table 1: Linguistic variables for the weightings

Linguistic term	Triangular fuzzy number
Very Important (VI)	(0.75, 1.0, 1.0)
Important (I)	(0.5, 0.75, 1.0)
Fair (F)	(0.25, 0.5, 0.75)
Unimportant (U)	(0, 0.25, 0.5)
Very Unimportant (VU)	(0, 0, 0.25)

When decision makers do not want or are not able to represent their preferences in form of quantitative evaluations, Fuzzy Linguistic modeling can be used for qualitative evaluations. In fuzzy linguistic modeling we use linguistic variables (Siler & Buckley, 2005) whose values are words or sentences (not numbers). For example, in personnel selection, communication skill is a criterion that can be consider as a linguistic variable. Its linguistic values are poor, fair, good. By a fuzzy triangular number each linguistic value can be represented. Some authors used fuzzy linguistic variables or fuzzy linguistic rules for personnel selection. Liang and Wang (1992) presented a model by using concepts of fuzzy set theory assess personnel fitness and job vacation. The degree of matching between personnel and job is expressed by fuzzy variables. The model consists of two levels. In the first level decision makers determines the criteria for personnel evaluation. In the second level under each evaluation criterion assigns fuzzy ratings to different personnel. Liang and Wang's approach was a start for using fuzzy theory to optimal personnel placement. On the other hand, fuzzy sets decision theory suggested with Miller and Feinzig (1993) for the personnel selection problem.

Liang and Wang (1994) developed a fuzzy MCDM methodology to find the final ranking values for candidates in personnel selection problem. They defined criteria, such as personality, leadership, and past experience, general aptitude, and comprehension. They transferred the linguistic assessments about criteria weightings and ratings to the triangular fuzzy numbers (TFNs). Yaakob and Kawata (1999) used fuzzy methodology for solving workers' placement problem. By using the concept of fuzzy linguistic variables and fuzzy triangular numbers (TFNs) they did evaluation in industrial environment. For finding the better worker for production line they consider criteria as: Speed, Quality, Leadership, Professional knowledge, and Self confidence. To rank the order of candidate approximately, the center values of TFNs were used. Lovrich (2000) used fuzzy linguistic model for personnel selection. He suggested using spreadsheet for implementing the model. Criteria (Skills) importance was treated as linguistic variables (very high; high; average; low and very low). In a case study senior economic and financial analyst selection for the corporate unit of the telephone company was done with this model.

Capaldo and Zollo (2001) presented a model based on a case study in FIAT Research Centre (CRF) that is a major Italian company. They tried to find decision formulations and decision samples to be used on

the basis of the evaluation method adopted by the companies. Then by using fuzzy logic they developed an evaluation method. Personnel selection criteria in this study were in three groups: professional skills, managerial skills, and personal characteristics. Butkiewicz (2002) used fuzzy numbers for staff selection. Staff selection in a tourism agency was done as numerical example in this study to show validity of the model. Criteria were included: Education, working knowledge, geographical knowledge, apparition, computer skills, knowhow of office equipment, serenity. Chen and Cheng (2005) combined Group decision support system (GDSS) with MCDM in fuzzy environment to solve the personnel selection problem. Their method used for information system project manager selection. The assessment of candidate and the important weights of criteria are given in linguistic terms and then transfer to triangular fuzzy numbers (TFNs). They proposed a new approach to rank fuzzy numbers by metric distance. They gave two examples to compare with other methods for showing their method has a good ranking method. A computer based group decision support system, FMCGDSS, to increase the recruiting productivity and to easily compare their method with other fuzzy number ranking methods.

Golec and Kahya (2007) developed a hierarchical structure and use a fuzzy model for personnel selection. The model selects the personnel using the fuzzy rule base approach. Criteria had to representing organization's goals. In this paper a criteria hierarchy with three level developed and linguistic terms for rating includes: poor, fair, average, good and superior. Also for criteria importance they used Unimportant; Less important; Important; More important and Most important as linguistic variables.

METHODOLOGY

The goal of this stage is the personnel evaluation based on fuzzy linguistic modeling for determining criteria importance and candidate ratings. The goal of the next stage is fuzzy aggregating. This part of the study uses the fuzzy linguistic evaluation in the group decision making environment. Compared with regular crisp set method, the fuzzy linguistic approach represents qualitative aspects as linguistic values by means of linguistic variables (Herrera-Viedma & Peis, 2003; Zadeh, 1975). Linguistic reasoning requires fewer assessments information; it requires very few assumptions to be satisfied; Furthermore, by including the degree of importance for decision makers this tools are very realistic (P. P. Wang, 2001). Thus in stage two, Linguistic multi criteria decision making is employed. This stage consists of using fuzzy triangular, fuzzy combining, vertex method, and distance measurement method for aggregating between decision makers preference. Alongside with linguistic variables, the triangular fuzzy numbers are used most often for representing the fuzzy number. The decision maker's perception of alternatives' performances with respect to each criterion can be represented by this type of fuzzy numbers. A triangular membership function would be used to avoid increasing complexity for the fuzzification process (Petroni & Rizzi, 2002). In this study, a five-term set has been used for practical applications (W. P. Wang, 2009).

The purpose of this model is to enhance group agreement on the group decision making outcome by considering group decision making and linguistic variables concurrently. Once the hierarchy is structured, the next stage is to establish the importance of each criterion and also to evaluate candidates based on the hierarchy. The decision makers will make a judgment on the candidate's status in each criterion, with respect to elements in the hierarchy using linguistic variables. Considering the fuzziness of personnel selection evaluation, this research adopts five linguistic variables to assess candidates. In addition, the same linguistic terms are used to measure the importance of each criterion. For convenience in computation, a triangular membership function is used for transformation of fuzzy number. Triangular fuzzy numbers were chosen because of their simplicity and widespread use. There are 7 steps in this methodology:

- Step 1: Choice of appropriate linguistic variables.
- Step 2: Determining the fuzzy criteria weights.
- Step 3: Ratings of the candidates by the decision makers
- Step 4: New fuzzy aggregation model.
- Step 5: Transfer linguistic variables to triangular fuzzy numbers.
- Step 6: Combining the fuzzy evaluation values of decision makers.

Step 7: Defuzzify the fuzzy decision matrix and fuzzy weight.

FINDINGS

By considering that MAPNA is a project based company, the selecting project manager is a critical task for this company. Usually this selection is not done by a single person and a group of persons participate in the process. Usually, the group of decision makers consists of decision makers from different organizational departments and high level managers. In order to determine which applicant is best for the job position from candidates, three decision makers are invited. For more convenience, $D=\{D_1,D_2,D_3\}$ is considered as the decision maker set. The committee was formed for evaluation of candidates and consists of three persons, executive deputy of MAPNA Company (D1), and procurement deputy (D2) and the administrative and financial deputy (D3).

Linguistic variables consist of five linguistic terms for the importance of criteria is considered in the project selection case study. This terms with the forms that was shown in Table 2, expressed in triangular fuzzy number.

Table 2: Linguistic term used for criteria importance

Linguistic term	Triangular fuzzy number
Very Important (VI)	(0.75, 1.0, 1.0)
Important (I)	(0.5, 0.75, 1.0)
Fair (F)	(0.25, 0.5, 0.75)
Unimportant (U)	(0, 0.25, 0.5)
Very Unimportant (VU)	(0, 0, 0.25)

It is necessary that to define the importance for each criterion by each of decision makers. These weights are expressed by means of a linguistic variable whose values are “Very Unimportant”, “Unimportant”, “Fair”, “Important”, and “Very Important” importance. The weights assigned by the three decision makers (D1, D2, and D3) are given in Table 3.

Table 3: Fuzzy linguistic of criteria importance

Criteria/ Sub Criteria	Decision makers		
	D ₁	D ₂	D ₃
C ₁	Very Important	Very Important	Important
C ₁₁	Important	Very Important	Important
C ₁₂	Fair	Very Important	Very Important
C ₁₃	Important	Important	Important
C ₁₄	Very Important	Important	Very Important
C ₂	Important	Important	Very Important
C ₂₁	Important	Important	Important
C ₂₂	Fair	Important	Important
C ₂₃	Important	Very Important	Very Important
C ₂₄	Very Important	Important	Important
C ₃	Fair	Very Important	Important
C ₃₁	Important	Very Important	Very Important
C ₃₂	Very Important	Fair	Fair
C ₃₃	Fair	Important	Important
C ₄	Important	Fair	Fair
C ₄₁	Very Important	Fair	Fair
C ₄₂	Very Important	Important	Very Important
C ₄₃	Important	Important	Important

The next step is the evaluation of the candidates by the decision makers in each criterion. The candidates were assessed on the basis of the 14 criteria listed in criteria hierarchy. Candidate's assessments on the criteria are expressed through a linguistic variable whose values are "Very Poor", "Poor", "Fair", "Good", and "Very Good". Each decision maker uses the linguistic variables to determine the performance rating of each candidate with respect to each criterion (Table 4 for candidate 3).

Table 4: linguistic ratings of personnel p3

Criteria/ Sub Criteria	Decision makers		
	D ₁	D ₂	D ₃
C ₁			
C ₁₁	Very Good	Fair	Very Good
C ₁₂	Very Good	Very Good	Very Good
C ₁₃	Good	Very Good	Very Good
C ₁₄	Fair	Very Good	Good
C ₂			
C ₂₁	Good	Good	Very Good
C ₂₂	Very Good	Very Good	Very Good
C ₂₃	Fair	Very Good	Good
C ₂₄	Fair	Good	Fair
C ₃			
C ₃₁	Very Good	Good	Good
C ₃₂	Very Good	Very Good	Very Good
C ₃₃	Good	Very Good	Very Good
C ₄			
C ₄₁	Good	Fair	Good
C ₄₂	Good	Good	Good
C ₄₃	Good	Good	Poor

The linguistic evaluations for criteria importance are converted into triangular fuzzy numbers. Also the linguistic evaluations for candidates rating are converted into triangular fuzzy numbers. The fuzzy numbers are used and determine the aggregated fuzzy rating and fuzzy weight of all criteria and factors. The final fuzzy evaluation is shown in Table 5.

Table 5: The final fuzzy evaluation

Criteria/Sub Criteria	Weight	Transformation values of fuzzy ratings		
		P ₁	P ₂	P ₃
C ₁	0.815			
C ₁₁	0.761	0.750	0.695	0.750
C ₁₂	0.750	0.571	0.500	0.865
C ₁₃	0.707	0.761	0.359	0.815
C ₁₄	0.820	0.695	0.641	0.695
C ₂	0.761			
C ₂₁	0.707	0.500	0.761	0.761
C ₂₂	0.641	0.623	0.571	0.865
C ₂₃	0.815	0.571	0.500	0.695
C ₂₄	0.761	0.641	0.429	0.571
C ₃	0.695			
C ₃₁	0.815	0.761	0.761	0.761
C ₃₂	0.623	0.641	0.707	0.865
C ₃₃	0.641	0.815	0.641	0.815
C ₄	0.571			
C ₄₁	0.623	0.641	0.641	0.641
C ₄₂	0.815	0.815	0.571	0.707
C ₄₃	0.707	0.571	0.429	0.571

CONCLUSION

The focus of this research was to contribute the concept of personnel selection by developing a decision methodology which integrates group decision making and fuzzy linguistic evaluation. This study has clearly demonstrated that personnel selection can be improved in several ways by implementing the fuzzy MCDM model. First, decision makers can evaluate candidates based on their own verbal terms. Using linguistic variables in Fuzzy environment are often comfortable for decision makers during the evaluation stage. Second, by using linguistic variables, less emphasis is placed on detailed data collection. First, there are other computing approaches such as artificial neural networks and genetic algorithms and fuzzy rule based modeling. In this methodology fuzzy linguistic participated for evaluating personnel. In further works may be researcher provides another effective mechanisms in modeling the decision maker's preference and to effectively handle the imprecision of the human decision making process in personnel selection problem.

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THE PRACTICE OF CARRIER DEVELOPMENT IN THE INTERNATIONAL HUMAN RESOURCE MANAGEMENT OF THE EUROPEAN COUNTRIES

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ABSTRACT

The function very close to the training in the management of human resources is certainly the human resource development. Specifically, the employees acquire new knowledge, abilities and skills during the training process, but also gain new experiences through various business tasks during their working life, developing themselves both, in private life and in the professional sense. Human resource development is seen as the development of the expertise of people through organizational development and training of employees in order of improvement of the performances. In this paper authors explored the practice of carrier development in European countries. Research was based on data from international project, CRANET, in the period from 2008 to 2010. Authors presented data about the usage of techniques for evaluation of career development and investigated obtained results.

Key words: human resource management, development, carrier, CRANET, Europe

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SERBIAN PRIMARY TEACHERS' JOB SATISFACTION

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ABSTRACT

This paper aims to examine Serbian primary teachers' job satisfaction. The participants were 362 teachers from 57 primary schools in Serbia. Nine dimensions of job satisfaction (Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Procedures, Co-Workers, Nature of Work, Communication) were measured. The results indicate that, from the dimensions of job satisfaction, Serbian primary teachers are most satisfied with the Nature of work, Communication and Supervision, while the major sources of Serbian primary teachers' job dissatisfaction are Fringe benefits, Pay and Operating procedures. Serbian policy makers in the field of education as well as school administrators should pay close attention to teachers' job satisfaction and its improvement considering that it is an essential to the continuing growth of school effectiveness.

Key words: primary teachers, job satisfaction, Serbian education system

INTRODUCTION

Serbian education system has been facing many challenges for the last two and a half decades. The biggest problems in the Serbian educational system are directly related to the social problems in our society. Painful years of war and sanctions, as well as a long and chaotic transition process that is still present in Serbia resulted in degradation of values in Serbian society which has negatively influenced the state of education in Serbia, the work of teachers and the reputation of their profession.

Peer violence and bullying have become frequent phenomena in many Serbian primary schools. Furthermore, teachers across the country are experiencing alarmingly high rates of student violence and harassment while at school, while parents' attitudes towards teachers range from total indifference to extreme aggression. The frequent changes of strategies, policies and directives governed by the Serbian Ministry of Education and not so successful attempts to comply them with those in European Union are very stressful for teachers making them feel lost and leaving no room for creativity or taking initiatives. Moreover, uncontrolled introduction of inclusive education caused a lot of troubles for primary teachers in Serbia. The biggest problem in the implementation of inclusion in education is that the preparations started late so the teachers were not sufficiently prepared or trained for the implementation of this process. Teachers' training through several short seminars for working with children with disabilities is inadequate, because dealing with such children requires highly educated and specially trained personnel.

The aim of this paper is to examine the level of Serbian primary teachers' satisfaction with specific aspects of their job considering all mentioned challenges they are facing with. Being the most important group of professionals for the nation's future, it is of great significance to understand the

sources of teachers' satisfaction and dissatisfaction in order to maximize their satisfaction and minimise dissatisfaction not only for the benefit of teachers themselves but for the sake of students and entire education system as well.

THEORETICAL FRAMEWORK

Job satisfaction is the pleasurable condition of a positive emotional state resulting from the appraisal of one's job or job experiences (Locke, 1976). It indicates the overall quality of one's experiences in one's work role (Kalleberg & Loscocco, 1983) and, according to Spector (1997), is a person's evaluation of his/her job and work context, i.e. an attitude reflecting how well people like or dislike their job. With respect to teachers, their job satisfaction can be defined as the feelings that they hold toward the job (Taylor & Tashakkori, 1995), or the state of mind determined by the extent to which they perceive their job-related needs as being met (Evans, 1997). According to Zembylas & Papanastasiou (2004), teacher job satisfaction refers to a teacher's affective relation to his or her teaching role and is a function of the perceived relationship between what one wants from teaching and what one perceives it is offering to a teacher. Lester (1982) defined teacher job satisfaction as the extent to which a teacher perceives and values various factors such as evaluation, collegiality, responsibility and recognition.

A teacher's level of job satisfaction is an important matter for many reasons. Woods and Weasmer (2002) suggested that when teachers are satisfied, the rate of attrition is reduced, collegiality is enhanced, and job performance improves. Teacher job satisfaction influences the quality of teaching and students' progress, and is a predictor of teacher retention and a determinant of teacher commitment, which contributes to school effectiveness (Shann, 1998). It is crucial for the quality of life, psychological health and self-actualization of teachers (Michaelowa, 2007). Demands from administrators, colleagues, and students compounded by work overload, shifting policies, and a lack of recognition for accomplishments make teaching a stressful occupation (Greenglass & Burke, 2003). Understanding factors that contribute to teacher satisfaction (or dissatisfaction) is essential to improving the information base needed to support a successful educational system (Perie et al., 1997). Exploring the issue of teacher job satisfaction provides a deeper understanding of teachers' mental state, such as their occupational attitudes, zeal for teaching, and work enthusiasm, which affects the quality of teaching and education (Fuming & Jiliang, 2008).

Teacher job satisfaction and dissatisfaction are influenced by a number of variables. Dinham and Scott (1998) suggested that the sources of job satisfaction and dissatisfaction may be classified into three domains: intrinsic rewards of teaching - the actual work of teaching, working with the students, and seeing students learn and develop, all of which are primary motives for becoming a teacher and a main source of satisfaction among teachers (Scott, Stone, & Dinham, 2001), factors extrinsic to the school which include imposed educational change, external evaluation of schools, negative portrayal of teachers in the media, and a decrease in the status of teaching, and school-based factors or contextual variables at school which include relations with colleagues, parents, and the school leadership, as well as time pressure, disruptive student behavior, and the values emphasized at the local school. Because teachers usually do lack many extrinsic rewards - high salaries, promotional opportunities, they mainly need to derive satisfaction from intrinsic sources, such as working with children and developing warm, personal relationships with them, the intellectual challenge of teaching, having autonomy and independence, developing social relations with colleagues and having opportunities for growth (Mykletun, 1984; Lathan, 1998; Lee et al., 1991; Lortie, 2002; Nias, 1981; Troman, 2000).

METHOD

Job satisfaction. Job satisfaction is measured by means of the Job Satisfaction Survey questionnaire (Spector, 1985). This questionnaire has 36 items relating to the nine dimensions of job satisfaction.

The dimensions of job satisfaction are: Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operating Procedures, Co-Workers, Nature of Work and Communication. The answers are measured by a 6-point Likert scale (1 - Strongly disagree; 2 – Disagree; 3 - Somewhat disagree; 4 - Somewhat agree; 5 – Agree; 6 - Strongly agree).

The research was carried out in Serbian primary schools. The questionnaires were distributed personally to all the teachers in the sampled primary schools. A total of N(0) = 383 teachers from 57 schools answered the questions. After the initial analysis, because of the significant dispersion of results, 21 questionnaires were rejected. Thus, the total number of respondents was N =362.

RESULTS

The descriptive statistics for the dimensions of job satisfaction are shown in Table 1. In the table, among other things, the names of the dimensions, the short names for each dimension (which are used hereafter), mean size, standard deviation, standard error mean and Cronbach's Alpha, are given for each dimension. The values of Cronbach's Alpha range in the interval from $\alpha=0.703$ to $\alpha=0.855$. Figure 1. represents the ranking of primary teachers' satisfaction with specific aspects of their job.

Table 1 Descriptive Statistics

Dimensions	Short name	Min.	Max.	Mean	Std. Dev.	Std. Error Mean	Cronbach's Alpha
Pay	JS1	1.00	6.00	3.0711	1.04518	.05493	.709
Promotion	JS2	1.00	6.00	3.4710	1.31547	.06914	.845
Supervision	JS3	1.00	6.00	4.6906	1.14312	.06008	.870
Fringe benefits	JS4	1.00	6.00	2.9544	1.34867	.07088	.838
Contingent rewards	JS5	1.00	6.00	3.5753	1.29203	.06791	.838
Operating procedures	JS6	1.00	6.00	3.2106	1.04305	.05482	.703
Co-Workers	JS7	1.75	6.00	4.5981	.93377	.04908	.784
Nature of work	JS8	1.50	6.00	5.2666	.84890	.04462	.855
Communication	JS9	1.00	6.00	4.8094	.95043	.04995	.827
Valid N (list wise)	362						

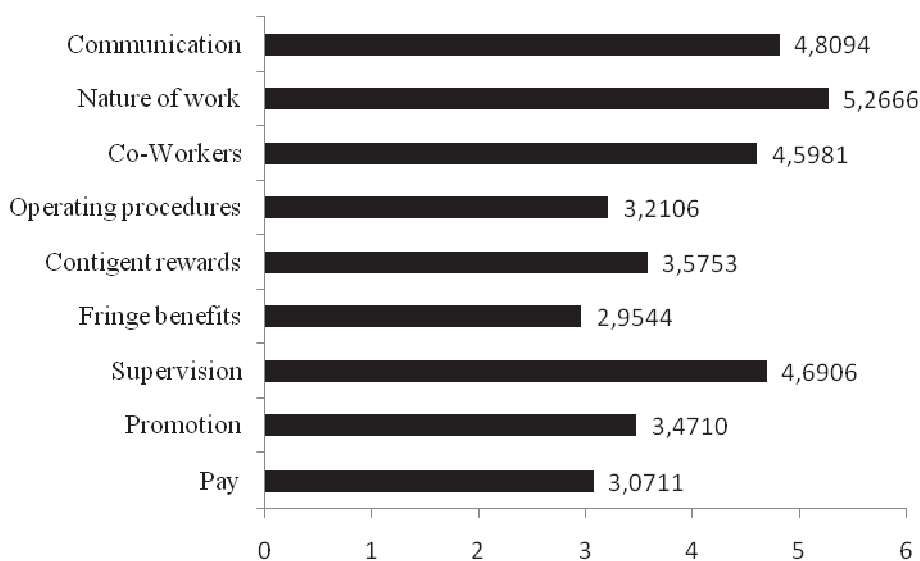


Figure 1 Serbian primary teachers' satisfaction with specific aspects of their job

DISCUSSION

Within descriptive statistics (Table 1), it is important to give consideration to the total average grade for all nine dimensions of teachers' job satisfaction which is 3.9308. This total average grade is not so bad considering the unfavourable status of teachers and teaching profession in Serbian society.

The highest average grades of all job satisfaction dimensions are evidenced for the JS8 - Nature of work, JS9 - Communication and JS3 - Supervision, while the lowest average grades can be noticed at JS4 - Fringe benefits, JS1 - Pay and JS6 - Operating procedures. These results indicate that Serbian primary teachers are focused on the intrinsic work satisfaction and value intrinsic or non-material satisfaction more than the extrinsic or material. They like being teachers, welcome the opportunities to work closely with colleagues to improve their pedagogical skills, are willing to overlook the lack of fringe benefits, low pay and remain in the teaching profession despite the heavy workload. The results are consistent with findings of Zhongshan (2000) whose study concluded that teachers are fairly or basically satisfied with the job itself, relations among colleagues, and school principal leadership – supervision.

According to Table 1, and Figure 1, Serbian primary teachers are most satisfied with JS8 – Nature of work meaning that their greatest pleasure comes from the core aspect of their work: teaching students. Teaching is a great profession with many precious opportunities to build a student's self-concept, contribute to their growth and development, help shape a dream, provide redirection, and impart knowledge and wisdom, as well as to be creative, explore different ways to teach some ideas and constantly improvise. Having these opportunities and acting on them is what Serbian teachers value most about their job. In their study, Yunying, & Shaobang (1994), also found that the nature of job was the main source of teachers' satisfaction.

Job satisfaction dimension JS9 – Communication also has a very high average grade (Table 1), indicating that teachers in Serbian primary schools consider communication with other school members to be a strong aspect of their satisfaction with teaching. Even if teaching is quite an autonomous profession (Clement & Vandenberghe, 2000), what makes Serbian primary teachers satisfied and means a lot to them is the opportunity to share opinions, solve problems together relating to students or teaching process, and to get constructive feedback on their performance from school administrators. According to Burnetti (2001), positive social relationships with colleagues are important sources of teachers' emotional health, because colleagues are seen as a source of friendship and a source of social and emotional support.

In terms of job satisfaction dimension JS3 - Supervision, a fairly high average grade can be noticed. In Serbia, primary schools are public institutions in which there is less uncertainty in the process of governance and management. In this regard, school principals are under less pressure compared to the leaders in other sectors. Consequently, teachers feel less pressure from the management, which results in increase of satisfaction with supervision.

Very low average grades of dimension JS4 – Fringe benefits and JS1 – Pay (Table 1), indicate that Serbian primary teachers are not much satisfied with how much they are paid as well as with compensations made to them beyond regular wages or salaries. This finding is not surprising considering the fact that, in Serbia, teaching is the lowest paid profession of all professions that require university degree. Besides being underpaid, primary teachers in Serbia are underappreciated, rarely provided with non- financial incentives, while the reputation of their profession has deteriorated in the past two and a half decades. There are also numerous studies, (Dinham & Scott, 1998; Osborn et al., 2000; Van den Berg, 2002), in which low pay is a factor that has been linked to teachers' dissatisfaction.

In terms of dimension JS6 – Operating procedures, a very low average grade can be noticed. Serbian primary teachers' dissatisfaction with operating procedures is real and understandable

Administrative tasks, documentation and paperwork associated with pupils' assessment, progress, behaviour, report writing and reporting to parents, and frequent changes of policies and directives governed by the Serbian Ministry of Education result in increased pressure among Serbian primary teachers and prevent them from focusing on teaching. According to the survey "Perception of educational changes in Serbia", held by the Institute for Educational Research (The Institute for Educational Research, 2012), that was conducted among 1800 teachers from 150 primary schools in Serbia, 88 percent of the participants thought that administrative requirements took too much of their time.

CONCLUSION

This study revealed that Serbian primary teachers are more satisfied with the intrinsic or non-material factors (Nature of work, Communication and Supervision) than with the extrinsic or material ones such as: Fringe benefits, Pay and Operating procedures. This suggests that while Serbian policy makers in the field of education should improve teachers' material remuneration, they should not ignore the teachers' needs for self-fulfilment or other such positive factors which should be protected and encouraged.

The findings demonstrate that there is an urgent need for Serbian responsible authorities to recognise the fact that educational quality is largely related to teacher job satisfaction and to strategize means of helping boost teacher satisfaction in Serbian primary schools. By incorporating mechanisms that will encourage professional development and teacher involvement in the planning process, decision making and implementation of change in the education system Serbian primary teachers' job satisfaction can be raised which will contribute to the quality of their teaching, to better student achievement, as well as to Serbian primary school effectiveness as a whole.

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THE CONCEPT OF ORGANIZATIONAL CULTURE AND ITS APPLICATION IN “TIGAR” CORPORATION

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ABSTRACT

The aim of this paper is to explain the concept of organizational culture, its significance to achieving business results, its importance in relation to employees, customers and suppliers, as well as its association with ethical behaviour. Organizational culture is a system of assumptions, beliefs, values and behavioural norms, which have been developed and adopted by the members of a particular organization, and therefore it affects the way they think and behave. The general concept of organizational culture is explained through mutually dependent elements such as: habits, values, beliefs, assumptions, attitudes, traditions, customs, and behavioural norms. Also, organizational culture is based on the interaction and communication between employees in an enterprise.

Key words: Organizational culture, the importance of organizational culture, “Tigar” corporation

INTRODUCTION

Each organization has its own organizational culture which can be said to be a set of employees’ activities and behaviours, and to differ depending on the size and activities of an organization. In order to achieve remarkable business performance, an organization should pay special attention to organizational culture, and always find a way to improve it. The success is reflected in the way all employees in the organization share beliefs and values, and adhere to certain rules of conduct. Organizational culture is determined by organization’s dominating values (Lauzen and Dozier, 1994) accepted by majority of employees (Wallack, 1983), as well as common norms and beliefs of organization’s members (Conner, 1992; Cummings and Worley, 2005). It is in a certain sense a philosophy that determines organizational policy towards internal and external surroundings (Pascale and Athos, 1981). Organizational culture is a seal of a company. It is a behaviour that is accepted by the company as its own way of doing things. Organizational culture is a group of behaviours and codes that people use to direct their interactions toward others, and it refers to formal, written company policy and the informal, unwritten behaviours that have become accepted by the group. (Stoppler, 2002).

The role of organizational culture is very significant because, it influences all aspects of business and life in a company, being linked to numerous organizational results (House et al., 2004). Through recognizable symbols, it creates a positive image of the company (Sajfert & Vukonjanski, 2008). Due to such image, many companies have become internationally recognized. The right organizational culture contributes to gaining competitive advantage and therefore achieving financial success. The right organizational culture can enhance productivity, quality, and morale leading to increased productivity and quality consciousness of workers. A culture that values the dignity of human beings fosters high morale and job satisfaction. Furthermore, a corporate culture

that encourages creative behaviour contributes to innovation about problem solving and decision making.

DIMENSIONS OF ORGANIZATIONAL CULTURE

Every organizational culture is based on creating certain ethical climate in a company, and respecting the rules of the company. Organizational culture is a way the company sees itself and its environment (Guptara, 1994). It influences the ethical climate of the organization and the ethical behaviour of its members. Robins & Coulter (2005) describe it as the shared values, principles, traditions, and ways of doing things that influence the way organizational members act. The dimensions of organizational culture help explain the subtle forces that influence employee actions. Describing an organization using them gives a composite picture of the organization's culture. Those seven dimensions are (Robins & Coulter, 2005):

- **Attention to detail** - Degree to which employees are expected to exhibit precision, analysis, and attention to detail.
- **Outcome orientation** - Degree to which managers focus on results or outcomes rather than on how these outcomes are achieved.
- **People orientation** - Degree to which management decisions take into account the effects on people in the organization.
- **Team orientation** - Degree to which work is organized around teams rather than individuals.
- **Aggressiveness** - Degree to which employees are aggressive and competitive rather than cooperative.
- **Stability** - Degree to which organizational decisions and actions emphasize maintaining the status quo.
- **Innovation and risk taking** - Degree to which employees are encouraged to be innovative and to take risks.

THE ROLE OF MANAGERS IN BUILDING AND MAINTAINING HEALTHY ORGANIZATIONAL CULTURE

The actions of top managers have a major impact on the organization's culture. It can be said that the managers are the most responsible for creating a positive culture in an organization. They primarily have to be prepared for a detailed analysis of each segment of the company. Also they have to be enterprising and ready for all the changes that are taking place outside the company and find the best ways to adapt to them. The managers are the ones who must do their best to convince employees that all actions that are undertaken in the company are important to them as individuals, but also to the entire organization.

According to DuBrin (2012), managers might do the following to bring about change and assure that a healthy corporate culture is maintained:

- Serve as a role model for the desired attitudes and behaviours. Leaders must behave in ways consistent with the values and practices they wish to see imitated throughout the organization.
- Establish a reward system that reinforces the culture, such as suggestion awards to promote innovation.
- Select candidates for positions at all levels whose values mesh with the values of the desired culture. Many firms hire only those candidates whose work and school suggest that they might be good team players— a cultural value.
- Sponsor new training and development programs that support the desired cultural values. Top management might sponsor diversity training to support the importance of cultural diversity, or training in quality to support the value of quality.

- Disseminate widely the type of cultural change required.

Top-level managers spend much of their time working with the forces that shape the attitudes and values of employees at all levels. Leaders in key roles establish what type of culture is needed for the firm and then shape the existing culture to match that ideal.

STRONG AND WEAK ORGANIZATIONAL CULTURE

All organizations have a culture, but some of them are distinguished by a very powerful and strong culture. Strong cultures are those in which the key values are deeply held and widely shared—have a greater influence on employees than do weaker cultures. The more employees accept the organization's key values and the greater their commitment to those values, the stronger the culture is. Strength of organizational culture depends on the size of the organization, the length of its existence and level of circulating among employees (Sajfert & Vukonjanski, 2008). Strong organizational culture is said to be the one where the key values are intensively nourished and strongly represented. What characterizes a strong organizational culture is great support from the staff members who believe in it and share that opinion throughout the company. Strong cultures insist on its way of doing things. Those cultures are characterized by not confronting organizational thinking, even if employees have different ideas. On the contrary, in organisations with weak culture organizational values are limited to a few people—usually top management, while other employees have little identification with culture because culture sends contradictory messages about what's important.

THE TRANSFER OF ORGANIZATIONAL CULTURE

According to Robbins & Coulter (2005) there are a number of ways to transfer organizational culture to employees. The most common are:

Stories - Organizational stories occur in all organizations and anchor the present in the past, provide explanations and legitimacy for current practices, exemplify what is important to the organization, and provide compelling pictures of an organization's goals (Pettigrew, 1979). They typically contain stories about past mistakes and reactions to them, rule breaking or various anecdotes related to the organization and its founders. Managers are usually the ones who retell the stories about the people who have helped the company's success while those who listen (employees) can learn a lot from them.

Rituals - Corporate rituals are repetitive sequences of activities that express and reinforce the important values and goals of the organization. Rituals are structured to promote both stability and change, to allow individuals or groups to transition among organizational roles, to maintain organizational status, or to build solidarity within the organization, depending on the specific ritual involved (Islam & Zyphur, 2009). All organizations have rituals - from the mundane everyday routines (coffee breaks, tea time) to major, less frequent events like retirement parties, annual meetings or annual awards ceremony which all play a significant role in establishing desired levels of motivation and behavioural expectations, which is, after all, what management hopes an organization's culture does.

Language - Language represents one of the most important symbols of organizational culture. Many organizations and units within organizations use language as a way to identify and unite members of a culture who, by learning it, attest to their acceptance of the culture and their willingness to help preserve it. Once learned, this language acts as a common denominator that bonds members. Some companies can be distinguished on the basis of its specific language and jargon that is determined depending on sector in which they operate. Over time, organizations often

develop unique terms to describe equipment, key personnel, suppliers, customers, processes, or products related to its business.

Material symbols - Material symbols convey to employees who is important and the kinds of behaviour that are expected and appropriate. The layout of an organization's facilities, how employees dress, the types of automobiles provided to top executives are examples of material symbols. Others include the size of offices, the elegance of furnishings, executive "perks" (extra benefits provided to managers such as health club memberships, use of company-owned facilities, and so forth), employee fitness centres or on-site dining facilities, and reserved parking spaces for certain employees.

CREATING AN ORGANIZATIONAL CULTURE THAT ENCOURAGES INNOVATION

In order to create an organizational culture that will encourage employees' innovative behaviour, managers of the company must take certain actions. Building organizational culture is a complex and long lasting process that is never completed and the successful management of organizational culture implies less spending and more savings, motivated and productive employees and an enviable reputation of the organization in the environment (Jovanovic, 1999). According to Ekvall (1996), an innovative organizational culture can be characterized by the following:

- **Challenge and involvement** – The emotional involvement of the members of the organization in its operations and goals. Are employees involved in, motivated by, and committed to long-term goals and success of the organization?
- **Freedom** – Independence in behaviour exerted by the people in the organization. Can employees independently define their work, exercise discretion, and take initiative in their day-to-day activities?
- **Trust and openness** – The emotional safety in relationships. Are employees supportive and respectful to each other?
- **Idea time** – The amount of time people can use (or do use) for elaborating new ideas. Do individuals have time to elaborate on new ideas before taking action?
- **Idea support** - The ways new ideas are treated. Do individuals listen to each other and encourage initiatives? Do they have possibilities for trying out new ideas?
- **Playfulness/humour** – The spontaneity and ease that is displayed. Is the workplace spontaneous and fun?
- **Conflict resolution** – The presence of personal and emotional tensions (in contrast to conflicts between ideas) in the organization. Do individuals make decisions and resolve issues based on the good of the organization versus personal interest?
- **Debates** – The occurrence of encounters and clashes between viewpoints, ideas, and differing experiences and knowledge. Are employees allowed to express opinions and put forth ideas for consideration and review?
- **Risk-taking** – The tolerance of uncertainty in the organization. Do managers tolerate uncertainty and ambiguity, and are employees rewarded for taking risks?
- **Dynamism/Liveliness** – The eventfulness of life in the organization. Are new things happening all the time in the organization? Do the alternations between ways of thinking about and handling issues often occur?

ORGANIZATIONAL CULTURE OF "TIGAR" CORPORATION

Like any other company, Tiger has its own organizational culture as well (Corporate values). However, what this company stands out from other competitors is just its unique organizational culture. First of all, it should be emphasized that, in "Tigar", everything is based on ethical behaviour and compliance with certain rules. Tiger is a big and powerful company that pays attention to every activity in the company and to every detail in order to maintain and enhance its

reputation, and thus to improve its business success. The managers of this company have a great responsibility for all operations and are required to work on maintaining relationships among all employees. Tigar's employees feel like they are part of a large family, and organizational culture itself is based on developing such feeling in order to employees feel comfortable and satisfied doing their jobs.

Respect of employees

The reason why they consider they employees as the highest value of the corporation lies in challenges they were faced with in the times that are behind them. With full appreciation to value and loyalty of the currently employed, the corporation is very active regarding the selection and preparation of future members of "Tigar" family because they want the employees' full participation in creating shared values underpinning the vision and corporate mission. In "Tigar" corporation, jobs can be obtained solely on the basis of qualifications and skills; which means that the company does not make a difference to national origin, affiliation, marital and familial status, or gender. Organizational culture in relation to the clothing and appearance of employees relates to compliance with the rules on dress code in the workplace for both men and women. Clothing involves a high degree of hygiene, cleanliness, simplicity and compatibility of colours. Working clothes must always be neat and clean and employees must come to work properly dressed, because it shows the seriousness, but what is special for Tiger is "a casual dress day" (once a week) when the employees are allowed to come to work in jeans or casual clothes. Communication among employees should be developed at a high level using the vocabulary that is understandable to everyone, while profanity or chewing gums are not allowed.

Respect of stakeholders and communication with them

In "Tigar" corporation, the users of their products and services are seen as final judges in relation to results of their business and production processes and activities, and therefore, meeting the needs and expectations of their current and future customers will remain as their primary responsibility. By aggressive development and investment policies and focus on achievement of key indicators of economic performance, they want to ensure above all, the profit that exceeds the level of expectations of their owners and to simultaneously meet the needs of all interested parties. The long tradition of "Tigar", characterized by a permanent development and improvement of its business performance, always meant building sustainable alliances, development of partnerships with all the relevant factors in the business environment. "Tigar" still remains open and ready for the establishment of new partnerships and improving of the already existing ones, based on clearly identified benefits for both sides, trust and mutual respect and openness. This company has a high degree of responsibility towards all stakeholders. What it stands out from other competitors is its special culture of communication in business activities. The company tries to promptly answer all business letters, within 24 hours. All the information that the company sends have to be true, checked, and in accordance with the law because they serve as evidence. When giving answers, this company is trying to answer concisely, accurately and precisely. When writing business letters, sentences that are short, clear and grammatically correct are used. Also, responding to emails must be within 24 hours. In telephone communication with business associates strictly must be taken into account what types of information are provided, the volume of the conversation, as well as not to express nervousness during the conversation.

Attitude toward environment and society

By environmental aspects of their business policy and by the statement of environmental protection, they determined themselves toward sustaining and further improving of the environment quality, fully aware of it stake in the overall quality of life. This is achieved through the optimization of production processes, quality products and services, controlled consumption of natural resources, especially energy and water, regular monitoring of performances of all aspects of environment and constant education with the goal to raise awareness of the importance of

environmental protection. Employees are expected to behave according to certain rules, laws, regulations, guidelines and procedures, depending on their job specifications. They all are well informed about the consequences that can happen on the job while performing certain activities. "Tigar" corporation highly values personal responsibility of every employee towards the environment because colleagues have the opportunity to see the ethical behaviour of their fellow members and adopt it slowly over time, which is of great importance for overall environmental awareness. Also, "Tigar" sees itself as a very responsible and active member of the society and it attempts to preserve such status and improve it. By the proactive relationship toward social community, especially toward the local environment, they want to establish unity of purposes and interests and to improve the image of their corporation, as an active contributor to stability and quality of the society

CONCLUSION

Many powerful and successful companies have already realized that creating healthy and unique organizational culture is very important factor which enables them to stand out from competition and cope with it on the global market. Therefore, those companies pay much attention to the improvement of all their activities relating to communication with employees, collaboration with suppliers, as well as to maintaining good relations with customers from whom they expect loyalty.

Considering that organizational culture represents the way things get done in a company, the goal is to continually improve and develop that way of doing things in order to create healthy organizational culture because healthy culture attracts productive employees, and productive employees help in building a profitable company.

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THE IMPORTANCE OF INTELLECTUAL CAPITAL IN MODERN BUSINESS

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ABSTRACT

In the new millennium, the manufacturing-based economy appears to be giving way to a “knowledge-based” economy. The increased velocity of commerce (especially through electronic commerce) and competition demands multi-faceted expertise from a firm. Only through the judicious and experienced application of knowledge can companies hope to outperform their counterparts and achieve sustained competitive advantage. This paper analyses the basic concepts of intellectual capital and its influence on business performance of organizations.

Key words: IC, intellectual capital, knowledge, intangible assets

INTRODUCTION

In post-capitalist economics, wealth flows not to those who control financial capital, but to those who can acquire and direct intellectual capital. The term “intellectual capital”(IC) refers to intellectual assets (i.e., skilled workers, scientific knowledge, and business information) which create knowledge into the future through their utilization (Carayannis, Alexander, 1998). Knowledge is becoming more and more important economic resource and is gradually replacing financial and physical capitals as the most important capital in the new economy (Hamzah, Ismail, 2008). Now that companies can source capital, goods, information and technology from around the world, often with the click of a mouse, much of the conventional wisdom about how companies and nations compete needs to be overhauled (Porter, 1998). But the human knowledge, mental power and ability of creativity and invention are something that holds its value. The speed at which new technologies are invented can change the destiny of entire companies for better or worse in a blink of an eye. Imagine a company that invents some new technology that could potentially give them a great advantage on the market. But in order to start using it, they must first train their workforce how to work with it. In this scenario, the employees who invented the technology, the technology itself, and the capabilities of all other members of the company to embrace and master the new technology are the key values that will decide the company’s success or failure. Though this was just an imaginary example, the fact is that similar situations are happening all the time in modern business. It is easy to understand how intellectual capital may affect the success of business activities, especially knowing the nature and trends in contemporary business environment.

TERMS “INTELLECTUAL CAPITAL” AND “INTANGIBLE ASSETS”

The amount by which the market value of a firm exceeds its tangible (physical and financial) assets less liabilities is what we can call intellectual capital. With physical and financial forms of capital, all three together make up the value of an enterprise. Measuring the real value and the total performance of intellectual capital's components is a critical part of running a company in the

knowledge economy and Information Age. Understanding the intellectual capital in an enterprise allows leveraging its intellectual assets. For a corporation the result will optimize its stock price (Wiederhold, 2013). In the post-industrial economy, it has become difficult to evaluate companies without taking into account nonfinancial or intangible assets. Intangibles are one factor that explains the divergence between public companies' book values and market values. The share of an enterprise's value that does not appear in the balance sheet is said to comprise between 30 percent and 400 percent, depending on the industry. This happens because enterprises' financial reports do not reveal some very important aspects that would interest every stakeholder. Just ask yourself if these factors are important when evaluating the future profits of a company:

- Corporate reputation
- Brand awareness and brand loyalty
- Customer intimacy (for example, satisfaction and loyalty)
- Supplier intimacy
- Organizational or process excellence
- Quality of human "capital"

None of these appears in quantitative terms in financial reports (Magrassi, 2002). Putting intangibles and tangibles on the one page offers up new insights about what creates value for your organization. Here's an example: using a traditional lens, we think of customers in terms of the revenue (tangible assets) we earn from them. A knowledge view recognizes that businesses may also earn intangible revenues from their customers.

Some customers (capacity-building clients) not only give companies revenue; they also build companies' skills and expertise in ways that set them up to attract new clients. They help them to create new human and organizational capital.

Some customers (image-building clients) not only give revenue, but also build company's brand or image in the market place (if x is a client of yours, you must be good!) (Andrews, 2009).

ELEMENTS OF INTELLECTUAL CAPITAL

Human Capital includes factors such as employees' know-how, education, professional qualifications, working knowledge, job competence and cultural diversity. Many more attributes can be present in the richer evaluation models. HC corresponds to human competence. It refers to people's ability to act in various situations. It cannot be owned by the organization, only by the person who possesses it. Some authors argue for including competence in the enterprise's balance sheet because it is impossible to conceive an organization without people. In some modern "bottom-up" methods, HC is the ultimate independent variable, as it determines organizational capital, which, in turn, determines the relationship capital, which is where clients and revenue exist.

Organizational Capital or **Structural Capital** (as used by some authors), is the sum of intellectual property (IP) and infrastructural capital (or internal relationship capital). IP includes: patents, copyrights, designs, trade secrets, trademarks and service marks. It is the part that is usually pointed out in intangibles assessment efforts; however, it is far from representing a comprehensive view of all intangibles. Infrastructural capital includes management philosophy, corporate culture, corporate values, management processes, information systems, networks, corporate strategy, sales tools, corporate databases and expert teams. Organizational capital is partly created by HC and partly acquired from the outside (for example, an information system, a patent or a trademark).

External Relationship Capital consists of relationships with customers and suppliers, brand names, trademarks and reputation or image. It includes factors such as brands, clients, customer intimacy, supplier intimacy, customer penetration, acquired orders, distribution channels, joint ventures, licenses and franchising agreements. Two enterprises that operate in the same industry

and have exactly the same number of clients can still differ in terms of external relationship capital. It follows that, even if they produced the same returns on equity and the same profits in the past fiscal year, their futures can be substantially different (Magrassi, 2002).

MEASUREMENT OF INTANGIBLE ASSETS

In recent years the recognition and measurement of intangible assets has been one of the most controversial areas of financial reporting. Many businesses now operate and compete with significant intangible assets such as brands, knowledge capital and people. Chief executives of these businesses clearly accept that some intangibles, particularly internally generated ones, are difficult to value. However, there has been criticism that accounting practice in this area is out of date, unhelpful to users and in need of reform. It would appear that with regard to intangibles, reliability has superseded relevance (M&M Kelly, 2010). In recognition of the disparity between the knowledge enterprise and the current accounting practices, many standards bodies are attending to the classification and definition of intangibles. For example, the U.S.'s Financial Accounting Standards Board has recently adopted new rules for treating some intangibles (categorized as marketing-related, customer-related, artistic-related, contract-related and technology-related), thus effectively turning them into financial assets (that is, no longer "intangible") (Magrassi, 2002). When undertaking the effort to measure intellectual capital one could very easily recognize the difficulties which are inherent to this kind of asset. Therefore the measurement of intellectual capital was historically often ignored or belittled; its presentation and discussion precluded or subject to potentially crushing liability and consequently its management considered to be difficult. In some cases Intellectual Capital seemed to be viewed more as a liability than an asset (Müller, 2004). More recently, the measurement of intangibles drew much more attention, but the difficulties are the same, if not worse, because in the last several years the field of intellectual capital became even more complex. Nevertheless, the amount of methods and approaches which try to overcome these obstacles is most impressive. Basically four different categories of Intellectual Capital measurement methodologies can hereby be distinguished which all have their pros and cons:

- Direct Intellectual Capital Methods
- Focusing on measuring Intellectual Capital directly
- Market Capitalization Methods
- Deriving the value of Intellectual Capital from market capitalization
- Return on Assets Methods
- Using the ratio of the ROA to define the value of Intellectual Capital
- Scoreboard Methods
- Trying to determine the value of Intellectual Capital by considering the different aspects of a company's strategy

INFORMATION REVOLUTION AND KNOWLEDGE ECONOMY

Social and economic changes that are happening in the world today are similar in magnitude and importance as those that happened during The Industrial Revolution, which began in Britain in the 18th century. Back then, revolution was the direct consequence of a major invention, the steam engine. Its use led to dramatic increase in production capacities. This triggered major transformation of society - productivity boost, urbanization, growth of population, many great inventions, forming of trade unions, the working class struggles and the compromise of the dominant class - and thanks to all those social, industrial, economic and scientific changes the standard of living is now spectacularly higher than in the 18th century. However, technological revolutions did not have only positive consequences on workforce. The Industrial Revolution also led to unemployment and, at the beginning, lower real wages. At the beginning, there was also intensified exploitation, greater insecurity, and increasing human misery. The new working class organized itself in unions and won new work and wage conditions. So this technological boom

was the agent not only of industrial but also of social revolution, producing not only more goods but also the “Labor Movement” itself. The Marx’s proletariat lost struggles against the bourgeoisie but the class consciousness was growing and new political thoughts emerged. Some 200 years and two world wars after this social “earthquake”, the ground finally seemed to settle for some time. And then it was time for another “shake”. It is happening right now, and most authors call it The Information Revolution or The Information Age. Like the steam engine during the First Industrial Revolution, the Information and Communications Technology (ICT) has completely changed the way society organizes its economic activity. While the 18th or 19th century’s machines replaced the manufacturing worker, the Information and Communication Technology—computers, computerized machinery, fiber optics, communication satellites, Internet, and other ICT tools—became a significant part of the economy. This changed the way of performing conceptual, managerial, and administrative functions and of coordinating the flow of production, from extraction of raw materials to the marketing and distribution of final goods and services. Computer-based automation has led to a major decline of the global labor force, whether in the manufacturing sector or in the newly evolved service sector, which had been absorbing for more than forty years the job losses in the manufacturing sector. What John Maynard Keynes (1930) already called “technological unemployment” in *The General Theory of Employment, Interest and Money*, is now facing the entire society. As Peter Drucker (1994) argues, in the new economic order, the knowledge has displaced the labor and the capital as the key factor of production. While millions of low-skilled workers and an increasing number of suburban middle-income wage earners feel the bite of re-engineering and the impact of technological displacement, a small elite of knowledge workers, entrepreneurs and corporate managers reap the benefits of the high-tech global economy. This new social order in which inequality is based on knowledge represents a major challenge (Humbert, 2007). The Information Age has impacted the workforce in several ways. First, it has created a situation in which workers who perform tasks which are easily automated are being forced to find work which involves complex tasks that are not easily automated. Second, workers are being forced to compete in a global job market. Lastly, workers are being replaced by computers that can do the job more effectively and faster. This poses problems for workers in industrial societies, which are still to be solved. However, solutions that involve lowering the working time usually find high resistance. Jobs traditionally associated with the middle class (assembly line workers, data processors, foremen, and supervisors) are beginning to disappear, either through outsourcing or automation. Individuals who lose their jobs must either move up, joining a group of “mind workers” (engineers, doctors, attorneys, teachers, scientists, professors, executives, journalists, consultants), or settle for low-skill, low-wage service jobs. The “mind workers” are able to compete successfully in the world market and command high wages. Conversely, production workers and service workers in industrialized nations are unable to compete with workers in developing countries and either lose their jobs through outsourcing or are forced to accept wage cuts. In addition, the internet makes it possible for workers in developing countries to provide in-person services and compete directly with their counterparts in other nations. This has had several major consequences, including increased opportunity in developing countries and the globalization of the workforce. Workers in developing countries have somewhat increased opportunities, but the full impact on the workforce in developing countries is very complex. In the past, the economic fate of workers was tied to the fate of national economies. For example, workers in the United States were once well paid in comparison to the workers in other countries. With the advent of the Information Age and improvements in communication, this is no longer the case. Because workers are forced to compete in a global job market, wages are less dependent on the success or failure of individual economies. Industry is becoming more information-intensive and less labor and capital-intensive. This trend has important implications for the workforce; workers are becoming increasingly productive as the value of their labor decreases. However, there are also important implications for capitalism itself; not only is the value of labor decreased, the value of capital is also diminished. In the classical model, investments in human capital and financial capital are important predictors of the performance of a new venture. However, as demonstrated by Mark Zuckerberg and Facebook, it now seems possible for a group of relatively inexperienced people with limited capital to succeed on a large scale.

EXAMPLE OF EFFECTS OF IC ON BUSINESS PERFORMANCE

Many examples can be found about companies' success or failure on the market that are at least connected to intellectual capital. We will present one of the more recent about the universally known company. One of the global technology giants, Japanese Sony, is having losses for several years in the market of smart TVs. Former Sony executives and current employees blame the fall of the firm on the loss of brainpower and good employees during the reign of Nobuyuki Idei, from 1999 to 2005. The Japanese electronic business, which led the Japanese business world after the war, was leading the world's electronic industry, offering a very advanced technology. In that golden age, when Sony engineers were free to do what they wanted, even though they sometimes concentrated on technology that was unrealistic or hard-to-commercialize, they also made fantastic innovations that conquered the global market with advancement and quality. Sony was fit to develop new technologies. Sony's corporate culture was "free and open-minded" and independent business units worked well under the charismatic Mr. Akio Morita. Morita would only interfere with matters when there were conflicts among company units. However, under Mr. Idei, the loose structure of Sony became very vertical. Engineers became less esteemed or saw going into management as more desirable than remaining in the technological arena. Idei was the first Sony CEO to rise up entirely from a management background and in the "Who-killed Sony?" articles, he is regularly the prime suspect. A middle manager at Sony, on background, recalls the Idei age. "Idei decided to streamline the company and do massive restructuring. When we say, 'restructure' in Japanese—we really mean get rid of people. He put together an early retirement plan and strongly encouraged people to use it. Well, that didn't generate a lot of good feelings. When a company starts promoting early retirement, most people take that as a sign to get out while they still can. And many did. Maybe the idea was that by getting rid of the middle aged and older employees they'd encourage innovation and bring in some young blood. The effect was more like shooting yourself in the foot." What was even worse is that during this period, Korea and Taiwan immediately welcomed the exiting Sony techies with open arms. It was better than industrial espionage—Samsung could openly 'buy' the technology that Sony had developed simply by rehiring their best and brightest. Taiwan and Korea hired the retired Japanese engineers and field technicians for a very good deal, so they learned the Japanese technology very quickly. And in those countries, the manpower costs are very cheap. And with the Japanese high yen, all these things contributed to the fall of Sony. When it comes to technology these technicians were like pure gold for LG, Samsung and others. According to the Sony veteran, the middle-aged engineers and technicians that left were the same ones that brought Sony to greatness. They left behind a younger generation that was insecure, afraid of failure, and only willing to work with technology already in place—not build from the ground up. According to The New York Times: "In the company's financial year that ended in March 2012, it projected a record net loss of ¥455 billion—the equivalent of \$5.7 billion. It was Sony's worst loss ever, as an additional tax expense hurt a company already battered by heavy losses in its television business, a strong yen and natural disasters in Japan and overseas. (Adelstein, Stucky, 2012) This is just one clear example how bad management of company's intellectual capital can influence a decline on the market.

CONCLUSION

Intellectual capital is the key driver of today's economy. External relationship capital produces the financial results: It is the first factor to consider when maximizing future enterprise profit. However, because external relationship capital is strongly determined by organizational capital, the latter also becomes an important factor in enterprise performance. All of its attributes must be optimized. In addition, because organizational capital can either be created by HC or acquired, the quality and performance of people and clever acquisitions are critical for an enterprise's success (Magrassi, 2002). Technology is moving so quickly, and in so many directions, that it becomes challenging to even pay attention—we are victims of "next new thing" fatigue. Yet technology advancement continues to drive economic growth and, in some cases, unleash disruptive change. Economically disruptive technologies—like the semiconductor microchip, the Internet, or steam power in the Industrial Revolution—transform the way we live and work, enable new business models, and provide an opening for new players to upset the established order. (Manyika, Chui,

Bughin, Dobbs, Bisson, Marrs, 2013) Business leaders and policy makers need to identify potentially disruptive technologies, and carefully consider their potential, before these technologies begin to exert their disruptive powers in the economy and society.

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RECRUITMENT PROCESS BASED ON KEY COMPETENCIES

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ABSTRACT

Adequate selection of human resources and recruitment process are vital to survival and competitive advantage of all companies. For an organization to respond to the demands of the modern age, it is necessary to perform quality and efficient recruitment, select the right people for the job, efficiently use human resources, and make decisions based on current information. Experience of many organizations shows that, when combined with an assessment of knowledge and experience, using competencies improves accuracy in assessing people's suitability or potential for different jobs. Focus of this paper is to determine key competences, present model of competencies and potential benefits of using this approach during recruitment process to employers and prospective workers.

Keywords: key competencies, competency model, selection criteria

INTRODUCTION

The success of any company is directly linked to their employees, and adequate selection of human resources therefore has a long-lasting impact on work. Those companies that are better equipped to select and retain high-quality employees will achieve competitive market advantage. Selection can be defined as the process of choosing job candidates from a previously generated applicant pool in a way that will fulfill management objectives, as well as current legal requirements (Catano, Wiesner, Hackett & Methot, 2005). Each job description requires a certain knowledge, skills and abilities that will enable prospective candidates meet the needs of the employer.

The occurrence of concept of competences twenty years ago brought numerous attempts to define the term, various models were soon developed, and its practical application has increased. The first model of competences was introduced by Boyatzis (1994), with the aim to identify characteristics of superior managers. According to Dalton (1997) a competency model describes "motives, traits, and so forth as a set of desired behaviors for a particular job position or level". As such, a competency model is an "occupational profile" typically developed for individual occupations but also extensible to occupational groups (Rodriguez, Patel, Bright, Gregory & Gowing, 2002). Competency models are used to tie job specifications to the organizational strategy; the competencies then function as a common language (Lievens, Sanchez & De Corte, 2004) which is used to identify the critical success factors driving performance in organizations (Delamare Le Deist & Winterton, 2004).

In the conditions of unemployment and high pressure to rationalize production, as a result of increased competition, it is crucial to hire the best people for the company. In other words, technological and organizational changes lead to an increased need for staff equipped with higher

and better skills (Borghans, Green & Mayhew, 2001; Elias & McKnight 2001; Green; Stasz, 2001) which is primarily achieved through education and training (Borghans et al., 2001).

Expert recruitment and orientation of employees enables assigning the employees on the basis of their skills, attitudes and work motivation. Although there is no direct and linear relationship between recruitment of personnel and organizational efficiency and performance, it is reasonable to assume that improved personnel selection will result in better performance (Kurtz & Bartram, 2002). In addition to potential benefits directly related to a good recruitment, there are lower costs of poor selection of candidates, as well as the risk of rejection of good candidates who can be hired by competitors (Robertson, Callinan & Bartram, 2002).

The question is what are the capabilities and skills and competencies, which a candidate should possess so he could be chosen. In addition, there is other potential problem also, that candidate's wishes and potentials sometimes are not aligned with demands of those who do the hiring.

CLUSTERING COMPETENCES

In response to the above question, numerous studies have been conducted. In terms of qualities and skills a candidate should possess, there are two types of competencies: field-specific competencies and generic competencies. Generic competencies can be defined as the combination of learning, analytical and problem-solving abilities applicable in various domains (Heijke, Meng & Ris, 2003). Several studies investigated the role of key competencies for the labour market (Borghans et al., 2001; Stasz, 2001; Heijke et al., 2003). Some emphasize the role of field-specific competencies on labor market outcomes, while others stress the importance of generic competencies (Stasz, 2001). According to Ruetzler et al. (2010), there are six criteria to evaluate a candidate: academic grade point average (GPA), interpersonal skills, interview preparedness, the ability to work with others, alignment with organizational culture, and work experience.

Academic grade point average. Since a student's primary "job" is to study academic materials, a student's GPA is often seen as the equivalent of an employer's performance evaluation. The use of the GPA as a selection variable is controversial; however, when a job candidate has limited work experience, the GPA provides an apparently objective criterion to which recruiters can turn in screening applicants and establishing a candidate's potential (Kuncel, Hezlett & Ones, 2004). Although some studies suggest that overall GPA is not considered to be an important selection criterion (Baker & McGregor, 2000; Guo, Adams & Price, 2009), there is support elsewhere for the proposition that GPA is used as a selection tool and may well be important when identifying a set of candidates to be interviewed (Roth & Bobko, 2000). Additionally, Baker and McGregor (2000) found that, even though the value of the GPA varied among the five groups examined in their study, all groups maintained that GPA should be included in candidate analysis.

Interpersonal Skills. These include listening as well as oral and written communication abilities, are widely identified across the literature as important competencies. Interpersonal skills—sometimes referred to generically as communication skills—have been ranked among the five most important skills for entry-level managers by hospitality industry leaders (Chung-Herrera, Enz and Lankau, 2003; Fjelstul, 2007; Mayo and Thomas-Haysbert, 2005; Tesone & Ricci, 2005). In fact, Mayo and Thomas-Haysbert (2005) discovered that hospitality professionals ranked interpersonal skills as the most important competencies for hospitality graduates. In studies comparing the perceptions of students, faculty, and industry representatives, communications skills have held strong as an important skill across all groups (Baker and Harris, 2000; Baker and McGregor, 2000).

Interview Preparedness. Little research exists that directly examines the preparedness of a candidate for an interview or the impact of such preparation on job offers. A recent study addressed the effects of preparation for interviews that involves faculty members conducting mock interviews so that candidates can "rehearse" performing in the interview setting, concluding that mock

interviews lead to increased confidence and enhanced interviewing skills (Hansen, Oliphant, Oliphant and Hansen, 2009).

Ability to Work with Others. Having the ability to work with others involves being able to work as a team member as opposed to behaving as an individual who prefers to work alone, or does not like to help others. Being team-oriented is a highly valued trait in the most industries. Tesone and Ricci (2005) found that the ability to work as part of a team was the number one skill identified by industry practitioners. In Fjelstul's (2007) research, teamwork ranked as the second most important skill. Baker and Harris (2000) discovered that students who specialize in technology or information systems felt that the ability to work with others was one of the two most important traits in the eyes of recruiters. Other research has addressed closely related personality traits, such as having a sense of humour, without using the term "teamwork", in attempting to identify the foundation for a team-oriented attitude (Guo et al., 2009). Furthermore, the successful candidate should share similar values and beliefs with their future colleagues and complement them regarding personal quality and characteristics.

Alignment with Organizational Culture and mission occurs when a candidate's values and beliefs are consistent with those espoused in the organization's internal literature, such as its mission statement. An employee's "emotional commitment" and sense of identity with a company lead to greater employee and firm performance (Hemp, 2002). A meta-analysis conducted by Kristof-Brown, Zimmerman and Johnson (2005) found that person-organization (PO) fit, the compatibility between a person and an organization, correlated significantly with the intent to hire and with actual job offers. Also, it would be desirable for the personality of the person selected, his/her values and beliefs and culture and the values of the company to coincide in order to avoid a situation that requires the new employee to perform tasks that he or she essentially disagrees with or disagrees with the way they are conducted and how business of the company is run in general. Namely, if there is no agreement regarding these matters, it will result in job dissatisfaction, reduced unity of the team, under-performance at work and high staff turnover or frequent changes of staff.

Work experience. Like GPA, work experience is another controversial selection variable. In fact, when work experience is stronger, GPA is less likely to be a factor in screening applicants. Most students see themselves as having work experience through internships or practicum; industry does not necessarily perceive that exposure as ideal, however, since it is typically operational and managerial. Industry tends to consider students to be "overqualified but under-experienced" (Raybould and Wilkins, 2005). Nevertheless, empirical research has suggested the importance of combining both hospitality education and work experience for hiring entry-level managers and their future success in the industry (Guo et al, 2009).

Vormann (2008) in his doctorate provides an overview of the aforementioned competency facets and the skills, abilities, and attributes that represent them. Based on Boettger (2004); Hufnagl (2002); Lenzen (1998) he compiled competency grid (see Table 1). According to Sonntag and Schmidt-Rathjens (2004), four clusters are predominantly used in the German HR context: (1) subject, (2) social, (3) method, and (4) personal competencies. This framework has also been taken up by the Cassel Competence Grid (CCG, cf. Kauffeld and Grote, 2000; Kauffeld, 2006) as well as by other authors (Hufnagl, 2002). For the analysis of the impact that applicant competencies exert on the selection decision, these four clusters are supplemented by a fifth cluster which is particularly salient in emerging organizations (entrepreneurial competency). Subject competency-sometimes called professional, functional or technical competency (Delamare Le Deist and Winterton, 2005; Berge, de Verneil, Berge, Davis and Smith, 2002; Kauffeld, 2006) can be obtained by education and professional experience. It is the possession of technical knowledge and the ability to use it appropriately. Social competency, sometimes also labelled interpersonal competency or social intelligence, is the ability to interact with other people cooperatively and to communicate properly (Baron and Markman, 2003). According to Meichenbaum and Butler (1981), it comprises of behaviours, cognitive processes, and cognitive structures. Socially

competent people are able to seize thoughts, emotions, and attitudes of other people, to be empathic, and to adequately communicate in different situations.

Table 1: Competency grid (Vormann, 2008)

Subject	Social	Personal	Method	Entrepreneurial
Education	Communication skills	Learning aptitude	Decisiveness	Strategic thinking
Work experience	Cooperativeness	Flexibility	Ability to abstract	Responsibility
Specialized skills	Ability to work in teams	Mobility	Organizing skills	Identification with the firm
Foreign languages	Empathy	Charisma	Problem-solving skills	
		Analytical skills	Analytical skills	
		Creativity	Autonomy	

Method competency is related to cognitive competency and comprises the ability to think and act in an insightful and problem-solving way (Delamare Le Deist & Winterton, 2005). It is the knowledge of what to do when, and includes the disposition to find adequate ways for resolving complex problems and situations and to use them in a resourceful manner (Sarges, 2000). Furthermore, it comprises the cognition and usage of proper methods of organizing, time-management and knowledge-management. Namely, a common mistake is that by hiring a highly intelligent person who has demonstrated the highest level of skills and knowledge, this person is expected to automatically show maximum success at work. Quite the opposite can happen – such persons, if they do not find the work sufficiently challenging and interesting in accordance with their knowledge and skills, show poor performance at work or may even be counterproductive.

Personal competency, sometimes (Kauffeld, 2006) labelled as self-competency, can be understood as the disposition to act considerately and deliberately. It comprises the ability to reflect the own person and behavior critically and to develop as well as to modify emotions, motives, attitudes, and values (Sarges, 2000). Furthermore it includes the individual’s willingness to create conditions in order to grow in the process of work (Kauffeld, 2006).

Entrepreneurial competencies comprise acting efficiently and farsighted as well as thinking strategically and visionary while taking into account the benefits and costs of an undertaking. Bolt-Lee and Foster (2003) refer to them as “broad business perspective competencies” and include strategic and critical thinking, a strong client focus, and leveraging technology to develop and enhance a broad business perspective.

In essence, the competencies that successful candidate should possess can be divided into those that are necessary, which candidate must possess to be able to adequately perform the job, and those that are desirable to be successful in the job. The mere specification includes a description of the necessary requirements, such as: (1) knowledge (education, qualifications, training, work experience), (2) skills (practical skills acquired through learning and practice), (3) potentials (capacity for further development of a person, including the ability to acquire new knowledge and skills), (4) traits and competencies (communication skills, conviviality, organizing skills, ambitiousness, analytical skills, systematic thinking, creativity, perseverance, courtesy, meticulousness, dedication, precision, independence, etc). However, not all competency clusters might be of the same importance to a selection decision.

DISPUTABLE SELECTION CRITERIA

A selection criterion which cannot be justified by work requirements is disputable. In practice, the most frequent disputable criteria are gender, age (younger candidates are preferred, usually up to 35 years of age), and the candidate’s appearance, when candidates are shortlisted based on their photographs. Although there are situations where candidate’s gender, age and appearance are important for success on the job, this is usually not the case. For example, previous work experience can be a relevant criterion in candidate selection, but is limiting to a large number of

quality candidates who may not have previous work experience, but have the necessary potential and informally acquired knowledge which can enable them to quickly manage the work; especially if there is an experienced person in the company who could introduce them to the job. Therefore, if we are not hiring a person for a higher position, previous work experience can be a disputable selection criterion if it is compulsory condition.

In any case, if any of the criteria is disputable, it is necessary to consider whether listing this condition is indispensable or consider rephrasing it so it would not be misinterpreted as discrimination. If the company values their image, they will have to assure that candidates do not see them as a discriminatory employer, since this indicates a lower level of professionalism, which can defer high quality candidates, and start a negative reputation with the general public.

CONCLUSION

Competency models are a viable tool that can be utilized to prepare the current and future workforce and retain skilled workers to meet the job requirements and other needs of employers. Furthermore, for career exploration and development purposes and during times of job change, whether by choice or due to market changes, competency models are an assistive device for individuals to focus on their current competencies and refocus or enhance their competencies as necessary. With the knowledge and use of the information contained within a competency model and awareness of their individual competency strengths and weaknesses, individuals may manage their future job or career success, navigate their current chosen career pathway, or apply the information to examine new career opportunities, considering the utilization of transferable competencies. Focusing on key competencies of candidates in the recruitment process can potentially cut recruitment costs, improve the process of reviewing thousands of resumes and conducting hundreds of interviews, and can enable managers to focus on a smaller number of efficient candidates.

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THE IMPORTANCE OF THE SKILL TO BUILD GOOD RELATIONSHIPS AND COOPERATION AS LEADERSHIP STRENGTHS

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ABSTRACT

The skill to build good relationships and cooperation is an essential strength of each leader. In the digital age, they are becoming increasingly more important and complex than they were in the past. Given that at the age of information technology the possibilities and forms of communication and interaction are enormously increased (e-mail, audio and video conferencing...) there is a need for a greater sensitivity to the nuances of interpersonal interactions. When using digital aids it is impossible to observe gestures, facial expressions, body language, which support ideas. For this reason there is a need for exceptional interpersonal skills not only in personal but virtual communication as well.

Keywords: building good relationships, leader, trust, inspiration, empathy, idea

INTRODUCTION

Good relationships between managers and subordinates lead to many benefits such as: higher productivity, better problem solving, providing higher quality products and services, and less conflict. Building good relationships with co-workers is an important task and responsibility of managers. For this reason there is a list of activities and behaviours that managers can undertake in order to contribute to the development of good relationships (Bahtijarević-Šiber et al., 2008)

- building and maintaining mutual trust;
- inspiring associates;
- ability to show empathy;
- encouraging expression of ideas, opinions and standpoint;
- giving feedback.

BUILDING AND MAINTAINING MUTUAL TRUST

It represents a skill which implies the ability to develop mutual trust, openness to the opinions and ideas of others, creating a pleasant environment that encourages expressing opinions. To put it differently, trust is a person's belief in other people's intentions and motives and sincerity of their words. Generally, it means expecting that one can rely on the word, promise, verbal or written statement of another person or a group. The concept of trust includes five dimensions: (Bahtijarević-Šiber et al., 2008)

1. integrity - honesty and truthfulness;
2. competence - professional and interpersonal knowledge and skills;
3. consistency - reliability, predictability and good judgment in problem solving;
4. loyalty - willingness to protect a person;
5. openness - willingness to share ideas and information freely.

A long and patient work is required of managers in order to build trust which they can however destroy in a moment of dishonesty. Managers must not forget that trust is the foundation of a good relationship.

There are other concepts of trust as well, such as the model of trust in leadership which in Figure 1 identifies four competencies that a leader needs to develop in order to build “radical trust”. The good news is that most people develop some level of these competencies. However, the problem with most people is that they are really good at some of these competencies, but the weaknesses of not possessing others are the ones that cause the costs.

For example, there are a lot of managers who are exceptional in execution trust, but cannot move to the next level due to the lack of competence in communication and loyalty. This is related to entrepreneurial types that produce results, but annoy people at the same time. Careers of these entrepreneurs often come to a halt when they start to progress to higher levels of management which require knowledge of social skills.

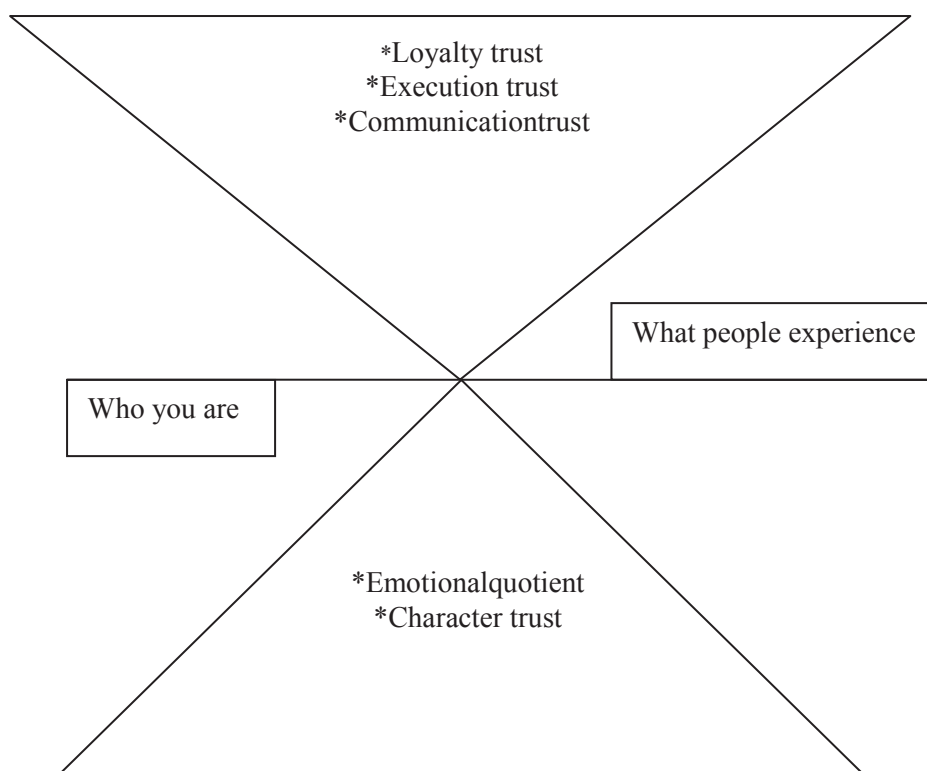


Figure 1: Healey leadership trust model (Healey, 2007)

Alternatively, there are many talented communicators who enjoy great popularity, but do not have execution trust and cannot rely on delegation. There is also a large number of managers who are experts, but fail in management as they need to build execution or communication trust.

Below is an overview of the four competencies required to achieve the full concept of radical trust, i.e. leadership trust (Healey, 2007).

1. Character trust - the way in which managers, as leaders, enable the use of the values that lead to execution and communication in order to gain other people’s trust and loyalty. Leadership skills required in business today are transparency, directness, determination, energy, and many others that managers need.
2. Execution trust - is related to the things which managers do and which they are able to give others to do. This is related to people's trust in the promises of managers to delegate tasks and actions or goods and services at the right time. New managers often identify this as a

serious fight as they find it hard to learn to “juggle” with competing demands. Middle and senior managers view execution as extremely discouraging at the time of change.

3. Communication trust - enables people to believe in what their leaders tell them and what they teach them. A frequently used mantra in organizations is that 90% of problems arise from communication. It is surprising how much easier it is to be an effective leader, i.e. communicator when the character focuses on the message.
4. Loyalty trust - means that people believe that managers care about them and their interests. This encourages them to accept the risk - to work harder in order to achieve common goals, since they believe that their superiors “watch their back”.

INSPIRING ASSOCIATES

The ability of a leader to inspire associates which will generate excitement and common aspiration to successfully achieve goals and mission of the group or organization. Inspiring others is an essential part of the new transformational leadership. The manager motivates employees through the following activities: (Bahtijarević-Šiber et al., 2008)

- furthering the development of the talents of others;
- recognizing the contributions of others;
- training others to feel like leaders;
- encouraging others to express their opinions;
- creating enthusiasm for projects and assignments.

There are three fundamental characteristics that are vital in order to make inspiration come to life. These attributes are the cornerstone of what it takes to inspire and motivate others (Zenger et al., 2009)

1. Role model - a model through which people learn how to behave. The easiest way to master this ability is to follow those who are successful and try to imitate their behaviour. This process lasts for the life of the individual.
2. Change champion - it has been noted that one of the main differences between leadership and management is that the leader’s role is implementing change. If the leader truly inspires others, then the ability to motivate the change of any kind is the key ingredient. Maintaining the status quo does not require much inspiration and motivation. Progress requires change, but we know that if people are not sure about the impact of change on them personally, it is likely that some of them will resist the change. It goes without saying that if people see changes as having detrimental effect on them, they will definitely resist them. Thus, a leader who is responsible for new directions and strategies, growth, adapting to competition, or any other changes needs to be able to treat and maintain the changes effectively.
3. Initiator - if leadership is the manager’s trademark, it is in the role of the initiator. Good or bad, well done or not, with or without an effective team, the leader wants to be the initiator. Energy and desire for change require a catalyst, and in the role of the initiator, the leader has the responsibility to accept the role of a model. The best managers are those who become the cause of direction or event. They do not wait for others to choose the path. One of the responsibilities of a leader is to consider the overall picture in order to see problems and opportunities and anticipate appropriate actions. Taking the initiative and taking action is what unlocks the power of strategic perspective. These are the leaders who stand out and allow things to happen.

ABILITY TO SHOW EMPATHY

“Empathy or understanding and appreciation of the feelings and needs of others and a caring attitude towards them is the ability to understand others and to view things from their perspective. In other words, it is the ability to sympathise with others, understand their needs and feelings,

accept individual differences, the right to personal attitudes and privacy in personal matters.” (Bahtijarević-Šiber et al., 2008) It is a key skill in global economy which enables smooth relations with colleagues at work and doing business with people from other cultures. Leaders with developed empathy are capable of understanding different attitudes and emotions of others, even when unexpressed. Empathy is a prerequisite for successful management of other people’s emotions.

In relationships with their associates, empathic managers clearly show that they care about the needs, feelings and desires of others and consider them when solving business problems or deciding on matters relevant to that person. This behaviour of the manager causes greater loyalty and quality of interpersonal relationships.

John Davies, CEO and founder of “Davies Public Relations” believes there are “11 secrets” for emphatic management: (Nadler, 2011)

1. Touch the heart - Davies agrees that engaging the audience, clarifying or emphasizing a message, effective give-and-take, and fine-tuning your delivery are crucial elements in successful communication. He also strongly believes that Stars “touch people’s hearts” with their words. Effective communication is really more emotional than logical. Many of the strategies below synergize to arouse other people’s emotions.
2. Understand what people want -Davies is deeply concerned about what his clients want. In an initial meeting, instead of talking about his capabilities and interests as many firms do, he focuses on asking pertinent questions of his client, to better understand their needs, goals, and vision of success. Davies wants to assess whether or not he can create added value for the client.
3. Find your passion -Davies defines passion as “Being your best without any compromise or change.” He firmly believes, “The anatomy of powerful communication is about passion. Passion needs to ooze out of every pore of your body.” Davies knows that when a person is passionate, his message is convincing, persuasive, and genuine. In his speech training for politicians, Davies teaches candidates to get in touch with their passion on a physical level. Once they know what it feels like in their body, they can access and retrieve it more easily. They also work to discover what they are most passionate about, beyond speaking points, and delve into other juicy areas of their lives such as their personal relationships, a sport they love, places they have travelled to, and art. To further spark their passion he asks, “When are you most happy?” Getting in touch with the answer to this question provides a wellspring of core energy, which the candidate can develop and use as fuel to feed the feeling tone behind his or her speeches.
4. Find your uniqueness - Davies is always interested in accessing people’s strengths and unique abilities. His goal is to use those capabilities in the most effective manner. When Davies is working with clients, he pays close attention to the skills and capabilities that set them apart from others. His focus is to discover their unique talent and skill set, and then he and his team craft these findings into the most effective and compelling message and marketing campaign. In his own company Davies uses people’s unique abilities to synergize talents. He believes that each person contributes in his or her own way to the success of a project, and he looks for a multitalented combination rather than insisting that everyone be the same.
5. Read people - In a recent training of leaders, Davies discussed how touching or scratching one’s nose while speaking is an indication of lying (like Pinocchio). Davies is aware of how people reveal themselves in countless non-verbal ways when we closely tune in to their message.
6. Acknowledge/Do not offend - Davies believes it is important to acknowledge what other people say. Acknowledging also lets the listener know that he or she is being heard and that his or her ideas count. Davies is generous in giving clients credit for coming up with ideas and strategies. He also refuses to offend people at a meeting and is extremely concerned that everyone feels safe when with him.

7. Summarize and Integrate - Davies wants his clients to feel that he totally understands their concerns. He does this by summarizing what he hears them say and feeding it back to them. This is an effective way to establish successful give-and-take in a conversation. He will then integrate new information and strategies to help move them forward.
8. Be prepared - Davies believes preparation is the key to being a Star Communicator. That means:
 - Review the client goals;
 - Research all the relevant issues;
 - Know all sides of the story;
 - Review presentations;
 - Prepare staff for what they need to do to support you and the client;
 - Make sure all the details are covered before a meeting with a client.
9. Training and personal growth - Davies takes time out every year to have several offsite retreats with his staff. These sessions help align the company in the “Davies Way” and give everyone a chance to master the urgency, complexity, and change that takes place at work. He also realizes that his team needs “practice time” away from the demands of their clients. Although some of these retreats cost up to \$20,000, Davies is confident that the investment in his people and the Davies brand results in the excellence and integrity of the company.
10. Quality in all - Davies takes a great deal of time mentoring his staff to guarantee that all of the products they create reflect the highest quality. There are hundreds of details to be attended to that require meticulous care, such as writing a quality cover letter for a campaign; working with graphic artists and printers; stuffing envelopes; putting on labels; meeting deadlines; communicating clearly and timely with clients;
11. Finding “the needle in the haystack” - Davies believes it is crucial to: “Find a way for us and our clients to be successful by uncovering and creating a perception and a message that work. We then uncover the best and most visible means to deliver those so-called needles to our clients.”

ENCOURAGING EXPRESSION OF IDEAS, OPINIONS AND STANDPOINT

Creating a safe environment and culture of dialogue, free communication, with the encouragement and stimulation, managers can get information and resources otherwise lost for an organization.

Requiring employees to express their opinions and ideas, and their participation in decision-making improves the flow of ideas, information, through which the potentials of employees are exploited. The prerequisite for successful expression of opinions is the willingness of associates to freely express their ideas.

GIVING FEEDBACK

The skill of giving feedback to associates is crucial for the success of managers in all aspects of their work. The reason for giving feedback is development of potentials of their staff and learning how to achieve goals in a better way. It is an important means by which individuals and organizations learn from their mistakes and improve their work. Feedback must be clear and precise information about a person or their achieved results. Feedback on work and performance is critical for improvement, growth and development. It is believed that even negative feedback is better than no feedback at all. Feedback can be:

- positive - praise, reward;
- negative - criticism, punishment;

Positive feedback is essential for increasing work motivation, satisfaction and loyalty of employees. For this reason, it is emphasized that successful managers use every opportunity to

show employees that they follow and appreciate their effort. Positive feedback is considered a “psychological check.”

Negative feedback is extremely important and requires a lot of experience and skill of a manager in order to help increase motivation and change in behaviour, rather than demotivation. If given properly, it helps associates in their professional development, directs behaviour according to the set standards and organizational goals, and increases motivation for change, better work and performance. The purpose of negative feedback is not criticism, but improvement of job performance and motivation for change in behaviour and better work. It should be noted that negative feedback, if not given properly, leads to frustration and different forms of defensive behaviour.

The function of criticism should be improvement and development rather than punishment, therefore, it should start by emphasizing what is good, giving praise when the behaviour begins to change and improve. Considering the complexity of giving negative feedback, managers usually avoid giving them.

CONCLUSION

When people cooperate there may be some problems or even open conflict, but we also seek, and later obtain reward from social interaction. If we are not able to cooperate with others, or are excluded from the surrounding, the ultimate result is loneliness, unhappiness and depression. This observation suggests the term socialization or the need for relationships with others.

In the business sphere, there are significant benefits from good communication and effective managers showed that they must have a large repertoire of interpersonal skills. The term social capital is used to show the advantages that enable a large network of contacts. Being effective in interacting with others means developing good social reputation. Comparisons are frequently made between social capital and interpersonal skills with the link between the accumulated resources and the flow of resources in an organization. Social capital is seen as the accumulated resources, and interpersonal skills are seen as the flow of resources.

Entrepreneurs who have mastered the skill of building good relationships and cooperation have advantages in many areas such as raising funds, attracting quality staff, maintaining good relations with shareholders, suppliers and customers. Hippocrates stressed that patients can recover given the doctor’s assurance that they will soon be better. Similarly, nowadays organizations (“doctors”) which have friendly relations with their stakeholders (“patients”) and assure them that they will soon be better, are more effective than organizations that still adhere to formal relations.

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IMPACT OF ORGANIZATIONAL SOCIALIZATION TOWARDS EMPLOYEES' SOCIAL ADAPTATION

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ABSTRACT

The paper discusses the importance of organizational socialization as a process of gaining knowledge on the organizational success of employees' social adaptation and encouraging their social competence. Organizational socialization as a scientific discipline as well as practically oriented adjustment activity towards employees' working environment has developed methodology and tactics of socio-cognitive, behavioural and motivational encouragement of employees to the acceptance of organizational culture. It is assumed that in the process of organizational socialization, in addition to professional and organizational adaptation, the focus is on the development of employees' social competencies. Although within the evaluated performance appraisal of social competence is only estimated, and also neglected in the overall assessment of employees' work performance, organizational climate for good social skills is of great importance due to the fact that enhanced social and interpersonal communication and interaction can increase operating synergies and contribute to better business results. Although social skills are an important element of human capital, it is still insufficiently recognized, as a form of intangible resources that participate in the long-term value creation. The deficit in this area can lead to the problems in performance of human relations in the workplace.

Keywords: organizational socialization, social competence, organizational socialization tactics, the tactic of investiture, employees

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THE RESEARCH ON MANAGERS' ATTITUDES TOWARD DEVELOPMENT OF PROFESSIONAL ABILITIES

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ABSTRAKT

Existing formal training of our managers (research / development), is on a solid level. This leads to the conclusion that this feature is for now still predominantly governed by those who have already established themselves as researchers rather than managers. There is a tendency of our companies to purchasing knowledge; there is no wonder that there are a very large number of unfavorable contracts on the transfer of knowledge and technology in our business history. Also relatively lower score of knowledge, technology and production. This area is considered as relatively well known by the research and development managers. Based on these responses it appears that the engineers who lead researches in this area somewhat saturated their own profession and to look for new areas to prove. For the empirical research of this project, 64 managers for research and development were included. From the collected responses it is possible to find out their views on what should be the functions of the business managers.

Key words: research, development, technical knowledge, attitudes, managers.

INTRODUCTION

Research and development is in the world and in our country a renowned and recognized function of market-oriented companies. It is particularly important in the production and unavoidable in industrial enterprises. According to the authors Adamovic and associates (Adamovic et al., 2007) studies have primarily through its results to become an ally human society and man himself in reaching the most human of the desired goals. They further state that the primary role of research (Adamovi, Ž et al., 2007) verify the current research, expand existing research and set new scientific laws, theories, hypotheses. According to (Mihajlovic, D., 1999) the criterion of scientific research puts science to group membership. According to him, all projects can be classified into four groups: research in the natural sciences, research in the field of social sciences research in the field of humanities and interdisciplinary researches.

According to the content of research we classify them into two groups (Mihajlovic, D., 1999):

1. Theoretical studies and
2. Empirical Research.

According to (Mihajlovic, D., 1999) in our daily lives we are often able to draw a conclusion, when we have sufficient evidence. In a similar position is a scientist at the start of the study, when formulating an assumption that is then checked by the facts.

In this paper, the general hypothesis is GH 1: As attitudes and behaviors of the managers of research and development shows less understanding and differentiating dimension of management at orientation they are of great importance to change management in the enterprise, the weaker the

overall efficiency of business operations (functions) is. (The general hypothesis will be confirmed or refuted in the total sample of surveyed managers in companies on the basis of their different dimensions at identifying factors which influence the attitudes of managers who are engaged in the research and development of expertise). The auxiliary hypothesis X1: the greater the influence of the researched manager's attitudes is at development and the creation of expert knowledge the greater is the efficiency of business operations.

IEWS OF MANAGERS AND DEVELOPMENT OF PROFESSIONAL ABILITIES

About the existing formal education of our managers (research / development), it should be noted that it is on a solid level. All respondents had a university degree, of which 36.7% had higher titles (most master's degree - 23.3%). In addition, 80% of the development and research managers were in the engineering profession. This leads to the conclusion that this feature for now, mainly guided by those who have already affirmed as researchers rather than managers, although the respondents deny this when they are asked explicit questions about this.

It is interesting to look at the following evaluation chart about the importance of specific knowledge of the daily operations of the managers. Particularly striking is the very weak position of rights as a professional field. At the same time, it is one of the areas that these managers are least familiar with. Bearing in mind that in their work, these managers face a number of very specific contracts, it can be said that demonstrated poor knowledge and little interest in law is not a good indicator. When we add to this the tendency of companies to purchase knowledge, it is no wonder a large number of very unfavorable contract on the transfer of knowledge and technology appears in our business history.

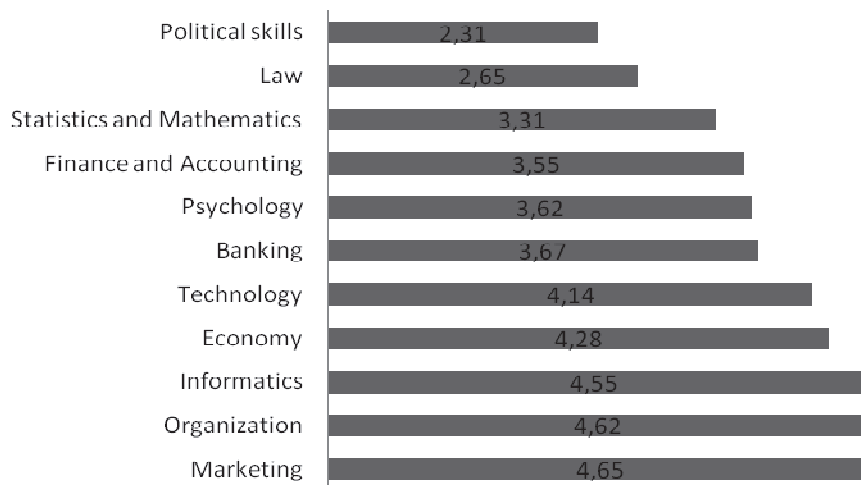


Figure 1: Research and development Managers' attitudes about professional abilities

Also a relatively lower score gain the knowledge of technology and production. This area the research and development manager considered as relatively well known. Based on these responses it appears that the engineers who lead research area somewhat saturated their own profession and to looked for new areas to prove. This is confirmed by a high evaluation of marketing and business economics. This orientation of manager's can be very favorable for the development of the function of research and development as well for the company as a whole. Directing their interest in complementary marketing and cost management, research and development managers, can very usefully direct the work of its people. In this way they affirm as a manager and coordinator of its organizational units from other parts of the company, leaving the immediate operational tasks to subordinates.

At the end, it is not possible not to look back at a very high level of expressed dissatisfaction with the level of computerization of the managers of our companies. This assessment clearly derives from the fact that 2/3 of respondents believe that information technology is one of the areas that is the least familiar in our businesses, thereby giving it a very high importance in their daily work. Although this view is basically correct, continuity and intensity of repetitions of these complaints is threatening to turn into a stereotypical lament and at the same time universal excuse for failure in their own work. But it is not rare that in our businesses appear original and perfect solutions that are not implemented, due to lack of understanding of the environment, and among other things, due to a lack of information. Due to the very present tendency to idealize their informatics solutions, critical users need their pre-implant position that any solution is only as good as the users accept it.

VIEWS OF MANAGERS OF RESEARCH AND DEVELOPMENT ABOUT THEIR WORK

Empirical research for this project included 64 researches and development managers. From the collected responses it is possible to find out their views on what should be the business functions of managers. The first indication of this is the following list of ranked traits of a good manager of researches and development with the average ranks.

Table 1: Characteristics of business functions

Characteristic	Average mark
Knowledge about research and development	2,58
Knowledge about direction of research and development activities	2,79
Knowledge about providing support of research and development in the enterprise	3,70
Good researcher	4,33
Knowledge about obtaining a license	4,70
Knowledge about securing the cooperation with external institutions and organizations	4,91
Good knowledge about literature in the field of research	5,44

From the above sequenced characteristic, it is obvious that the current managers of research and development find that it is more important for the managers to be a good manager but a good researcher. This orientation probably taught them life experience that a good researcher does not have to be a good manager in a research sector. However, what may be concerned about the very low valuation of knowledge and literature in their field. It seems that this type of self-employment requires too much effort and time.

The need of a more convenient form of innovation knowledge of these managers is evidenced by the next ranking.

Table 2: The need of knowledge inovations

Possibility of knowledge innovation	Average mark
Specialist courses	2,45
Seminars at home and abroad	3,07
University	3,51
Scientific conferences at home and abroad	3,78
Visits to local and foreign companies	4,17
Over domestic and foreign literature	4,32

It is obvious that managers prefer different forms of instant knowledge transfer, offered by specialized courses and seminars. This can be understood considering that in addition to the professional responsibilities of these directors, they must acquire and use every day a number of managerial skills and knowledge, which in view of previous education, are often not qualified. All forms of promotion of knowledge that require active participation of managers are ranked lower,

and their attractiveness decreases in proportion to the required activities. Thus, again professional journals are in last place as a source of new knowledge.

The following chart contains the evaluation criteria of success of research and development managers. From these responses, as well from the previous ones, we can see strong pragmatism.

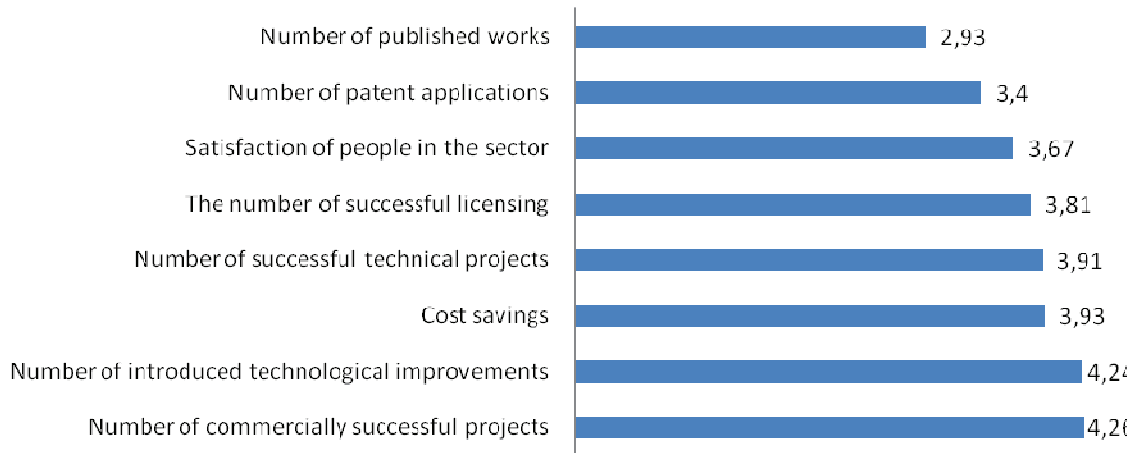


Figure2. Rating criteria of success of manager`s of research and development

Pragmatism is clearly reflected in the fact that these managers give priority to the number of commercially successful projects and the number of introduced technical improvements over all other criteria of success. These assessments show that they have the correct target function. Therefore, only the technically and commercially successful projects are a big hit, while only technically successful projects (3.91) represent the fulfillment of a limited objective. It is interesting to note a very high grade of expressed efficiency (not over the relationship cost/results only) through savings in the cost of research and development. Taking into account the crisis situation in which our economy is, it is understandable. However, the long term of this orientation is dangerous for the company as it restricts its expansion and development. The numbers of publications in scientific journals at the average rate are at the last place. This indicates that the contribution to the overall scientific potential is not a priority, but secondary goal of the company, and indirectly to the development on the basis of their own scientific discoveries in our country is not more widespread.

CONCLUSION

From the attitudes of the research and development managers, pragmatism prevails very strong in terms of their role and their sector of the organization. These directors properly evaluate that their success lies in the introduction of new commercially successful products and services in the production program of the company. This suggests that these managers are aware that the work of the research sector is not art, but rather an activity that is most closely associated with the growth, development and business performance of the enterprise. As the most important characteristics of manager`s of the research sector they emphasize the ability to direct their organizational unit and coordinate its work with other parts of the company.

These managers have high education and a positive attitude toward rejuvenation, although these managers are mostly in the category of over 45 years. Perhaps because of these years there is a certain conservatism and resistance to the transfer of new managers in this area from other companies and institutions.

Surprising answers have manager`s of research and development sectors in terms of evaluation of individual expertise in their own daily work. Very highly valued marketing, organization and

informatics, while surprisingly poorly valued the importance of law, and to some extent the technology itself. Since these managers especially complain that our managers are the least familiar with Informatics and Statistics, we can see the importance of informatics to the overall success of the company.

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THE RESEARCH ON MANAGERS' ATTITUDES TOWARD CHARACTERISTICS AND EFFICIENCY OF A PROFIT CENTRE

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ABSTRACT

Modern organizational solutions that have significantly affected the current situation and trends in the development of organizational structure are based on the increased autonomy of the parts of the company. Complex functional and pyramidal structures have been modified in the direction of creating the profit centres. Many eminent authors consider the significance of creating the profit centres to be the most important event of the past decade, arguing that the top management is increasingly separated from the operational activities of the corporation. Production and sale of products/services are not performed by the corporations but by its subordinated profit centres. However, the profit centres do not have power to start a business; the power is more and more in the hands of the profit centre managers.

Key words: profit centres, profit centre managers, managers' attitudes

INTRODUCTION

According to Weihrich & Koontz (1994), profit is the excess of cash proceeds from the sale over the cash outflows. Profit centre is an organizational unit that has a control over its revenues and expenditures. The goal of the profit centre is a profit as the difference between revenues and expenditures. Profit centre is defined as a complete, separate and self-contained organizational unit in the company, which seeks to achieve a certain rate of profit. According to Sajfert, Đorđević & Bešić (2006), a profit centre manager is responsible for the profit of the unit, as well as for allocating the profit centre budget. Each profit centre is largely autonomous in deciding on the allocation of the budget, but assuming that it achieves a level of profit that is determined by the top management. Profit centres are formed in diversified companies with a large number of different products, and can be usually found in large, decentralized companies where each division is formed as a profit centre. (Sikavica & Novak, 1999).

The growth of the market, production and human potentials of the business entities has intensified the problem of structures decentralization and influenced the degree of independence and responsibility of the lower organizational levels. Models of organizational structures, which operatively support the top management commitment to decentralization, were primarily built on the principles of cost centres, and then on the principles of the profit centres. This sequence of modifications is a natural way, and the consequence of decentralization process.

Profit centres, as significantly completed units of an enterprise, are established to reduce the complexity of the control efficiency based on autonomous balancing of costs and profits, i.e. profits and increased accountability for achieving goals of the other parts of the enterprise which are under the "local" impact. In accordance with this specific purpose, they are given autonomy in terms of internal organization and planning (production, sales, costs, profits, the need for human resources and investments). This provides a degree of independence that creates two levels of profit authority which are strongly associated with strategic competencies of top management and with some functions centralized performing on the one hand, and the place where the profit is realized on the other hand. From the standpoint of conception, it is irrelevant how the profit has been shared between those two levels, what matters are motives and essential interdependence.

Decisions on strategic product portfolio significantly affect the position of profit centres in the company. Depending on these decisions, the decisions about investment or disinvestment policy are made, which have an affirmative or derogatory effect on the development of individual centres. In addition, the centralized parts of R&D, marketing, finance functions can with their work, more or less, support the work of some profit centres. Therefore, as a significant achievement of the profit centres, besides their success in the struggle for profit, is considered the degree of their integration into the strategic goals of the whole company as well. Indicators of their success are the victory over the direct market competition and strategic competition within the company.

SITUATIONAL AND STRUCTURAL POSTULATES FOR CREATING A PROFIT CENTRE

Moving to the level of decentralization, on which are formed the profit responsibilities of individual parts of the structure, may be a matter of commitment of top management and therefore has the character of subjective decisions, but there are certain objective situational and structural preconditions in which decisions are made and supported by arguments. Another important decision in this regard is related to the separation of those parts of the structure which meet the requirements to be organized as profit centres and those who will be subordinated only to the centre - the top of the management structure.

The basic situational prerequisite for creating a profit centre has already been marked. Only if the individual parts have sufficient personnel, production and organizational strength to resist market competition, on the basis of internal resources, the concept makes sense. On the other hand, if they are given a certain autonomy, which can threaten their survival because of the power competition, or if the management centre is continuously engaged in their protection (financial, marketing, development support) then it is the irrational structure modification.

RESEARCH RESULTS ON PROFIT CENTRE MANAGERS' ATTITUDES

Valuable information on the profile of profit centres and their need for managers in this area can be obtained from the profit centre managers' attitudes. Those attitudes can be divided into several groups:

1. Attitudes about characteristics of a profit centre
2. Attitudes about characteristics of the profit centre managers
3. Attitudes about the success criteria of the profit centre managers
4. Attitudes about the prerequisites for the successful operation of a profit centre
5. Attitudes about the selection of the profit centre managers

Attitudes about the characteristics which a profit centre should have can be seen in Figure 1.

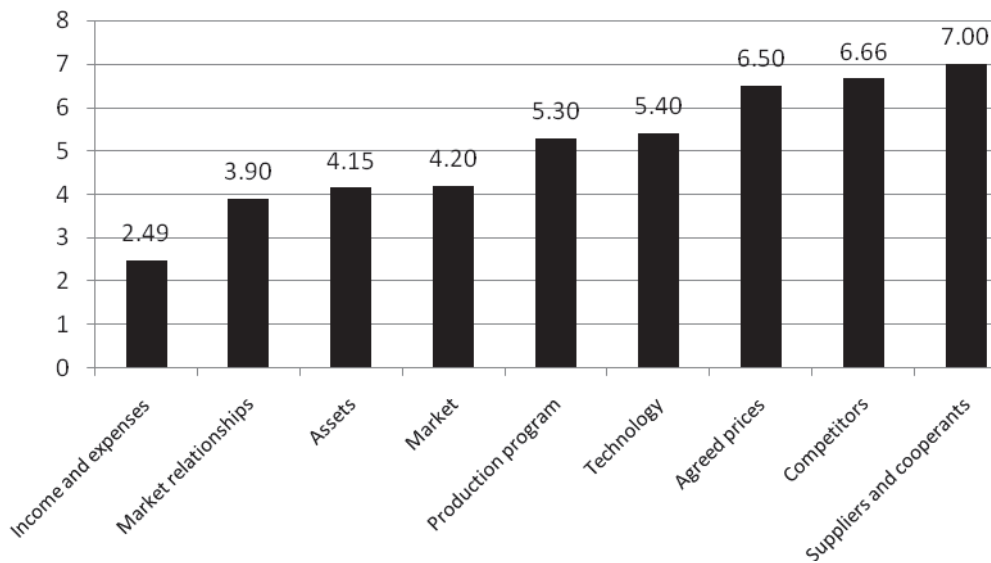


Figure 1: Profit centre managers' attitudes toward characteristics of a profit centre

The characteristics are ranked from 1 (the most important) to 9 (the least important). As can be seen, the top-ranked i.e. the most important characteristics of a profit centre, are those related to its differentiation from other parts of the company. So, it could be concluded that the most important characteristic that some organizational unit should have in order to be a profit centre is its differentiation from other parts of the company. These characteristics include the fact that the profit centre has its own income and expenses, and own assets, as well as that its relations with other profit centres are established on a market basis. After these, following are the characteristics of market identity. This group of characteristics includes: own market and own production program. Finally, the least important characteristics are: own technology, competitors as well as customers and suppliers. According to the results, the profit centre managers find that for successful organization of the profit centres, it is more important their internal differentiation from other parts of the company than their external or market determination. In other words, the internal identity is more important than external. A probable cause of this lies in the real difficulties profit centre managers are facing with in this area.

In terms of characteristics that a profit centre manager should have, the interviewed managers identified three groups of them. The characteristics were extracted by factor analysis and can be seen in Table 1.

Table 1: Characteristics of a profit centre manager

Entrepreneurial characteristics	<ul style="list-style-type: none"> • can create a business vision • can organise and control • can ensure profitable operations • can manage money wisely
Political characteristics	<ul style="list-style-type: none"> • can ensure support within the company • can ensure support outside the company
Managerial characteristics	<ul style="list-style-type: none"> • knows business technology • knows the product market • can direct the activities of employees

Figure 2 presents the characteristics of a profit centre manager which are ranked according to the level of significance.

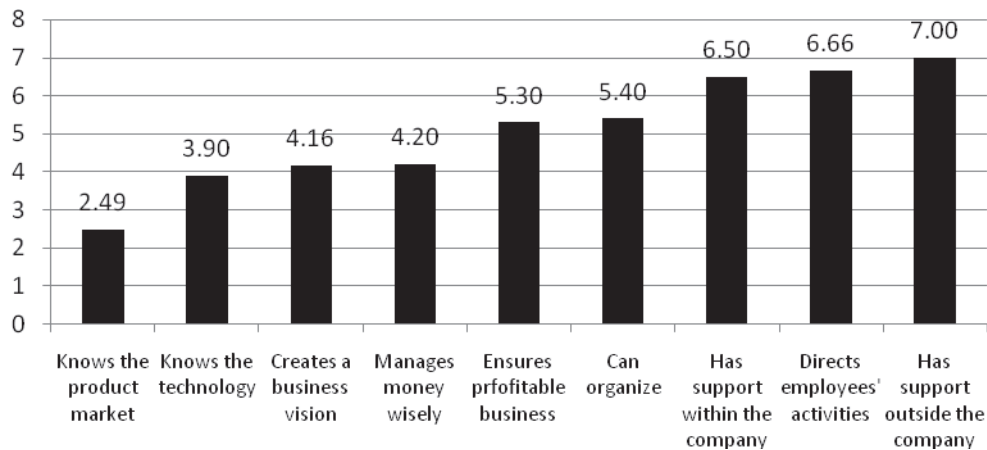


Figure 2: Characteristics of a profit centre manager - ranking according to the level of significance

The characteristics are ranked from 1 (the most important) to 9 (the least important). As can be seen, for a profit centre manager it is the important to well know the market and the technology of his centre, as well as to have the ability to create a business vision. This last characteristic is quite surprising but encouraging. It seems that our managers have an attitude that entrepreneurship in our enterprises need to be "put down" to a lower level than the level of the enterprise.

A profit centre manager success criteria can, by factor analysis, be grouped into three groups according to the similarities:

Table 2: A profit centre manager success criteria

Market satisfaction	<ul style="list-style-type: none"> • degree of capacity utilization • market share • good customer relations • good relations with suppliers and cooperants
Community satisfaction	<ul style="list-style-type: none"> • good relations with government authorities • satisfaction of the people in the profit centre
Enterprise satisfaction	<ul style="list-style-type: none"> • achieved profitability • effectively planning and controlling the costs

Individually, the most important criteria are those that related to satisfying the interests of the company: effectively planning and controlling the costs and achieved profitability. The following are the criteria related to the market aspect: market share and good customer relations. A profit centre manager success criteria are presented in Figure 3.

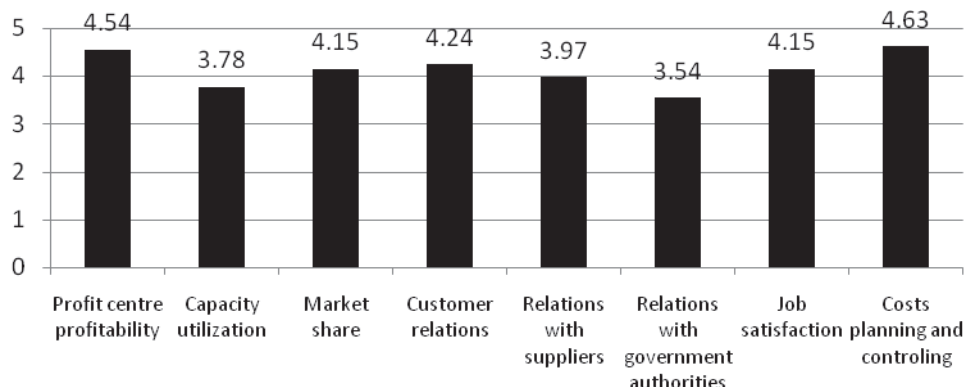


Figure 3: A profit centre manager success criteria – evaluating the importance

The criteria are rated on a scale from 1 (the least important) to 5 (the most important).

Managers' attitudes towards prerequisites for successful work of the profit centre tell us a lot about what they find to be the key factors of success in our environment, (Figure 4).

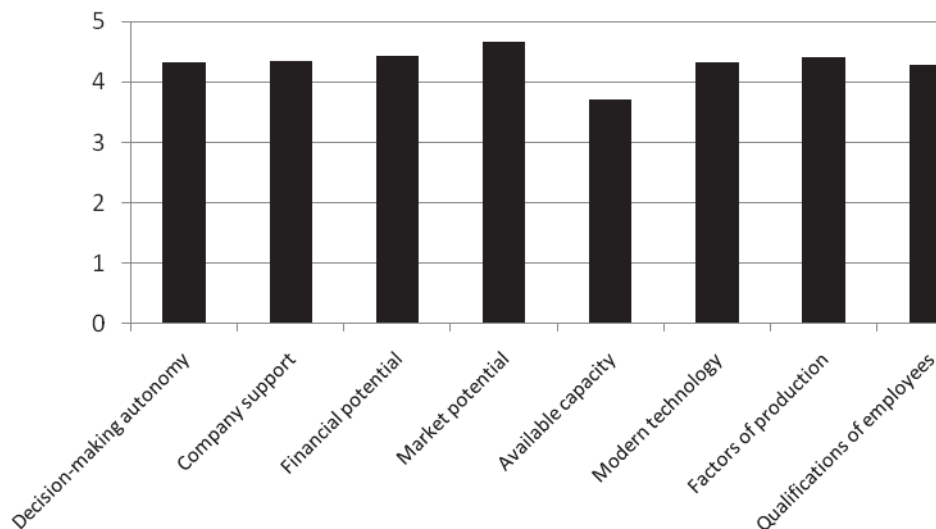


Figure 4: Prerequisites for successful work of the profit centre - evaluating the importance

The prerequisites for successful work of the profit centre are rated on a scale from 1 (the least important) to 5 (the most important). As can be seen, the most important prerequisites for the successful work of a profit centre are market, financial and material resources that are at its disposal, followed by regulated internal relations such as: support within the company and autonomy. According to the managers, the least important prerequisites are production and human resources of a profit centre.

Regarding the selection of the profit centre managers, the respondents think that they should be selected primarily from their own profit centres or other profit centres within the same company. As a criterion for selection should be used, first of all, achieved business results, and then the ability to work with people and represent a profit centre. The most of respondents (53% of them) think that the manager of a profit centre should be an experienced person with 6-10 years of work experience. Two-thirds of the respondents believe that the profit centre manager should be a person with a high school education while one-third of them think that it should be a person with specialization.

CONCLUSION

Depending on whether the profit centres are organized on the basis of functional specialization or on the basis of business segments, there are some differences in the nature of their managers' tasks and responsibilities. Managers of functionally specialized profit centres are more closely associated with the objectives of improving the work and services provided by their units and they build their results on that basis. They mainly possess technical and managerial knowledge. On the other hand, the content of the work and tasks of managers of business segments, separated into profit centres are more complex and require a comprehensive vision for the survival and development of that segment of business activities. In short, their tasks are compatible with the tasks of top management except those which are exclusively within the competence of the top management.

Considering the above presented limits of the authority of a profit centre manager, it can be specifically listed his key tasks, duties and responsibilities. They are:

1. Clear operationalization of the objectives of a profit centre with a particularly pronounced vision of its compatibility with the goals of the system and encouraging such thinking among subordinates.
2. Designing the elements of autonomous development through development plans and programs.
3. Encouraging and maintaining communication between the central functions of companies and certain departments within their sector.
4. Prioritization of investments in accordance with the strategic orientations, and in the direction of the effectuation of short-term goals.
5. Maximum impact on the use of available resources through measures of organizational culture.
6. Achieving and maintaining equal position compared with other parts of the structure, especially with regard to the deployment of common costs and the amount of internal transfer pricing.
7. The development of an autonomous system for monitoring and control of profits in accordance with the standards of the centre.
8. Material motivation of subordinates based on remuneration principles which are proportional to the success of a profit centre and individual contribution to such outcome.
9. Fostering the image of the company, in the field of public relations which is realized personally and through certain services.

Contemporary models of organising the complex enterprises point to the need for creating the profit centres. It involves the development and improvement of an adequate model of the organizational structure, as preconditions for the successful organization and business. Particularly important role in organizing and running business operations have managers. Their knowledge, skills and orientation to finding the adequate responses to the growing problems in business, are that positive energy which integrates and improves overall business growth and business development. Therefore, to the issue of management and managers' improvement has been given the special significance.

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PERSONNEL ISSUES WELDING THE PROJECT "SOUTH STREAM"

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ABSTRACT

Welding is always a promising profession, but now many companies deficient in quality welders. Existing welding staff is professional incomplete (lack of welding procedures, lack of new processes - technological modernized, lack of automated processes, automated robotics system and by welders). Training of welding personnel, education, unification of jobs, creating new special technology and other means of improving welding and welding personnel, resolve existing vacuum due to shortage of staff, and in the case of the "South Stream" to provide much-needed jobs to perform welding operations to our employees.

Key word: welding personnel, welder, troubleshooting.

INTRODUCTION

Occupation welder in the seventies, eighties and nineties partly brought a decent foreign exchange inflow in our former state. Oil, gas and pipelines of drinking and industrial water in northern Africa, Asia and the Arabian Peninsula at that time built our company. The transition from state whose company received international tenders for welding jobs coming to the fact that in the domestic market are losing tenders in the only healthy part of the economy - energy sector. Insufficient popularization occupations welder is one of the key problems. Outdated training programs and schools that do not follow the needs of transitional events of prospective occupations welders became a profession for which students do not choose.

Welding is always a promising profession, but now, in many enterprises deficient in quality welders. Existing welding staff is professional incomplete as the biggest problem for business a decade in Serbia "South Stream".

Main contractor building the section of gas pipeline "South Stream" through Serbia is a common Russian-Serbian company "South Stream Serbia", in which the share of the Serbian owner "Srbijagasa" 49, a Russian "Gazprom" 51 percent. This company was founded as early 2009. Switzerland, the off-shore destination, and the public raises the question of whether the state will Serbia be able to control its share in it.

If little directly look at the situation after the first pipe welding (November 24, 2013) for the question is what will be part of the performance after laying the pipeline through Serbia Serbian companies, because there are large sums of money that may remain in the country.

FACTS

In many companies there is a lack of staff that complements unplanned and from situation to situation. The question is: who is going to weld and put 400,000 tons of pipe in our country, a distance of about 421 kilometers?

By the beginning of this great work was not even a little bit of time for any calculations and preparation. Hence the question - are there any Serbian masters and those companies willing and capable of such a large and technologically challenging job? Legal and other regulations this time Srbijagas is not an obstacle, because the contract with the Russians designed to employ as many local industries. But is it really real?

The issue of skilled labor in Serbia by the German ambassador who said that German companies can not find workers for those jobs that were initiated in Serbia .Dusan Bajataović , Managing Director "Srbijagasa ," the question whether Serbia has enough skilled workers , and whether the company is to build a pipeline "short" with the time , claimed that there is enough time .

"When it comes to workers, it is difficult to say how many will be able to hire domestic operations . Order as far as possible employ local industry, considering that the company together and so engage as many of our employees," he says in an interview in Bajatović "politics " (Politika daily newspaper., 11 November Interview with Bajatovic., 2013.)

"Privacy" then states that Bajatović aware that everything had to be craftsmen and skilled workers walked out of Serbia , and is the first question on how to return these people and tell them, " We need you for two years while we finish South Stream , and then go back where you came from. " (Politika daily newspaper. 11 November Interview with Bajatovic., 2013.)

The biggest problem is technological obsolescence that are not aware, he said, adding that this was not the case when it comes to engineers, and highly-educated people who work on the design. The fact that Serbia has no quality master is the result of many years of destruction of the domestic industry. Now the moment has come to face the truth and to engage anyone who knows how to do these jobs, says Bajatović, adding that currently all engaged in so-called logistics and security of bank guarantees.

The biggest problem will be with the welders as the welding of the pipes can be hired by someone who works in the auto tinsmith actions, but an employee who knows how to use and apply the most modern welding technology, since in the meantime, all automated, says the first man "Srbijagasa". (Politika daily newspaper, 11 November Interview with Bajatovic., 2013.)

Serbia says he can count on his workers, diggers and those who will participate in the country. Truck has enough, but not the excavators and bulldozers, and is seriously considering whether to buy equipment or borrow , as it is very expensive, and you probably will not use the same or similar jobs .

The problem is also with the pipe layer, given the size of the pipe and the tunnel that needs to dig beneath the Danube Bajatović says, adding that " Jaroslav Cherni " - Institute for Water Management, one of the trusted companies that will be involved in the whole business, because they have the top experts for this task, but the damage is such that no more. (Politika daily newspaper, 11 November Interview with Bajatovic., 2013.) An additional problem for him, not only in need of skilled workers and firms artists , but to insist that banks for loans and guarantees may apply only licensed home. (Politika daily newspaper, 11 November Interview with Bajatovic., 2013.)

On the construction of sections of the transnational gas pipeline through Serbia , long 421 kilometer , according to current estimates, in the first phase of work will be directly employed five

thousand, and indirectly all 100,000 people in our construction companies , equipment manufacturers and service companies . Judging by all that there is a real concern that we lack a number of workers , particularly specialized professions and trades .

When asked whether this means that we still need to " import " workers from Russia , Bajatović says they offer help and will surely be the operative part of " Gazprom " , as they have extensive experience as built " Nord Stream " . (National RTS log in 20 hours 24 November. 2013.) It is a "tough" conditions. Everything that welds must be immediately and placed in the ground. Such technology.

Call for tender for all transactions and select the best supplier , concludes Bajatović . (Politika daily newspaper., 11 November Interview with Bajatovic., 2013

CAUSES OF THE PROBLEMS OF WELDING PERSONNEL

Deadlock and termination of industrial production and metal industry caused the break in the continuity of education and training of personnel who would be in charge of operations in production and maintenance. Tasks such as the maintenance of thermal and hydro power plants , maintenance of many public companies that have remained intact transition require considerable staff of engineers and craftsmen we have years back slowly lost .

For years, large companies such as " Smederevo Steel Works " , " Ivo Lola Ribar" , " Gosa" , " MIN " Niš and the other had a laboratory for training personnel from welding . Welding is a process that is constantly advancing , adopting new materials and is therefore necessary monitoring and improvement in terms of technological advancement and the very perpetrators.

Serbia is currently more than one and half million people unemployed and occupation of welders is still sought by employers. A welder needed throughout the energy industry public companies do what's left of industry. Initiate industrial projects such as "South Stream " and those who are in a certain field , without welders can not imagine what drives us to make interest welders should be extremely paid and that many opt for it but the reality is the opposite. Low labor cost is a result of the closure of many industrial complexes , schools that is degrading occupation welder , fumes and dangerous work of welders on the structures (bridges , buildings) no length of service , lack of permanent jobs, and mentality of local people - not accepting retraining and finally , the state of neglect has led to interest welder be avoided.

RESPONSIBILITY COMPETENT

Can the government to do something and what you take? I keep announcing big projects like the project "South Stream " where the interest of welders needed. Ministry of Railways seven years back talking to the launch industry vagonogradnje a two thousand thirteen and fourteen of these two thousand years, most companies have almost extinguished (" Želvoz " Smederevo " Wagon Factory " Kraljevo " Šinvoz " and others) . Department of Energy says that welders need more than the existing major energy and infrastructure projects in the country , which has a lot of gas pipeline " South Stream " , the construction of new blocks in TPP "Kolubara" and "Nikola Tesla " , to small hydropower as and for the rehabilitation and maintenance of existing capacity electric power industry. The Ministry of the Labour has major problems due to an overloaded public sector that draws too much power and time on the other hand, pension funds are empty and the state must deal with these issues, instead of dealing with the core issues that are sometimes (thirty years ago) were politely addressed systematically (there are no multi-year plans for economic development of Serbia). Ministry of Labour and Employment to ten years "removed "story that has no money and many budgets are called "development " which comes from the Ministry of Economy . Get out of time, the transition goes spontaneously and quickly, and education does not keep up the speed all

the changes and many leave the profession and generation of students lose their futile years, at the end i can not find a job because no one else wants.

Ministry of Education various attempts at reform only confuses new students and at the same time no reform was not implemented until the end and that a new not started , the only effect of the reforms is that many teachers have lost their jobs.

Practical classes, years back , losing pace with contemporary developments , lack of practical teaching.

The teachers who languished for years unwilling to self improve has led to the high schools receive welders and other craftsmen profiles that are not attractive to new employers.

One of the biggest failures of the state related to the project "South Stream" is that the problem of lack of welders are media appeared in the second half of 2013, before the start of construction of the pipeline through Serbia.

The contract for the "South Stream" Serbia has signed in December 2008. Since the beginning of 2009. till the end of 2013. Has for five years and for the period that could have come out two generation trained specialist welding job welding pipe - a combination of two jobs - technician in computer engineering, he used to be, And that's what so that children with one hand, technicians, and on the other hand knows the practical welding process. It's too late to overcome this shortcoming some retraining is needed because a large number of welders and pipeline construction has begun ... "South Stream" project except Serbia is going through at least four states of the European Union.

That was enough to understand, Serbia would have their welders operators, technicians and engineers in these countries because of the work of our employees is cheaper because of the crisis, unemployment and the general situation in the country and to the prices were more competitive.

ACTIVITIES OF STATE AND NATIONAL EMPLOYMENT

National Employment Service organizes and conducts training for welders. These training programs are old , made by people with no experience and at the same time does not conduct media activities and number of participants is insufficient (eg more training Roma where there were not enough participants for the start of the course) . National Employment Service's underutilized service centers, such as "The Welding Institute " , " Institute Gosa " , working on international programs and using the most advanced methods . National Employment Service organized every year of free training for welders in the whole of Serbia and annually in these programs are only several hundred unemployed. Registered with the National Employment Service with skilled graduates, currently over a thousand electro-welder and over two hundred gas burner, with vk education through which universal welder, but as they say in the NES, although it has a welder at the office, this occupation is considered deficient because welders who have not yet found a job do not meet all the conditions required by employers . Demand exceeds supply for welders with certificates and modern specializations in the field of welding such as are required for the job, "South Stream "(combination of two jobs - technician in computer engineering , which used to be a welder and so are the students on the one hand - Technicians and on the other side knows this practical welding) .

On registered National Employment job waiting for 1277 electro-welder, among them 58 women, and 274 gas welder-cutter, and 12 were women. "National Employment Service is 2013. Organized training for welders in the framework of basic education for adults. This is the project" second chance "for 50 unemployed. Plans to design the catalog for training in 2014., In accordance with the needs of the local market and employers" say the National Employment Service. Training of

welders in the NES is not cheap, courses usually last three to six months and a minimum one-year practice, to train good welder.

To one welder fully trained, you need to eventually pass the test certificate as per international standards and then not have to think about employment. Exactly that in the construction of "South Stream" their first chance to see the work of welding technicians final year of schooling. Some technical school students are hoping it will be a job for the direction that end, because, as they say, in the direction of no workers at the office.

Due to the time that the request be put through school and adequately train a welder and the cost of the training, it is important that we have the business plan and access the project "South Stream" in the field of welding should follow the state (to the level of government), to be the time is running and that the serious home that has the resources to put through school and train welders, to monitoring the performance of welding jobs also take a serious company and thereby gain enough experience to show up in the tender in other countries (one of these houses is certainly Institute welding "Gosa").

Welding Institute "Gosa" at the end of two thousand thirteen a presentation together with Russian colleagues for ortho welding pipe where the media invited all interested parties to attend the presentation.

SIGNIFICANCE OF SPECIALIZED CENTERS TRAINING

Training center for welders at the "Gosa" which deals with the training of welders thirty over the years, the annual train over one hundred fifty welders and many of them attests to the various welding processes. Rates for welders usually takes three to six months. One of the major projects he was working on "Institute Gosa" is a project funded by the European Union under the name W - Tech, professional training for the metal and engineering industry. Thanks to this project, worth 755,000 euro, "the Institute Gosa" has introduced three new welding technology: plastic welding, ultrasonic welding, flux cored wire and equipped center for welding new equipment

Welding Institute", Belgrade also hosts the training of welders, engineers, inspectors and technicians.

The Institute annually train from twelve hundred to fifteen hundred welders, prices are affordable for the length and quality of the course. The Institute has its own repair center with its welders and main client is the Power Industry of Serbia

Increasingly retraining for welders and they are looking for companies, but there are students who are looking for their own development. The "Institute Gosa" say they have trained thousands of welders and about 100 engineers and technologists welding.

Head of Training Welding "Institute Gosa" Milan Prokolab says many companies will not be able to register to do business in the "South Stream", if you do not have the engineering and welding technology, because it is such a trend in the world and Europe. U "Institute Gosa "were ways of welding of pipelines that are expected in South Stream..

Acting Director of the "Institute Gosa" Mirko Ličina says it will organize training for robotic welding or operator and developer of robotic welding which can also be subject matter of the "South Stream". Experts say that our qualified welders and the Institute cooperates with partners from around the world. Otherwise, training in our country there are more students from other countries. thing that is necessary is that the state itself for major projects (such as the "South Stream") which are the state approached seriously, thoroughly and planning. Plan and coordination of many ministries in the government is required to run the economy (machine building, construction, industry, etc.) and one of possible spark ignition engines Serbian industry was the project "South Stream".

There is no doubt that the "South Stream" will contribute to the economy and industry in Serbia, but what is apparent is that this project could make use of multiple and nearly dead industries employ many times more. Analyzing the problem of welders in the same supplements and the problem of construction machinery, trucks, developing complex mechanical structures, pressure vessels and many more which builds on pipeline "South Stream". "14 October ", " Fap "Priboj," Ivo Lola Ribar ", " MIN ", " Thermo electric ", " IMR Rakovica ", " IMT "and many other firms that do not work or only what they do, they could be run by the project "South Stream" but it was more understanding to timely and thorough planning such an important project.

CONCLUSION

Welding is always a promising profession, but now, in many enterprises deficient in quality welders. Existing welding personnel is incomplete (lack of welding procedures, lack of new procedures modernized technology, lack of automated processes, automated robotics system and by welders).

Program for troubleshooting welding personnel have the task of technological, organizational and improve the quality of welding jobs and improve the quality welders, and thus make the required interest welders and safer for some of the new generations.

Training of welding personnel, education, unification of jobs, creating new special technology and other means of improving welding and welding personnel resolve existing vacuum in welding and in the case of the "South Stream" to provide much needed personnel to perform jobs our workers. In solving problems welder frame for the project "South Stream", had the state to include more than five years because she signed a contract with the Russians for the "South Stream" state project and how the government itself for years in the back says the project "South Stream" that it is for Serbia, "Great job" deal of the decade.

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IMPACT OF LEADERSHIP COMPETENCIES DEVELOPMENT ON PERFORMANCE RESULTS OF MARKETING MANAGERS

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ABSTRACT

This paper presents some leader competencies and also is pointing out to desirability of their adoption and implementation in practice by marketing managers; as well the final possible effect of that implementation is indicated on the marketing process results, in the context of efforts to raise the quality of the business to the highest possible level. The main objective of this study was to explore how an intermediate level managers can become managers with leadership competencies for governing marketing process in the company, and what is the role of managers with leadership competencies in transforming companies from good to excellent in its activities. The above is elaborated through the prologue of the article that explains the importance and objectives of the work, then the theoretical part which specifies the basic definitions of leadership and marketing, some recommended leadership competencies, then through research questions: what is the way that one manager can develop his own leadership competencies, whether and what kind of role marketing has within management? What are the basic elements of leadership and marketing concept that are important for their common role within an organization? The paper is based on empirical research, using the known techniques of survey and interview.

Key words: competency, leadership, marketing management.

INTRODUCTION

The main reason for this study was conducted was to obtain the relevant parameters and to determine the extent to which the development of leadership competencies in marketing managers can affect the improvement of the marketing activities of the company. Some research suggests that there is a strong link between owning leadership competencies in marketing managers and their performance. Thus, for example (according to Kotler, 1994) marketing environment includes uncontrollable factors and forces affecting the marketing of a company such as suppliers, market intermediaries, customers, competitors, the public, and the forces that affect marketing (demographic, economic, political, technological and cultural), because of which the adoption of leadership competencies is necessary for managers in order to achieve better results. The number of indicators suggests that marketing managers in companies carry out their marketing activities mainly through the traditional managerial approach and rarely build-up themselves into leaders of marketing management (Adžić, 2004). Therefore, it is important to get to the indicators that provide answers to the question of whether a change of style from managerial to leadership, as well as preferring some leadership competencies in marketing managers, increase the quality of marketing activities.

It is important to note that despite the great importance and expansion of the leadership studies as a science in the last three decades in the region countries, conducted empirical research about the leadership are very rare which is why we are dealing with leadership as a process in which managers-leaders achieve a specific interaction with employees and thus transmit all the necessary

knowledge to them, motivating them to achieve better business results (Buble, 2010). All those authors who conducted research about business organizations in '30s of the 20th century indicated the importance of certain leadership competencies in companies, and their discoveries are still much actualized, because we are witnessing that in more dynamic environment of modern business, with purpose to have good business result, everything is increasingly turning towards the values of developing good interpersonal relationships, trust, teamwork, work ethic, eliminating stress and dissatisfaction among employees, etc. (Sajfert, 2006). In such circumstances, the modern business managers with leadership competencies are those who become cohesive mechanism that maintain the stability of the company while increasing the quality and results of operations to the next level, and then reaching a long-term business operations excellence.

THEORETICAL BASE

To define marketing is not simple because different authors define it on the different ways. Thus, in the literature can be found that the marketing is business activity, the phenomenon of trading, also that it's a group of interrelated business activities with purpose to achieve the same goal; the concept of thinking which has integrative and coordinative function of creating a business policy of a company; that it is the process of ownership transfer for certain product from manufacturer to end-user, etc. (Misaljević, 1980). Actually, marketing really is all this, and more than that - on addition to the above it includes management of various research and analysis, development and supply of products (services), creating and managing the company marketing activities or more companies, managing and developing relationships with customers; planning and organization of human resources, sales skills and knowledge, finance and financial planning, communication with the market and adequate assessment of market reaction on specific marketing activity; and at the end of this line, which is theoretically and practically much longer, this paper will emphasize that marketing involves the utilization of leadership skills and knowledge (Fill, 2005).

As for leadership, at start of this paper it should be stressed that it is a relatively new phenomenon, but as a concept is a very old thing, but even so it had occupied very quickly the top of the managerial sciences and currently the most of scientific papers worldwide are from this area of management, represented in both profit and non-profit sectors. Leadership is a concept that appeared first in the non-economic social theories according to which the leader is the "person which with his own words and / or with personal example, markedly influence the thinking, behavior and emotions are a significant number of people" (Misaljević, 1990). It should not be concluded immediately from this definition that leadership is divided on the political and business one, but it can be divided through context whether leaders are addressing someone directly, face to face, or it is about indirect leaders who exercise their influence indirectly through its work. As an example of this second option, New York Times magazine choose Albert Einstein for the leader of the 20 century. Regardless of what kind of leadership is about, political or business one, Gardner has defined six characteristics of leadership: story (the leader must have a central story or post for large heterogeneous groups), audience (auditor that receives a message), organization (institution necessary for transmitting the leadership message to the audience), personification (message creator must not be contradictive to himself), reference (can be directly to the audience – the way political leaders practice to do it, or indirectly via a particular product, how business leaders do it), skill (high level of expert knowledge in their work or credibility in their life), (Gardner, 1996). Considering that business leadership is in the focus of scientific interest during recent years, in this paper we will deal with the business leadership in the context of the application of leadership competencies in marketing management. Business leadership can be defined as leading an organization (entire company or one of its organizational part) in today's turbulent environment, because the leader is the one that can cope with the changes arising from the global dynamics of the business environment. Therefore, change and leadership are synonyms, and in this context, the key to good leadership is about dealing with people as change bearers, and work of marketing manager in its essence is also working with people. If leader's task would be presented on simple way, then we would say that it is reflected in two key things, looking at the situation and taking an action. It is important to note that in the business world there is a clear boundary between leaders and managers. In the simple terms, as stated in most of world literature from this area, managers do right things and the leaders are doing things right. A good business organization needs a good manager and a good leader, and they are not competitive with each

other; on the contrary, they are complementary, but each with their position and role in the company: manager is an administrator and leader is an innovator, manager maintains a leader develops, the manager focuses on systems and structure of a leader on the people, manager develop control and leader develop trust, manager works with safe calculations and leader with probability, manager deal with present time and leader with future.

Thus, managers and leaders are very different (Zaleznik, 2004). The leader is the person who takes responsibility (planning and implementing the vision they believe in) and coordinate the activities of people in their efforts to achieve the goal (Bass, 1981). As an important conclusion we can state the fact of our and other similar studies, that today's businesses organizations, unfortunately, are still more managed and less guided. At the same time, in today's turbulent business environment changes, the more we recognize that company needs to be led, respectively leadership must have more significant role from the standard managerial control because of simple reason that the management is a static form of determining the direction of company's movement or for the marketing within the organization, in the context of our paper; on the other hand leadership is a dynamic form of movement towards a goal that can be defined as a dynamic change in order to achieve greater market competitiveness (Collins, 2007).

The basic hypothesis of this paper is the fact that almost all organizations can significantly improve their performance, and may even become leaders (excellent), if they apply the conceptual framework of leadership competencies. Since the problem is defined as the achieved quality that hinder most managers to move towards excellence and leadership in their work, the first most important task in our study was to find companies where the marketing management is in good (quality) phase and tends to move from good to great, to leadership.

Some recommended leadership competencies

The leaders of the highest levels are usually managers who have strong professional will, are ambitious, but they are also the individuals who are extremely modest and very simple. They are primarily separated from their own ego and they put it in the service of more important objectives – how to achieve and maintain a leading position for itself, their sector of activity and the company as a whole. This does not mean that they do not have a big ego and self-interest. They are actually very ambitious, but their ambition is primarily focused on the institution (enterprise) and not on themselves.

Theoretically adopted term "the fifth level" means the highest level on a scale of managerial skills, which essentially combines all the previous four levels of competence and something more - leadership competencies.

Some of the characteristics of the fifth level leader are: motivation, communication, preference for teamwork, democratic style of leadership, application of "their own example" principle.

Motivation. It is known that people are the only factor who think and runs things in a company, they are therefore the most essential factor, and that's why that is the main driver of successful or unsuccessful operation of the company. On the other hand, the managers are the ones who manage employees; management leaders "guide" those same employees. Guidance is in fact a process that is most easily achieved through motivation as a leadership tool, it can be observed also as a set of individual characteristics of managers to guide employees so they can be effectively mobilized for the performance of their work tasks and business goals (Buble, 2010). The basic concept of management leader which have leadership competencies is to become a head of the team, group, department, or business sector as a whole, so he can offer his own example to encourage employees to perform better and to be more active in achieving business goals.

Communication in the context of this paper's content should be seen as a good tool for manager that helps him to communicate with employees about his ideas, to motivate them, accepting the ideas of others, and doing all that in order to achieve his business objectives. Managers know that communication is a very sensitive human relationship where often conflicts arise, but it is also a very effective mean to solve them. Therefore, one of the core competencies of managers is communication,

but in a way that builds a positive atmosphere in which business objective can be realized; the most common communication mistakes that move away manager from that goal are: superficial (negligence) in relations, the lack of a positive atmosphere, avoiding contact with the employees, the lack of intimacy in communication, preventing employees to participate in decision-making, non-practicing praise for good work, etc. (Gnjato, 2005).

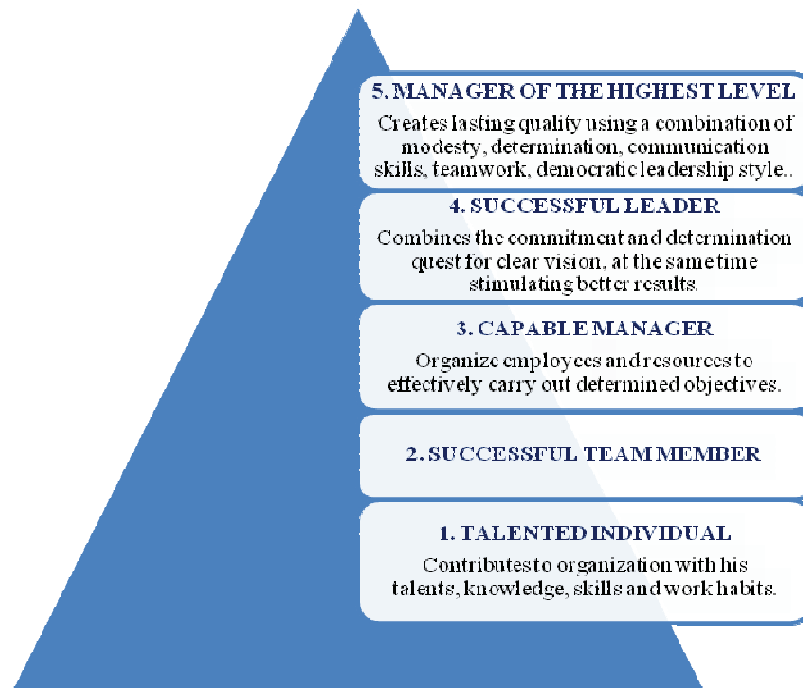


Figure 1: Five levels of a manager (source: Collins, 2007)

Preference for teamwork. Teamwork is the ability of groups led by the manager to work well together, and it's very important competence that should be preferred during work. Teamwork includes many elements: an inspired and creative leadership, respect, commitment, effective communication, a winning spirit, the understanding of teamwork, the ability to compromise (Rot, 1983). In the context of our paper, team is a form of formal organization of joint work and business processes, which is connected with specific goals and interests of the members, a common mission and objectives. Effect of teams depends on individual contribution of each team member and on development of leadership competencies of manager who leads the team to a preference of their teamwork positive factors, respecting above all the basic elements of the team: aim and objectives, the skills and abilities of members, an access and common working language, responsibility. There are many advantages of implementing team structure in the organization, but the two of them are most important - teams can help in company expansion and can enable faster flow of information, which leads to increased productivity.

Democratic style of leadership. With due respect for the hypothesis which is confirmed by many authors that a leader is not born, rather than leader is created through education (with presence of certain predisposition), marketing managers in their efforts to achieve and maintain leadership competencies constantly must be aware of this fact, and must build democratic style of leadership for themselves, among other things. The key to a good leader is in his interaction with others; therefore, leader's emotional role is primary in relation to the technique favored by middle-level managers who have no ambition to acquire leadership skills. Only persons who reach a high level of expert knowledge performing their job have a chance to succeed as leaders, and the main task of manager with leadership competence is in the correct perspective on a situation and then taking of action. Leadership style that establish the relationship between the manager and his associates can be fully recognized during certain action taken; respectively style is the way in which the leader directs the behavior of others in order to gain them over for the desired behavior that he planned. The most accepted graduation is: autocratic, democratic and liberal style. Unlike the autocratic style characterized by a manager making decisions

individually, with no trust in his associates, and where his influence is coming from the formal authority (his position in the company), a democratic style is characterized by greater involvement of associates (which implies a higher degree of motivation) indecision-making process, greater confidence in subordinate employees, which is why this style enhances the flexibility of the organization and contributes to better results. Therefore, middle-level managers are always focused on the tasks and they control employees to make sure that a task is successfully completed, but the fifth-highest-level managers who have adopted leadership competencies, are oriented to employees with whom they establish a relationship of trust democratic leadership style, using democratic style of leadership, and so they motivate them to better performance of their tasks.

To lead by own example is the most powerful leader's competence which manager can build for him. We have already mentioned the fact that management is a set of well-known processes, such as planning, structuring activities, budgeting, human resources, measuring performance, etc. In this context, with their work the managers are making contribution to achievement of production or services as defined by the plan, within budget, in accordance with defined quality, and all the way over and over again, day after day; and this is indeed a huge challenge for managers, but this is not leadership. Leadership is significantly different, and it is associated with the management of the organization in the future, with finding new opportunities that are coming faster and faster, and with creation of vision and motivation for employees to pursue that vision. Thus, although the manager and leader serve to different purposes, both are essentially required for the company; but the manager with leadership competencies is more willing to "jump into the future" and "peek" where the company should move in order to survive and develop with in increasingly dynamic market.

METHODOLOGY

The survey was conducted during October and November 2013, with the management approval of companies listed. Research preceded the introductory explanation about the purpose and significance of the research, as well as it was explained that their participation is voluntary and that they were guaranteed anonymity and confidentiality of the data which will be used only for scientific research purposes. Interest of surveyed marketing managers was great which is why a large number of questions were answered and just a small number was missed. Completing the questionnaire required approximately 15 minutes of a conversation lasted another 15 minutes. Study was conducted scientific research method, surveys and interviewing techniques, as well as an instrument in the form of a questionnaire. The survey was anonymous and the questionnaire consisted of 16 questions with three possible answers: much, average, less. The questions were related to the manner and style of marketing manager's job performance. The study sample included 50 marketing managers in companies which have marketing divisions (teams) in their structure, located in 16 cities in Bosnia and Herzegovina. For selection of companies and marketing management within them, performance analysis based on five years of operation was important, because we intended to eliminate the possibility of researching so-called "one-time miracles," or so-called "lucky accomplishments," because nobody should be that lucky for five years; and on the other hand, five years is about the length of the marketing manager mandate time. Another thing that was important in the development and exploration of problem was the answer to the question with whom to compare these marketing managers. The answer is that they should be comparable to those managers who have become leaders of excellence in marketing, and in this context the first phase of research compared common characteristics (such as the fact that they both are educated for marketing managers), and then in the second phase compared systematic differences, or answers to questions what is it that systematically varies the leader from good marketing managers. The third activity involved the thorough analysis of competence performance, from different sources and different aspects: strategy, style of leading marketing team, the application of modern information technology, method to motivate members of the marketing team, etc.

RESULTS

Questions from the survey and interviews, in the context of the paper's content, aimed to determine:

1. The scope of creativity application as a factor in achieving better results of marketing management.
2. The scope of motivation application as a factor in achieving better results of marketing management.
3. The scope of communication skills application as a factor in achieving better results of marketing management.
4. The scope of application of democratic leadership style as a factor in achieving better results of marketing management.
5. The scope of application of "their own example" good practice.
6. The scope of application of different analysis of their employee's behavior.

Research results, answers of participants, are shown in Figure 2.

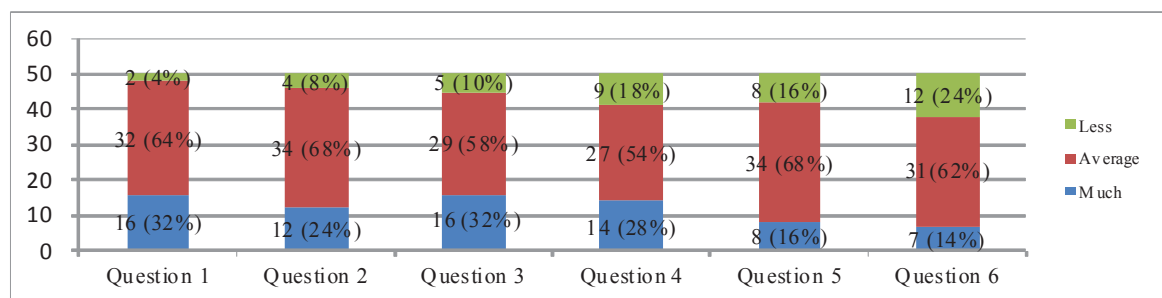


Figure2: Research results

DISCUSSION

The study results point to the devastating fact that the majority of surveyed marketing managers are using the previously known methods and established management procedures with purpose to maintain the quality of their work and the quality of business enterprise. Unfortunately, a very small number of surveyed managers expressed a desire to adopt a leadership competencies that help them to "step into the future" regarding their performance, and to create a vision of their work and their business enterprises in some future time. Taking into account the results of this research, and deeply aware of the increasingly dynamic business environment where this research was conducted, paper presents some of the leadership competencies that are related to the emotions of people as the main marketing resource management. The fact is that the adoption and implementation of these competencies will not require lot of financial resources for the company, but on the other hand their application will offer better market positioning for them. As well, one part of the surveyed marketing managers showed a tendency of "automaticity" in their work and the absence of much needed creativity, which is why the rest of this paper will be focused on the way it contains a lot of creative thoughts and ideas, and the authors hope that this paper will be significant benefit to marketing managers. Looking at the context of ongoing activities in this phase, which involves a detailed analysis of the marketing managers competence, here are a few interesting observations that were observed after analysis.

- Reputable marketing managers that arrive to company marketing department from "outside", negatively affect the process of transforming marketing from good to leadership-one, and also they individually do not have the required amount of creativity in a new company to develop their leadership competencies.
- On the other hand, marketing managers who are within one company for longer period of time and together with their marketing team and entire company go through various stages of transformation, are acquiring leadership competencies far easier, that are desirable for transformation from good to excellent.
- Analysis of data collected during the research activities in preparation of this paper, has highlighted the fact that financial compensation for marketing managers did not have a significant role in the process of building individual leadership competency, nor in the process of transforming marketing department from good to leadership-one, but it is in most cases a well-planned system of "motivation" was a key factor for achieving results.

- Usage of modern technologies in developing and implementing marketing strategies have accelerated changes and facilitated their implementation, but they were not caused (initiated) by it, and in this context it does not have much to do with the transformation of marketing strategy from good to leadership-one.
- Finally, perhaps the most interesting observation would be that marketing managers with built leadership competencies do not achieve necessarily good (leadership) results with current activities within advanced enterprises and market, but these results can be achieved even in mediocre organizations and businesses. This shows that excellence in the form of leadership competence is not the result of circumstances, but is mainly a matter of choice.

CONCLUSION

The leaders move us; they inspire the most-positive in ourselves. When we try to explain why leaders are so successful in their performance, then we usually talk about various strategies, visions, or powerful ideas. However, in reality, the great leaders work through emotions and they actually act as emotional guides for employees in the company. Throughout the history in all cultures it is known that leader always been the one whom everybody turned for support, encouragement or for a clearer understanding situation when faced with uncertainty; or when they should do some work. Leaders implement the vision by motivating, directing, inspiring, listening and arguing. It is important to know that emotions which prevails in people at work, most directly reflect the quality of business life. The percentage of time when people experience positive emotions at work is large, and in this sense, managers who spread negative rather than positive energy, simply are bad for the company. The paper highlighted the leadership competencies that are correlated with the emotions of people and whose consistent application can significantly contribute to better results of the marketing managers. As a major barrier to the adoption and implementation of leadership competencies for most middle-level managers, the main reason is specified - a factor of specified level achievement for predetermined quality and the results, and that represent satisfaction for managers because of what they usually stop there. At the same time, through entire paper it is emphasized that almost all organizations (and all managers, by analogy) can significantly improve their results if they apply conceptual frameworks of leadership competencies through their work; and just a few of those competencies are listed in the paper but the authors consider them very important. Finally, empirical research conducted on this subject matter has confirmed the thesis of authors that the application of leadership competencies in marketing managers significantly improves the results of their work.

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EDUCATION OF MANAGERS FOR HUMAN RESOURCES MANAGEMENT IN EDUCATIONAL INSTITUTIONS

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ABSTRACT

Educational institutions, despite the specifics that characterize them because they deal with education as a socially useful activity, are basically business systems whose main resource is the labor force which involves teaching and non-teaching staff, and management function in these institutions is awarded to the school directors with objective to accomplish projected educational outcomes. The legislation has defined that directors of elementary schools may only be a person with a degree in educational faculty. Unlike them, directors of secondary school can be individuals who, besides educational faculty may have some other university degree with mandatory certain period of time working in the education process, which means that in addition to their faculty education must have passed additional educational group of academic subjects. This legislation, from the aspect of management science, is producing a disadvantage for the school system, because of the fact that it is necessary to have managerial skills and knowledge to run a business system. The main objective of the study was to examine the extent to which existing school directors who have no formal managerial education, attending various training during their mandate, adopt and apply management skills; also to find out to which qualitative extent do they succeed to implement that knowledge in schools, with purpose to motivate the teaching and non-teaching staff to achieve higher quality levels for schools as educational institutions as well as business systems. The second part of paper presents some guidelines to directors who adopt managerial competence. This study is conceptualized on empirical research using the survey and interview techniques, but it also contains the scientific field basis of the human resources management.

Key words: human resources, school management, management.

INTRODUCTION

The main reason for conducting this research was to reach relevant indicators and determine to what extent the development of managerial competence in school directors affects the improvement of the human resource management as a school key resource, in order to achieve a higher level of school's quality. Legislation limitation was observed as formulation of the problem, where it is stated that directors of educational institutions (primary and secondary schools) can only be a person with a degree in educational faculty, who do not have needed managerial knowledge and skills necessary for managing schools on quality manner as a specific business system that essentially produce no financial profit but the specificity is reflected in education.

Object of this research were indicators that will give an answer to the question whether the adoption and implementation of management knowledge and skills, in school principals who have no formal managerial education, improve human resource management as a primary factor in increasing the quality of the educational process.

School management is carried out in specific social, economic and educational circumstances, and in the Una-Sana Canton where he conducted our research school management is identified with the role of the school principal, who has two functions under current legislation for this field:

- Function of manager that runs the school and operate with its resources as a business system.
- Role of pedagogic manager.

Noting that these two functions do not exclude one another, but they complement each other and together form a single unit, the first function can be observed as the fulfillment of school defined business goals, where school has conception of a business system, for which the school principal should have certain managerial skills and knowledge. Other role should be viewed as a leadership competence which implies that the principal is a "leader" whose primary function is to motivate all participants for better performance in the school as a specific business system, simultaneously fulfilling them with positive energy.

For correct comprehension, it is important to know the fact that emerged during this research that school principals of the western countries acquire listed managerial and leadership competencies through their formal education, but they also gain certain knowledge in law and finance, essential for good school management. Following this context, many universities of the western countries in their curriculum for prospective principals have academic lectures that embed the knowledge and skills in areas that we mentioned, and all of it together with pedagogic disciplines constitute an integral competencies required for high-quality management of the school as a specific business system. Unfortunately, this system of educating prospective principals of educational institutions is not represented in the countries of our region. Even the law regulations say that school principal can only be a person with a degree in educational faculty, where basically was just a few or none of academic management disciplines.

As the argumentation of our allegations about statutory limitations, here is a quote of Article 143 from Secondary Education Law ("Official Journal of Una-Sana Canton" No.17/2012), which refers to the election of principal, saying: "(1) For position of principal can be appointed a person who, in addition to the general requirements, in terms of qualifications meet the requirements for teacher or pedagogue position in a school where competes, and has at least 8 years of work experience of which at least 5 years indirect education processor pedagogical-psychological support process; has a minimum 7th level of professional qualifications, respectively completed first and second cycle of Bologna higher education process". The same formulation can be found in the Elementary Schools Law.

At the same time, the same laws and relevant Pedagogic standards, defined operational assignments for school principal which basically contain significantly more managerial functions, beside pedagogical content; an Article 151 from Secondary Education Law say: "(1) The secondary school principal is responsible for the legality of the professional work of the school. (2) The secondary school principal, along with duties and tasks under this law, perform and other duties: proposing school development plan, proposing school financial plan, issue a decision concerning legal employment status of employees, determines the schedule of duties for employees, resolve appeals and complaints of employees, submit financial report to the school board, organizes curriculum and is responsible for its accomplishment, organizing and supervising the quality assurance and improvement of educational work, cooperating with the government, non-governmental and other organizations with the approval of the Ministry..."

Above mentioned legislation segments show that the implementation of the majority of tasks requires school principal's managerial education (knowledge). In addition, school principal has current work tasks that need to be successfully implemented in order for school to achieve a higher level of quality; also the fact that existing parameters in the school environment are rapidly changing, and reform becomes more dynamic, what forces school principals to think and act more on managerial, strategic and leadership way, and less educational. As the most important indicator of the need to adapt to all dynamic changes, we are presenting details about the steady decline in the number of students attending primary school. Based on that, it can be concluded that the government, as the founder and owner of public schools, soon will have to implement reform and reorganization of education system. As one of the options for solution "merging" of two schools

under is a possibility, and in this context, it is logical to think that schools with poor results would merge the one with better results. The fact that is also important is that keeping the school system with the existing arrangement and number of schools has become very expensive and unsustainable in terms of the economy, assuming that the trend of the students' number reduction will be continued, what is realistic to expect. This should further "stimulate" the school principals to actively acquire and apply knowledge and managerial skills and then to apply it in their school's practice, in order to maintain a good position in a time of an increased competitive environment.

A detailed overview of reducing the number of students in schools in Una-Sana Canton, is shown in Table 1.

Table 1: Comparative review of trends in the number of elementary school students in the Una-Sana Canton academic 2012/13 year compared to the previous year (source: PI Pedagogical Institute of Una-Sana Canton).

	Municipality	Number of schools	NUMBER OF STUDENTS					Changes compared to previous year		
			2008/09	2009/10	2010/11	2011/12	2012/13	+	-	%
1.	Bihać	8	7108	6890	6626	5981	5624	-	357	5,97
2.	Cazin	11	6963	6944	6936	6518	6091	-	427	6,56
3.	Velika Kladuša	10	5152	5112	5158	4854	4667	-	187	3,86
4.	Bužim	3	2587	2514	2482	2277	2145	-	132	5,80
5.	Bosanska Krupa	4	3337	3254	3198	2867	2698	-	169	7,90
6.	Sanski Most	7	3336	3380	3104	2850	2687	-	163	6,16
7.	Ključ	3	1484	1505	1362	1247	1146	-	101	8,10
8.	Bosanski Petrovac	1	725	715	681	649	614	-	35	5,40
TOTAL COUNT		47	30692	30314	29547	27243	25672	-	1571	6,24

The table shows a drastic reduction in the number of students, in the last school year there was a 1571 student less than the previous year. If we observe the same thing for a longer period of time we can see that last academic 2012/13 year compared to the 2008/09 had 5020 students less, what means that seven schools with the average number of students had practically "disappeared".

In the context of previously mentioned, we emphasize the crucial role of school principal that, besides knowledge and his implementation of basic management skills, also reflects in necessity for possession of specific leadership competencies, so that school can be successfully "guided". As the first thing, school principal need to know how to initiate the interest of his staff and how to draw out their ambition and potential. Those characteristics should be used to reach new goals and tasks, and their survival depends on realization of it in a more dynamic environment.

It should be noted that in the reorganization of the education system and possible reduction of total number of schools, the number of students will not be single factor to be observed, but other qualitative indicators shall be determined through criteria such as student achievements on tests of knowledge and general indicators of various educational evaluations.

At the end of this chapter, once again it is important to emphasize the necessity of changing current legislation which regulates election criteria for position of school principal, and that are formulated at present to prefer non-managerial in relation to managerial formal education. Another thing that should be also emphasized is the need for the adoption and implementation of managerial knowledge and skills by the existing school principals, because the schools in addition to their primary role as educational institutions are also business systems with all elements as other systems, primarily with human resources as its key resource. The third thing is the need of "market thinking and acting" in the context of the reorganization of the school system caused by government measures to reduce costs.

HUMAN RESOURCES AS A KEY RESOURCE MANAGEMENT SCHOOL

It is known that in the educational system which is funded from the government's budget, human resources conceptually are observed mainly as an expense rather than as an investment or development potential, while on the other hand, many scientific studies have proved that human resources are a key resource and that exploitation of these resources and investment in their quality is a primary development factor, and not an expense. People, teachers – in the context of this paper, are "live" factor of specific organization as the school also is, because they are making most of contribution to improve educational outcomes in school with their knowledge, skills, abilities and creativity; and that way they lead to a higher level of total quality, providing good strategic position in relation to the concurrent environment (Staničić, 2006). Management of human resources in the school should be based on long-term and strategically created programs aimed to resolution of how to develop, engage, direct, motivate and control the available resources. The main characteristic of human resource management in school is focus on the future, ensuring the development of people as a key resource.

Planning and development of human resources in some organizations includes the analysis of competition, environment, current position and future position of the organization (Buble, 2006). Following the context of mentioned above, school principals as managers that possess certain level of knowledge and skill, must be a link between people (teachers and non-teaching staff) in order to most effectively achieve the objectives of the school as a business system, while achieving satisfaction as a motivating component in their employees (Staničić, 2003). As a kind of recommendations that may be useful for increasing the efficiency of each individual, we can refer to good practices of western countries where the individual characteristics of each employee are cared about, and also about teamwork, motivation, employee satisfaction with their status at the school. Unfortunately it is not a common practice in our schools; on the contrary, often the potential and reference of good-quality employee cannot be recognized, and usually those who act with more "fierce and muscle" emerge afore all those quality employees that stay aside. That is why it is necessary to emphasize some of the benefits of human resource management at school: higher efficiency of workers, good communication, better developmental competence, good cooperation with the relevant government department, good cooperation with the local community, increasing student achievements, improving the image of the school, good motivation of employees.

Therefore, human resource management is basically a directing function that involves management measures and activities in the process of job analysis, planning, training and development, evaluation of work performance, motivation, and has a primary importance; principal is implementing all as a bearer of the main control functions, and for that reason the principal is characterized as a person whom an ages the most important organizational resources of the school (Hitrec, Bilankov, 2005). Human resources in the school are observed through quantitative and qualitative indicators. Quantitative indicators show volume and size of this potential, also what are qualifications, age, work experience, etc. of employees as human resources; qualitative indicators tell us about the quality of the knowledge, skills, abilities, creativity, performance motivation, professional development training, etc. Human resources in the field of education can be observed through two groups: the one that directly achieves defined educational goals with professional and educational work (teachers), and another that provides the necessary conditions for achieving those goals (director, technical assistants, administration and support staff).

Total number of employees for the school 2012/13 year, in primary and secondary schools of Una-Sana Canton was 3793, of which to the first group of teachers that realize educational goals belong 2872, and another group which creates preconditions to achieve these objectives had remaining 921 employees. Finally, as a key function of human resource management in schools the fact can be mentioned that good-quality teachers have to be employed, as well as motivating these employees to develop themselves professionally in order to make quality contribution to achieving educational goals (Bahtijarević-Šiber, 1999).

Recommendations for good human resources management

Here are some recommended principles of good human resources management:

- To establish a balance between processes that imposed to school from environment through the planned route of the educational process.
- To achieve a good motivation of employees in their performance with development and optimal use of known motivational techniques (Kulić, 2005).
- To educate teachers and professional associates constantly through training to perform the tasks that they are assigned for.
- To ensure that the criteria of competence, professionalism and results achieved must be a universal basis for advancement.
- To prefer team work that facilitates efforts to achieve a common goal – increasing the quality of the school.
- To develop school (organizational) culture.
- To develop high quality management and human resource management (Kulić, 2005).
- To develop partnerships of school with surrounding.

As a basic hypothesis we stated that the adoption and implementation of formal management knowledge and skills by school principals would significantly increase the quality level of school, that function like a business system whose main task is the education of young people; purpose of applying known methods of additional professional development through seminars and training because the fact that education faculties in their curriculum have some or none of academic management disciplines.

METHODOLOGY

The survey was conducted during October and November 2013, with approval of the Pedagogical Institute of Una-Sana Canton and referred to the previous academic 2012/13year. Research preceded the introductory explanation about the purpose and significance of the research, as well as it was explained that their participation is voluntary and that they were guaranteed anonymity and confidentiality of the data which will be used only for scientific research purposes. Interest of surveyed principals was great which is why a large number of questions have an answer and only some are missed. To complete the questionnaire required approximately 15 minutes and the interview lasted for another 15 minutes. Scientific research method was used for this study; techniques of survey and interview have been applied, as well as an instrument in the form of a questionnaire. The survey was anonymous and questionnaire consisted of 10 key questions with three possible answers: much, average and less. The questions were formulated concerning adoption and implementation of managerial knowledge and skills in the management of the school as a business system, and in particular human resource management as a key resource of the school. The study sample consisted of 69 principals of primary and secondary schools in the Una-Sana Canton, found in eight municipalities.

RESULTS

Survey questions in the context of the content aimed to determine:

1. The extent of the importance of having managerial skills to run the school.
2. The extent of the importance of attending training to obtain managerial skills.
3. The scope of implementation of the principles of managerial knowledge and skills in the school management.
4. The scope of developing managerial competence among employees.

5. The scope of the results achieved by implementing management methods in the process of achieving higher quality in school as a specific business system.
6. The scope of good human resource management implementation as a key resource of the school, and the contribution of the reported extent on the qualitative performance results.
7. The volume of time spent on employees' motivation.
8. The scope of measurement instruments application for evaluating student achievement.
9. The scope of implementation of organizational culture scientific principles in the process of achieving better results.
10. The scope of principals' communication with their employees.

Research results, answers of participants, are shown in Figure 2.

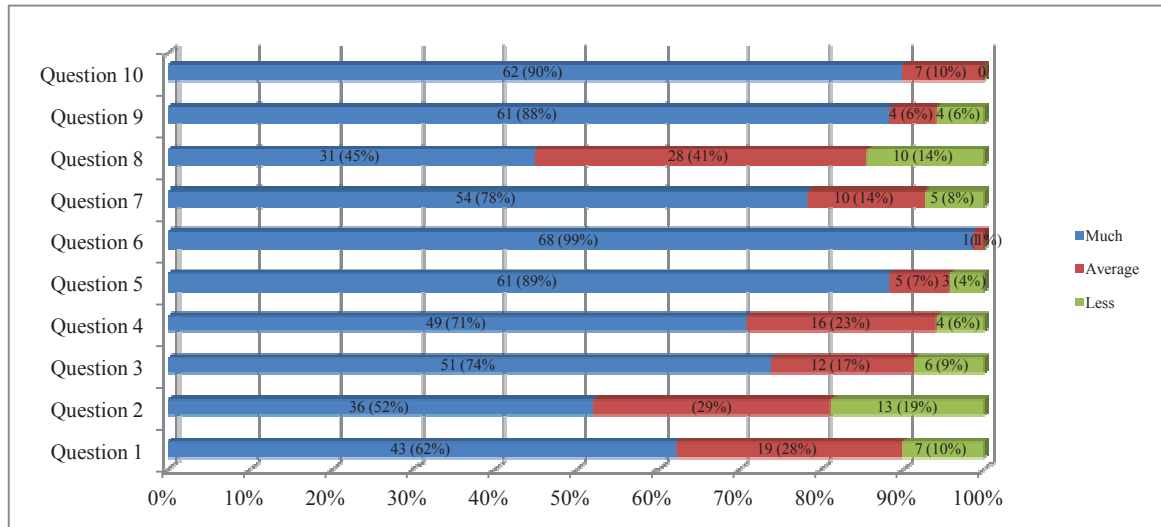


Figure 1: Research results

Research results show quantitative and qualitative activities of primary and secondary schools principals in the area where the research was conducted; it shows the principals efforts to acquire certain managerial knowledge and skills that they didn't had during their formal education, which can be use for lawful, efficient and good governance of the school as a specific business system whose main resource is the labor force (people) organized as a teaching and non-teaching staff. Principals acquire new knowledge mainly through additional training, visiting lectures and seminars at which the management science is presented; small part of them is enrolled in graduate studies at colleges that educate managers of different profiles. Also, most school principals is making an effort to transfer a part of managerial knowledge and skills through workshops and school internal training to their staff, in order to adequately prepare their main resource (people) for the common goal of achieving and long-term maintaining a high level of their school's quality; that is very important for them in a more dynamic environment which a result of the educational system reform. However, despite the positive trends identified during this research, the main conclusion would be that there is a need for legislation amendments and necessity to enable persons with formal managerial education to work as school principals, because schools despite its specificity are essentially business systems.

Analyzing the results of the survey it was observed that a large proportion (approximately 80%) of surveyed principals are aware of need for management knowledge and skills, that they can use for the good management of the school as a business system, and within that the need for good-quality human resources management as a key resource. The survey also showed that most of the surveyed principals (approximately 75%) acknowledge that need and constantly participate in management trainings, and later they implement that knowledge in their school through various forms of internal training workshops; after that they measure the results achieved by scaling the student achievements, but also other elements of the quality of the school. Principals tend to implement

management knowledge in their performance which directly results in increase of the school image in environment, knowledge such as organizational culture, motivation, internal communication, etc.

CONCLUSION

The fact that should be accepted is that the school is specific business system with socially useful activities. It is also necessary to consider the fact that current structure of school principals in the area where this research was conducted, however, does not have sufficient knowledge and skills to perform this first-time role which is reflected in the leadership and school resources management, despite the evident effort in learning the necessary managerial scientific disciplines. Activities that they conduct about their own professional development in this area are commendable, and school progress is evident after their implementation of the knowledge acquired, but the main conclusion is that still there is a need for legislation amendments to enable possibility for persons with formal managerial education to obtain a job of school principal.

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EFFECTS OF EMPLOYEES STRESS IN THE PROCESS OF CHANGE MANAGEMENT

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ABSTRACT:

This paper analyzes the phenomenon of stress on human resources in the process of change management. Today's business is characterized by a more dynamic and frequent changes that constantly impose advancing and improving. Stress is increasingly present in modern business, but human resources that successfully resist the pressure of stress and endure many changes, have a much better chance to occupy a stable market position in their country with the prospect of further market growth to the global market.

Key words: Stress, Change Management, Human Resources.

INTRODUCTION

Organizations must constantly change and innovate, otherwise they will have failures. Rapidly changing of business environment, the arrival of a new and better educated workforce and a remarkable progress in the field of technology impose the introduction of organizational changes in the company. One of the main factors that influence the success of organizational change, are employees of the organization. In any organizational change will appear larger or smaller resistance of employees, which must be removed if you want to have successful change. Implementing changes in the organization causes, not just the resistance of employees, but also stressful conditions that have a negative impact on the business, the employees and their motivation. Investigation of stress is particularly topical in situations of social, economic and every other crisis characteristic for modern society (Mihailović. 2010 p.327.). It is difficult to determine which type of change causes the most employees' resistance, but it is confirmed that the greatest resistance occurs in those changes that require major changes in people. The most important task of change management is to encourage people to change. ISO 26000:2010 emphasizes: "The aim of social responsibility is to contribute sustainable development." On the other hand, ISO 26000:2010 emphasizes that among other things, should be evaluated in terms of user satisfaction. Actually it should mean that employees are enabled to live and work without stress in their workplace in the organization, (Čiček & Bešker. 2011 p.40).

RESISTANCE TO CHANGE

Standing side effect of the change implementation is providing resistance to change by employees. During the changes period, the most of employed feel a large number of negative emotions that lead to stress. Stress is a complex emotional, physical and/or behavioral reaction that occurs when we get into the hazardous and/or disturbing situation. Stress is particularly harmful, unpleasant and also very expensive problem (Mihailović & Borovnjak, 2008). When change is perceived as a desirable and necessary, it still causes stress and therefore it should be treated effectively. If the

organization is not sure what will be the result of a change, stress will appear as a result of uncertainty. The initiator of change or a manager that leads change must take into account the amount of resistance to change and he needs to reduce it. Resistance occurs because of the change itself; change the usual order in the company. The level of stress depends on the type of change that is being implemented and on consequence caused by employees. Stress is a mental and physical effort that an individual feels as a result of the surrounding factors and must be studied for at least three reasons: The first reason is that stress can cause psychological disorders in man and leave psychological effects on his health, to the extent that incapacitates him to do the job. Another reason for studying stress is that it can be a common reason for the absence of workers. The third reason for studying stress is that there is a risk that the stress is transferred to other labourers in the nearby vicinity. According to Lawless "Two important factors and consequences of the stress are: high levels of job demands and little control over work." (Lawless, 1992) Stress can be such that it reduces the efficiency of the organization before the implementation of the organizational change, because it attracts the attention of the employees so in that case they focus on achievement of results. Stress management is a range of activities to be undertaken in order to reduce its causes in the organization and training of employees to successfully confront and overcome stress, in order to minimize the negative consequences for the individual and the organization (Sajfert., 2006).

WORKING ROLE AS A SOURCE OF STRESS

The sources of stress are most often classified into those that arise from the personality and its susceptibility to stress reactions and sources of environment imposes. In operational terms, systematization source of stress is simplified as sources of stress in the organization and sources of stress outside the organization (Čižmić., 1995. p.122.). Stress is significantly affected by the role that employees have in the organization. It can be considered to work roles and role in communication and conflict. This dual role is created when an individual doesn't have clear information about what is expected of him and what is his job. Work role is a set of norms, beliefs and behaviours related to a particular job. Work role that the employee has in the organization or work group, can be a generator of stress response. Stress occurs because of work role ambiguity when there is uncertainty and lack of clear definition of requirements in terms of specific roles. Stress at work is inevitable and it is a phenomenon which, sooner or later meet every person, regardless of profession and employment. The most common characteristics of the task, which may cause the experience of stress, are:

- Difficulty of the task - when task requirements exceed the capabilities and knowledge of workers who perform it.
- Confusion task - refers to the uncertainty of workers in terms of what is the task or the relevant standards for assessing performance.
- Overload - a special kind of task difficulty arising from the requirements to perform complex tasks. Worker can individually do each one only if the organization of the work have assigned them as some that they can't do at once.

Researchers Schaubroeck, Ganster, Simei and Ditman have tested two groups of non-academic workers and with the experimental group they have clearly identified the areas of responsibility of each individual, as opposed to the control group. Researchers have found that training reduced the dissatisfaction level of employees by supervisors in the experimental group. At the same time, these figures have remained unchanged among employees in the control group. This study provides insight into how the ambiguity stress can be reduced. The diagram of presented research is shown in Figure 1.

In the group of organizational stress reactions causes can be classified the work assignment with its component activities, operations and movements. The assignments may have different functional relationships to the other cycle of stress variables:

1. First, task can be a source of stress when task requirements exceed the capabilities of workers. In this case, as more difficult task it is, the effect will be lower, provided that all other factors remain unchanged.
2. The task can be carried out in the period of a various stressors effects in the environment that interfere with the execution of the task. Due to external stressors, impact of stress can be twofold:
 - A task can be so important, that there is a neglect of external stressors, and that's because the abandonment of the task may represent a substantial source of stress, then external stressors.
 - If your need to complete the task is not strong, stressors in the environment may act to reduce the impact or the abandonment of the task.
3. The task can be performed with the intention to remove the stress from the environment and in that way it can have the function of dealing with stress.
4. Task performance and its variations can serve as an indicator of the stress experience and the performance level indicates the degree of stress present in the work.

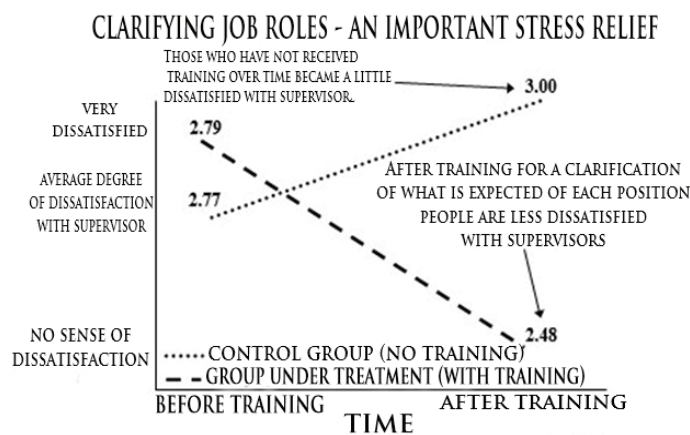


Figure 1: Results of the research

Source: Based on data presented by Schaubroeck, Ganster, Sime, and Ditman, in 1993.

RELATIONSHIP BETWEEN STRESS AND WORK PERFORMANCE

Stress management is the manager task and it is done in three stages. Understanding stress and its impact on the employees performance, is the first stage in managing stress, where the manager needs to know the relationship between the "size of stress" and "amount of worker performance." This relationship is shown in Figure 2.

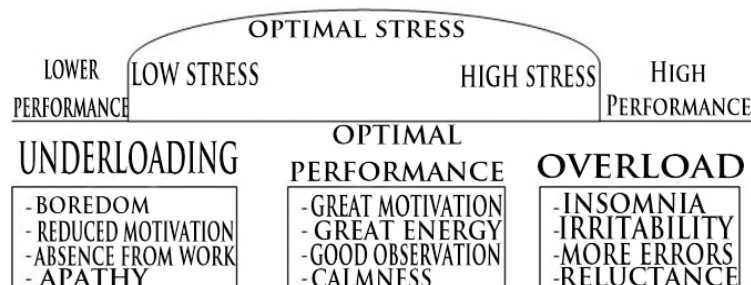


Figure 2: The relationship between stress levels and work performance (Ivanevich & Matteson, 1990)

In the figure 2. we can see that the stress may be "low", "optimal" and "high", so that low and high stress corresponds to the weak work performance, while the performance is the most in the middle. Those individuals who feel the optimum stress contribute to increased performance, unlike the

others who feel very high or low stress, which affects the performance reduction. The second phase of stress management is to identify where stress in the organization is. When we accurately determine where stress exists, then we must determine whether the stress is at the appropriate level, or is it large or small. Low psychological stress can be increased acting on the desired level, as opposed to the high stress, that can be mitigate by subtle methods. The hardest job of the manager is to identify the people in the organization who feel high levels of stress. This task is difficult because people react differently to change, so the stress level is different for each one. Helping employees to control and cope with stress is the third phase in the stress management. Researchers have found a correlation between stress, performance and motivation. Figure 3 shows the exploration of the relationship between stress and job performance, which confirms that there is an inverse "U - line" relations:

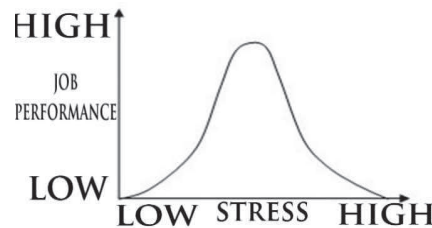


Figure 3: The relationship between stress and job performance

If there is no motivation to work, the reward for a well done job or a lack of individuals ambition for their role in the organization, they will invest a minimum effort. However, as the level of motivation increases, the stress level increases along with productivity and efficiency. The real value of stress can make a man to behave creatively, with more interest for his job. However, if an individual becomes too oriented towards success, or demands and pressures become unrealistic and unreasonable, the performance will fall again. High stress level will impair a person's health and her mental stability. It shows that people are not usually highly motivated if the task is performed extremely easy or extremely difficult. If the task is estimated to be extremely easy, insufficient stress will be produced because the motivation is low. If the assignment is estimated to be extremely complicated, perform is stagnated due to high stress level that occurs as a result of trying to meet unrealistic goals. It is obvious that we must find a balance in the work difficulty, if we want to sustain the health of workers and have a successful work. The balance must be maintained individually by the manager and not collectively.

EFFECTS OF JOB STRESS ON JOB PERFORMANCE

The long and exhausting struggle with stress can be exceed to the so-called stress disease. It is a consequence of long-term resistance to pressure and is manifested through a variety of health problems. First interpretations of the physiological stress have not taken into account the dimension of psychological stress reaction, and the fact that one and the same situation for an individual represents high-stress, while the other does not have to react to the stress. In some cases, the stress can have long-term effects on people. Nowadays, scientists are increasingly exploring a particular form of very intense and prolonged stress associated with the job, so-called "Burn-in". It is a general feeling of fatigue that can develop when a person experiences too much pressure and too little satisfaction. "Burn-in" produces feelings of hopelessness, powerlessness, ruthlessness, anger, failure, stagnation or decrease in productivity. It is often considered as the last phase of stress relations development in some profession and as the final result of the stress. Then, it is a complex syndrome that consists of three specific conditions: Emotional exhaustion –it is feeling of exhaustion, incapacity for work on the next task, the lack of enthusiasm; Depersonalization – it is establishing psychological distance between one person and the others; Sense of personal failure - abandonment of previous goals, expectations and futile investment efforts.

The effects of stress can be divided into individual and organizational. Individual effects of stress are related to job performance, inability to make good decisions, poor concentration, poor attention, hypersensitivity to criticism and mental block. Organizational effects produce stressful conditions for their employees, and the consequences are: reduction in performance, flexibility and competitive ability, absenteeism, fluctuation, low productivity, alienation of associates, job dissatisfaction, reduced commitment and loyalty to the organization. Reducing the vitality and the ability of employees, intense stress reduces the overall vitality and ability of the organization. Canadian philosopher Hans Selye in 1959 has noted that in each reaction to stress, there are three phases (*Mihailović. 2010 p.328.*):

1. Phase "alarm reaction" is the initial phase that has short duration in which the organism is gathering the forces prepared to deal with stress;
2. At the stage of resistance, organism enters into battle with stress and tries to adapt to it. If the pressure decreases, it means that a person overcomes a stressful situation.
3. If the mechanisms of adaptation do not prove as effective, there is a phase of exhaustion.

People that can be "victims" of labour and emotional exhaustion, fall into three categories. The first category consists of idealists and people of extreme motivation. The second category are people whose goal is to win and who never watch the final result; when they achieve a goal they are usually unhappy and often set new goals. The third category consists of those who set goals that are too difficult for them.

EXAMPLES OF RELATIONSHIPS BETWEEN JOB STRESS AND PERFORMANCE

According to a study by The European Agency for Safety and Health at Work (EU-OSHA), occupational stress is present in every third employee in European Union. According to data collected in the EU stress at work is covered by 28% or 41.2 million employees, more women than men. Stress at work is a matter of concern for the most of the European workforce, according to a second EU-OSHA opinion. A survey conducted by Ipsos MORI and EU-OSHA, collected the opinions of over 35,000 people in 36 European countries on current issues related to the workplace, including stress at work and how important safety and health at work are for the competitiveness of the economy and context of longer working life. 80% of employees across Europe thought that the number of people who suffer from stress related to work will increase in the next five years, and 52% expected to "be significantly increased." These data represent the results of ESENER, under the auspices of the EU-OSHA about new risks and risks at new workplaces and there was evidence that 79% of managers think that stress is a problem in their companies, and that the stress in the work is as important for companies such as occupational injuries. Stress related to work is one of the biggest challenges that Europe faces, in terms of safety and health at work and represents a huge cost about human health, employee safety and economic impact. The poll showed that majority of Europeans (86%) agree that it is necessary to implement good practice in health and safety at work if a country want to be economically competitive, while 56% of respondents strongly agree with that. The views were similar among the employees and those who do not work (86% of the first and 85% of the second group agree with that). The financial crisis and changes in the labour imposes higher requirements to employees, so it is not surprising that people think of stress as a factor that most threatens them in the workplace, says Dr. Krista Sedlacek, Director of EU-OSHA. "Regardless of age, sex, size of the organization, the most people believe that work stress is increased. Despite that, there are interesting national variations in those who expect stress to be "greatly increased", while the Norwegians are the least worried (16%), for example, the Greeks are the most concerned regarding the increase in stress (83% " it will increase very much "). Address the problem of psychosocial risks is the main goal on which EU-OSHA insists, and that will improve the lives of employees across Europe." When we talk about Serbia, almost four out of five (78%) of the respondents believe that the number of people who suffer from stress will increase in the next five years, which is almost in line with the answer that was given by the citizens of EU. In addition, nine out of ten people (89%) agree that the respect of safety and health at work is contributing that Serbia one day becomes economically more competitive country. (www.Economy.rs)

According to a recent survey about stress by the site poslovi.infostud.com, almost half (44%) of the total 823 respondents, everyday feel stress. The most common cause of stress is lack of funds - recognizes a quarter of the participants. Common causes of stress also can be: a problem in the workplace, the environment, people at work and in private life. Only about 4% of people do not feel stress or feel it in small quantities. The highest and the most often stress feel full-time workers, daily or several times a week, and rarely under stress are self-employed and artists. When we talk about positions levels, the most intense stress is experienced by workers, professionals and managers, who are under stress every day, and a minimum of work stress have interns and those on the initial positions. Every fifth employee respondent admits that the most common cause of stress is sense of powerlessness to affect things. The great cause of stress among employees is the unreasonable demands of his superiors, lack of or poor communication within the team, as well as earnings. Slightly less employed respondents told that the cause of stress is lack of job security, overtime and working with clients. Stress in the majority of respondents is expressed through nervousness and irritability, fatigue and mood swings. Some respondents felt distraction, headaches or constant fear. The smallest number of respondents felt insomnia, low immunity and physical changes. The most employees believe that the crisis reflects the company through reduced wages, dismissal or stopping the recruitment of new workers. A slightly smaller number of workers believe that the crisis will result in the closure of the company. (www.infostud.com)

CONCLUSION

It can be concluded that stress is one of the most significant health and social problems. Therefore, the reason for the problems with occupational stress in the workplace is regulated by the International Standard ISO 26000:2010 (E) - Guidance about social responsibility. In transition countries, like the Republic of Serbia, stress in the workplace is very present; economic crisis creates such an organizational climate that entails the frequent changes, pressure, the constant dread of losing jobs. Working under such conditions that are imposed by frequent stressful situations is preventing human resources within an organization to respond to changes that are more common. It is very important that managers recognize when the stress levels in the organization exceeds the optimal level and concentrate to manage stress in a way that can be productive both, for the individual and for the organization. Maintaining an optimal level of stress in the organization is very important, because otherwise the stress will produce large losses and costs, not only because the reduction of production, product quality and irrational use of resources, but also because of the inability of the appropriate response to the changes and impossibility of creating a competitive advantage.

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EFFECTS OF EMPLOYEES MOTIVATION IN THE PROCESS OF CHANGE MANAGEMENT

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ABSTRACT:

This paper analyzes the importance of human resources motivation in the process of change management in modern business. The employee motivation issue is one of the issues related to business management through the process change management that are increasingly gaining in importance each year. Each company must find an optimal combination of material and non-material incentives for their employees to make a successful business and to be able to adequately respond on the constant changes imposed by modern business.

Key words: Motivation, Change Management, Human Resources.

INTRODUCTION

Motivation is the process of initiating activities to achieve certain goals, directing the activities of certain facilities and regulate the manner in which it will be treated. Motivation is a general term that refers to a set of instincts, needs, requirements and desires. We can say that managers motivate their subordinates so, that they do things they hope it will satisfy the urges and demands of subordinates. In that way subordinates are encouraged to behave in a desirable manner and effectively participate in the acceptance of change. Motives are internal factors that drive the activity, which is directed and administered in order to achieve certain goals. Motives are organic and psychological factors that drive and direct the behavior of the individual, his actions, perception, learning and thinking (Rot. 1971 p.196). Motives sources are the needs and the needs imply a lack of something. Incentives are such objects and situations that cause a revival motives (awards, praise, money, titles ...). Primary needs are physiological requirements for water, air, food, sleep and home. Other needs, such as the need for self-esteem, status, connections with others, loving and giving, achievement and self-assertion may be considered as secondary (Sajfert. 2002). Motivators are things that encourage individuals to act. Motivators are also the means by which we can reconcile the conflicting needs or emphasize a need in the way that it is given priority over other needs.¹⁴

THE IMPORTANCE OF MOTIVATION IN THE CHANGE PROCESS

In the past hundred years, the work of a serial production has transformed into a far more creative job, where machines took over all the repetitive, routine tasks, allowing people to devote themselves to those parts of the business processes that require creativity, adaptation and innovation. In this new economy, the main tasks of managers are also completely changed. In the new economy, the main task of the manager is to continually develop the potential of each employee and to do the execution of any new business task and chooses just that one group of workers that would have an optimal set of capabilities to accomplish the task. One of the pioneers and most prominent theorists of business management Peter Drucker, provides the following overview of the challenges in management and leadership for the 21st century: For worldwide

managers a major challenge in the period ahead will be the motivation of people who work with them. Everything else can be easily purchased in a global economy, where the cash flow is absolutely free. As always in life, the most things are priceless and cannot be purchased. (Matić, 2007. p.14.)

The significance of motivation grows with the needs of more efficient organization and better work opportunities. Performance of employees, managers and the overall performance of the organization are resulting from the triangle whose vertices are in Figure 1. (Dobrivoje, 2010.)

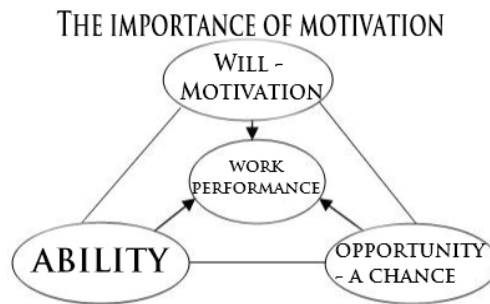


Figure 1: The importance of motivation

Without proper motivation for change there will not be enough energy to perform one. Any major, serious change implies that employees accept that something changes in their working environment, workplace or mode. This acceptance can be provided only by employees' motivation. At the beginning of the change process, it is essential that the manager motivates employees to change and to raise the level of desire for change and the energy that they intend to invest in that process. Problem for management is that the motivation for change cannot simply impose or order. People can listen instructions to change something in their work, but if they are not really motivated to implement this change, it will not be really successful. The manager should not be allowed to make mistakes like "self-projection"; that means if he sees reason to change, and if he is motivated to change, other must be equally motivated. For this reason, any implementation of the change process must start by proving why changes are needed, what good can be expected from the change and what will happen if the changes are implemented. Using reverse "U" line it can be obtained correlation between motivation and capabilities of success, as it is shown in Figure 2.

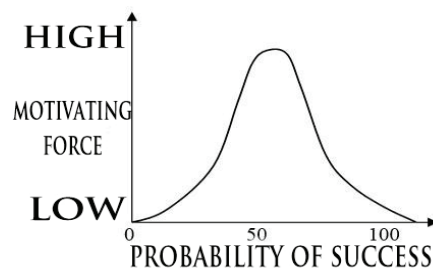


Figure 2: The relationship between motivation and success probability

This figure shows that people are not usually highly motivated if the task is performed extremely easy or extremely difficult. If the task is estimated to be extremely easy, insufficient stress will be produced because the motivation is low. If the assignment is estimated to be extremely complicated, perform is stagnated due to high stress level that occurs as a result of trying to meet unrealistic goals, and that excess of stress affects the health and strength of personality. It is obvious that we must find a balance in the work difficulty, if we want to sustain the health of workers and have a successful work. The balance must be maintained individually by the manager and not collectively. Although there is no simple solution, there are patterns of behavior, skills and attitudes that can be developed and used to deal with stress. If we want employees to accept the implementation of organizational change, it is necessary to go through the following steps:

1. Detection and identification of dissatisfaction with the current state
2. Participation in the change is another step towards successful change.

3. One of the ways that managers use to motivate a rewarding desired behavior.
4. The fourth step consists in the fact that people have time to get rid of the current situation.

MOTIVATIONAL APPROACHES IN ORDER TO HAVE SUCCESSFUL CHANGE

Defining the factors of motivation for work is particularly important to consider the motivation and mechanism of stimulation within the modern organization. Motivation factors include a wide range of processes, relationships and the basic concepts of motivation. They refer to those events and processes that can be localized between motives and goals. That identifies the function relationship between goals and motives, and motivated behavior. Motivation factors can be many individual variables, the impact of the social environment, the dimensions of the work activities, mutual interaction of situational variables and others. Their mutual interactions, individual intensity time stack and other forms in a very complex way determine motivational level and the labor workers effects. In the theoretical considerations and research efforts there is division of motivation factors on tangible and intangible. This systematization of the motivators is based on goals (simulators) that are present as distinctive attributes of relations. Dominant forces do not start in areas of physical abuse or the incentive of the money. It starts in the sphere of self-realization, professional and general development and engaging personality. Because of that, the factors of work motivation, with the exception of the personal earnings allocation, are mainly based on the motivators development. The theoretical analysis and the research approach to the problems of motivation is very common effort to establish a ranking ladder or hierarchy of systematization incentives according to their importance and driving forces. Making hierarchy of motivational factors have not much justification because it is highly variable relationship between the product of the environment and time. Motivational factors rank can vary significantly, even for short periods of time.

Motivational cycle leads to different management capabilities of complex phenomena such as a human motivation. Motivational cycle begins with chosen or imposed target. This goal comes from motive, which is implemented through work series and other activities. These activities (by their nature) take the number of obstacles, both objective and subjective frustration. If you offer to worker adequate and attractive targets, with appropriate care it can cause the desired behavior. If the increase in efforts result with overcomes the frustration, they lead to the selected target, figure 3.

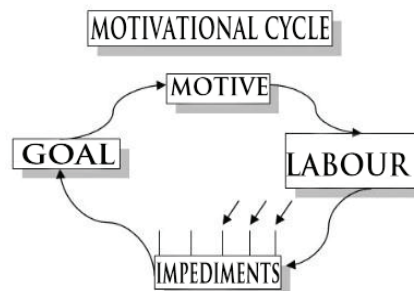


Figure 3: Motivational Cycle

Motivation can be seen according to systemic and situational aspects. With a given complexity of motivating people with their individual personalities and different situations, there is always the risk of failure when any individual or group motivators are applied without taking into account these variables. Human behavior is not a simple matter and it should be seen as a composition of variables and interactions where some motivating factors are emerged as an important element. Even human instincts and desires are caused by physiological needs or needs that arise from one's origin. But what people had willingly devoted, is under the influence of organizational atmosphere. At one point, atmosphere can brake and the other to encourage motivation. The interaction between motivation and organizational atmosphere underscores the integral aspect of motivation and also emphasizes that motivation depends on, and affects the leadership styles and management practices. Leaders and managers must respond to the problem of motivating individuals if they want to create an environment where people can work with great interest. Similarly, managers can create an environment that will increase or reduce motivation.

Strategies and methods of motivating employees to change describe mechanisms to develop employee dissatisfaction with the current situation and the positive expectations of the new state, from which it should follow their willingness to accept the upcoming changes. The practice of successful change program offers several basic groups of techniques for inducing dissatisfaction with the current situation and motivation for the change:

- Communicating with employees - Basic forms of communicating with employees are verbal, non-verbal and symbolic communication
- Employees exposure to objective information - This group of motivational techniques is based on the assumption that feedback on performance from external sources can act so, that employees gain real insight into the situation and be more motivated.(Huber & Glick, 1993.)
- Teams and participation - A special group of motivational techniques for employees to make changes, are techniques which employ teams and encourage participation of employees. The key idea behind this technique consists in the fact that through the teamwork of employees releases their creative energy and focus towards the implementation of changes.
- Changing the system of evaluation and reward - Motivating employees to change can be done by changing the reward system, assessment of effects and in that way their former behavior and mode will be unacceptable in the future.(Colin, 2003)
- Rewarding the first acquirer of the change - Giving prizes to those who first accept the changes; other employees may be encouraged to accept those changes too.
- Modeling desired behaviors through the pilot project - The most efficient way to do this is to introduce changes first in one part of the organization through the so-called pilot project. When changes in that part of the company success, then it becomes a model of how to work in other parts of the company. It is a very strong motivational mechanism because it shows clearly that change is possible.
- Incubation - Incubation period is often a necessary pre-requisite of motivation to change. The incubation period is the time it takes to pass that some people accept the changes.

EXAMPLES OF MOTIVATIONAL FACTORS

In a larger study (Možina, 1969) there are compared the importance ratings of some factors about workers professionals and managers production. We can see very marked differences, which are represented in Table 1.

Table 1: Motivational factors (Možina, 1969).

Motivational factors	Rank of motivational factors	
	professionals and managers	production workers
Success in work	1	3
Personal income	2	1
Opportunities for professional development	3	2
Good interpersonal relations	4	4
Interesting work	5	5
Opportunity to participate in decision-making	6	5
Free time	7	7

The differences are most noticeable in ranking the importance of personal income. Production workers give first rank to the personal income, while for professionals and executives, give it fifth rank. Opportunities to participate in decision-making to workers have relatively little meaning, but it is still higher than the importance of this factor by experts and executives. Training courses for workers and managers are very important. Both groups attribute it to a very high rank. An interesting fact is that the motivating factor arising from the work itself, have a relatively little significance for both groups. This element of the work has greater importance for managers. This is supported by the fact that the most important element of motivation for managers and professionals is the success of their work. Another study of motivational factors had responsibility to respond to a personal question "Are we doing it for

the money?" The result is data about the effect of motivational material factors and hierarchy of motivational factors that present the most convincing incentives in organizations (Table 2).

Table 2. Motivational factors (Jurišić, 1971.)

Motivational factors		The percentage of workers who think that is the most important motivational factor	
Personal earnings	Higher wages	31,90	55,90
	Fair allocation	24,00	
Relationships between people	Better relationship with managers	8,90	14,50
	Friends on work	5,60	
Technical working conditions	Better organization	9,70	14,50
	Better working conditions	4,80	
The achievement of personality	Possibility of advancement	6,60	11,30
	Larger appreciation of their proposals	3,00	
	Job with a higher reputation	1,10	
	Greater awareness of the business	0,60	

Based on this research between 10 different motivators, we can see that workers in the first place have the need for personal profits. Very high ranking has equity of personal earnings allocation, also factor of the material stimulation. For the majority of respondents (55.90%) the most important reasons for advocating in the work are personal income, the amount and manner of their allocation. According to this research, the worker "work for the money" and the exercise of his personality, as a factor in the commitment to work, is in last place. Other factors related to the technical requirements of the work, labor and human relations are also of minor importance and do not have a decisive impact on the motivation level. In one recent study, conducted in collaboration of Belgrade Chamber of Commerce and the Faculty of Organizational Sciences in Belgrade, it is covered a very representative sample of respondents with a university degree. Their work engagement had examined and as a result emerged the following ranking factors that encourage higher quality and quantity of work (Table 3).

Table 3: Work incentives (Ćamilović)

Encouragement to the work	% answers
Interesting job	55,55
Independence in performing the job	54,16
Interpersonal Relationships	30,45
Work disciplines	29,23
Being informed about the business	27,81
Organization of work	22,48
Solvable housing issues	20,94
Influence in deciding	20,45
Status as expert	19,11
Allocation of personal earnings	18,72

For respondents who have a higher education the strongest motivational effect have certain characteristics of jobs and tasks they perform. It is interesting of the work and autonomy in their work. Interpersonal relationships, work discipline, awareness and work organization also affect work motivation. The salaries breakdown has some influence, but it is much smaller compared to other populations. Differences in the rankings can be interpreted:—Various times in which the study was conducted:

- Different economic and social status of the respondents and
- Different methodological approaches.

While we cannot speak about consistent hierarchy of motivational factors in terms of organization, mainly due to the variation of mutual relations between motivators but also because of the lack of research in this area, we can still recognize its basic contours. We cannot ignore the strong

stimulating effect of personal earnings. It seems to be that personal fees and equity of its allocation are also the same height important.

In this sense, the principle of allocation according to work, is becoming a central principle motivation for working investment. Technical conditions and interpersonal relations have a specific interest in encouraging the work. Among the factors that have the character of self-realization, opportunity for advancement is the most significant, both in terms of professional development and in terms of taking more complex and demanding tasks.

CONCLUSION

In order to have successful and competitive organizations in current changing business conditions and changing environment, you must be innovative and introduce at the right time the necessary organizational changes in order to achieve or maintain the position of market leader. When company is introducing and implementing organizational changes, there are problems such as locating a resistance of employees. To reduce or remove employee resistance to the implementation of organizational changes, it is necessary to properly motivate employees, because the implementation success largely depend on them. The important manager task is motivating employees to change and he represents the agent of change. This is an extremely important task, without the changes cannot be successfully implemented. The beginning of the organizational change process and initiating change is related to the maturation of awareness among managers, that change is necessary. Without managers conviction that the changes are needed, changes will not occur. It always involves a change of employees' behavior to a greater or lesser extent. It is necessary to present the vision of the new organization and develop positive expectations for it. The essential idea is that management develops psychological security to the workers that the new organization will bring something good to the company, as well as them personally. Manager should clearly indicate the benefits of the new organization and what it will bring to the company. Quantification of the change results can be great help in ensuring that it will become attractive to employees. Almost every organizational change requires that employees change their own routine operations, the way they do their work and their behavior. To accept and implement these changes, employees need to be really confident that the changes will bring something good to them and to the organization they work for. This conviction can be best achieved by custom techniques for motivating employees.

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Session D: MARKETING AND MARKETING MANAGEMENT

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COMPETITIVE ADVANTAGE OF SERVICE COMPANIES BY CREATING STRONG BRAND THROUGH EFFICIENCY MANAGEMENT

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ABSTRACT

Today, companies are exposed to challenges of long-term development in harsh market conditions. In such circumstances competitive advantage is precondition for creating customer loyalty toward company and products. Service companies have especially difficult task, for the characteristics of services such as intangibility, perishability, inseparability of production and consumption, and others. Those characteristics affect the possibilities for creating innovative approach to customers in delivering superior service. Creation of strong brand image, facilitates the provision of guarantees for standard quality of services. It also helps with construction of perceptions and expectations which have the most influence on customer satisfaction. Companies that are oriented towards business market, besides all these elements have to pay attention to technical possibilities for managing service delivery to customers that have little or no tolerance for mistakes. In order to ensure positive results, it is necessary to make an effort in all segments of process of delivering services. This paper has aim to present theoretical concepts of creating strong brand, as support to creation of competitive advantage. This approach is supported by presentation of applicative data warehouse "RSoft" that has been developed for overall monitoring in working process of service companies, in order to enhance efficiency and ensure a long-term competitive advantage.

Key words: Services, brand image, competitive advantage, application software

INTRODUCTION

Companies that are managing their business in today's competitive market are confronted with some major challenges. The most important questions that arise in such circumstances are matter of survival in the market, of making profit, of companies' development and growth, and of gaining new customers and retention of loyal ones. Base point in achieving stated goals is knowledge about target customers' needs and wants, and their satisfying in the manner that exceeds activities of competition. In the service marketing, environment and business surrounding is somewhat more complicated than for the manufactured goods. Characteristics of services affect the occurrence of specific factors that make provision of services more difficult in the market. Services have become important constituent part of national economies, especially in highly developed countries. Some sources indicate that near 70% of GDP in the US in 2011, was generated by services (Dotzel et al., 2013). Other sources state that the share of services in the GDP of developed countries, is between 67% and 92% (Hoffman and Bateson, 2011). These data show that research on service marketing is highly important as to preserve and advance future trend of growth of national economies.

Companies in the competitive markets became aware of the fact that they are not able to satisfy the needs of all customers, neither by the quality of service nor by the quantity of available resources. Difficulty of achieving customer satisfaction lies in the fact that they are either too numerous, or spatially dispersed, or heterogeneous in the purchase requirements (Vasiljev, 2005). Therefore, valuable action would imply focusing on the most profitable and most desirable segment of

customers, in whose minds company could achieve good position and based on that competitive advantage. According to author Porter, competitive advantage arises from the value that companies are able to provide to their customers (Porter, 1998). At the same time, it is necessary that the costs of creating such value are lower than the value itself, as to remain profitable for the companies. One of the methods for gaining competitive advantage of service companies is constant implementation of innovative solutions to the business processes (Dotzel et al., 2013). In the most cases, innovations are perceived through the prism of new technical solutions and improvements of physical characteristics of produced goods. However, as author Drucker said, innovations do not have to be of technical nature at all, nor tangible either (Drucker, 1985). They include different improvements in managing processes, decision making, organising of marketing activities, production activities, and in usage of existing knowledge and tools. According to definition given by the group of authors (Dotzel et al., 2013), innovations in service companies include new, intangible parts of service offer that have a goal to improve market performance in order to increase value for customers. Strong, memorable brand is consisted of positive consistent customer perceptions about the company's offer that differentiate it from the competition (Marquardt et al., 2011). In general, brand represents guarantee of service quality. By that guarantee companies increase customers' trust in service provision, that their expectations will be met through the process (Marquardt et al., 2011). At the same time it lowers the risk in customers' minds of making the wrong purchase decision. In service marketing branding has significant role, for it enables customers to better visualise service "products" (Chahal and Bala, 2012). Visualisation of intangible service components stimulates and facilitates value delivery to customers, and creates competitive advantage. Branding allows marketers to add symbolic meaning to services (Sirianni et al., 2013). Yet, customers have the last word, and it is their decision what meaning will each brand take in their minds.

Aim of this paper is to present importance of developing strong brand image as support to achieving competitive advantage in service companies. Likewise, the paper presents case from the business market, about gaining customers' trust in service company brand based on development and use of applicative data warehouse "RSoft" that has been developed for overall monitoring in working process of service companies. Adequate usage of the software contributes to higher performances of process management, facilitates purchase process for the customers of service companies and builds image of responsible and reliable business partner that efficiently perform its business tasks.

IMPORTANCE OF BRAND DEVELOPMENT FOR SERVICE COMPANIES

First task of marketing oriented company is to satisfy needs and wants of its customers more efficiently than the competition. In order to achieve that goal, company need to have deep knowledge about its customers and developed system of monitoring their reactions in the market. Service companies build their image and brand position through every service encounter with customers. It is not an easy task, because in service providing exists many intangible elements whose quality and performances customers cannot evaluate with certain accuracy. Therefore, management task is to create positive relationship among all levels of service organisation hierarchy, in order to convey that positive effect on customers which would result in their increased satisfaction (Krasavčić, 2012). One research (Sirianni et al., 2013), has shown that everyday service encounters with the customers and personal communication among them are often more convincing in the creation of brand image in customers' minds than the impersonal sources of information such as promotion through mass media channels. Therefore same authors state that service encounters are one of the most influential elements in brand meaning communication with customers. Service company's brand develops as a result of customer satisfaction. Customer satisfaction is prerequisite for continuity in relationship with customers and their long term profitability for the company. Literature has many definitions of customer satisfaction. One of them states that satisfaction is customers' reaction to evaluation of difference between formulated expectations before the purchase process and actually received service performances after the purchase process (Veljković,

2009). It is emotional response that triggers customers' feeling of satisfaction or dissatisfaction with the provided service. Most of the authors state that the satisfaction is related to functional nature of service performance, and that loyalty is of emotional nature (Krasavčić, 2012). In service marketing customer satisfaction is being built on every segment of service that comes in contact with them. Number of intangible elements which are difficult for evaluation is much bigger than for the manufactured goods. Hence, careful approach is needed to organization and measuring the effects of these elements in order to prevent undesirable consequences and to make necessary corrections on time. It is generally accepted that satisfied customers are less price sensitive, less susceptible to influence of competitive offer and more loyal to the company (Nam et al., 2011). Because of that, it is necessary to determine perceptions and expectations of customers about the service, during the purchase process, and then to do everything to reach them and surpass. In other words, perception of customers should be managed through brand building, with both communicational and service performance efforts. Group of authors has shown that the main factors of creation of the customer satisfaction are quality of provided service and congruity of customer's self-perception with the brand promises (Nam et al., 2011).

Customer expectations are referent point for evaluating performances of delivered service. In other words they are perceptions about the service. Expectations are the result of customers' previous experiences with respective service company, but also with the service offer from competitors and other service companies from different service areas. Besides service encounters customers form their expectations on the base of promotional messages, word of mouth communication, image of a company and brand promises about future value of a service. During the process of expectations formation important stand points represent ideal service and acceptable service (Veljković, 2009). Margin between these stand points forms zone of tolerance. In this zone service company could expect customer satisfaction achievement, and opportunity to outperform activities of their competitors. Fulfilled or surpassed customers' expectations lead to long term relationship with company and customer loyalty. Customer loyalty in the service marketing represents their readiness to purchase the offer from one company, during the long period of time, with making recommendations to other customers (Grubor, 2011). For a long time it was thought that customer loyalty include exclusivity of purchase from just one service company. Nevertheless, realising affects of different external factors to purchasing decision making and customer behaviour, the literature accepted somewhat milder interpretation of loyalty (Bogomolova, 2010). Therefore, loyalty represents process of making purchases from one company during the long period of time with possibility of occasional purchases of same service type from competitors, depending on the external factors. Loyalty cannot be observed just from the customer satisfaction point of view, even though there exist strong connection between them. For example, customer could be loyal and satisfied with the service at the same time, but only to the point in time when other competitors achieve to meet customer's needs in more effective way. Also, customer satisfaction is subjected to the level of expectations which rises with the passage of time, or to weaker performances of service company (Veljković, 2009). Those are the reasons for the opinions that only extremely satisfied or delighted customers have potential to become loyal (Veljković, 2009).

In order to strengthen the positive feelings about service company and to assure customer loyalty it is necessary to develop company's brand image. Brand is one of the elements for creating positive perceptions and level of customer expectations from service companies. Brand is defined as name, term, design or symbol or shape, or their combination with aim to identify products or services and to differentiate them from the competition (Veljković, 2009). However, with development of markets, brand has become synonym for marking all dimensions of relationship development between customers and service companies. Branding is long term process whose aim is increasing customers' brand knowledge, acceptability for customers and sales increase (Marquardt et al., 2011). Strong brand symbolizes not only type of service, but the type of expected experience as well. Service companies use brand to visualize intangible elements of service offer to the customers in order to take the right place in customers' minds. From that point of view, brand can be observed as promise of combination of characteristics that someone is purchasing. Those characteristics makes brand to appear as real or illusive, emotional or rational, visible or invisible (Veljković,

2009). Service customers are faced with uncertainty of purchasing results, which occur because of intangible nature of services. Risk rate of making the wrong decision during the purchase increases with decrease of tangible elements of service offer. Therefore customers tend to rationalize decision making process. They base their attitudes on symbols that are provided by the brand and the image of company. Authors Dawar and Parker have identified five reasons for that behavioural pattern. Those are: desire for decreasing risk rate; lack of expertise in the field of provided services; low customer involvement in service delivering process; complexity of service experience which disables most of the customers to evaluate quality of service; need for additional information about the offer (Brady and Bourdeau, 2005).

Reputation is the element that has strong impact on experienced service quality. Brand name is one of the transferors of the reputation of service company. Service brands have many roles in the market performance. Some of the most important are the following: brand facilitates long term customer relationship development; facilitates recognisability and differentiate company from the competitors; presents barriers to market entry for companies that do not have developed strong brands; increases negotiating power of a company; decreases customers price sensibility; facilitates effects of communicational efforts; influence the connection between loyalty of employees, customer satisfaction and company's image (Veljković, 2009). The most significant factor of brand development, according to some researches, is differentiation of meaning and characteristics that brand symbolizes from competitive brands. As one author vividly says, differentiation is engine of brand train, if the engine is stopped, whole train is going to stop (Aaker, 2003). For many customers, competitive brands are almost identical, which relativizes objective quality of the service offer. If differentiation of brand is missing, customers will not have tangible sign for purchasing decision making of particular brand (Aaker, 2003). Considering such situation, and aggressiveness of competitors in imitating innovative ideas, solution may be in the branding of differences, not just the offer, which would make it unique. That would provide long term difference in customers' minds in comparison to other brands (Aaker, 2003). Branded difference could be characteristic of service, delivering program, or integral part of service product that has meaning for the customers. In such manner higher level of customers' interest for service would be created.

USAGE OF APPLICATIVE DATA WAREHOUSE "RSOFT" IN DEVELOPING BRAND AND GAINING COMPETITIVE ADVANTAGE

Organizational structure of service companies that provide maintenance of facilities and equipment is for the diversity of business requirements very complex, and parts of such companies are dislocated for the cost reduction. Business performance often requires engagement of different organizational parts of a service company, with high level of mutual cooperation. Monitoring of such performances, meeting deadlines, employee efficiency and provision of required documentation for financial parts of business are, therefore, utterly complicated tasks. On the other side, customers' expectations are increasingly higher for the accuracy of required data on delivered services, and for combined specifications and invoices which present data of engaging specialized parts of service company. One efficient way for solving these kind of difficulties is buying or developing specialized applicative data warehouses, in order to automate business processes of such companies.

Because of high prices of software packages that fully cover named area, it is often case that companies buy only parts or modules of software packages. For that reason some parts of business in service companies remain uncontrolled and therefore is more complicated to manage all service processes. In such circumstances, data processing is done manually, or some parts of service companies develop their own applicative software. RSoft is applicative software solution in the form of applicative data warehouse with created user interface which support simultaneous work of multiple users in the system. Application is developed by usage of software package MS-Access and programming language Visual Basic. Solution is developed for monitoring of realization of customer requests, and also for monitoring of business data about service company's efficiency in the field of maintenance of wide range of different facilities and equipment. Mentioned process is performed by concurrent work of employees

inside an internal LAN infrastructure, through collection of data containing information about costs of human and material resources used in different organizational parts of a company, that are engaged in service delivery. Application consists of front-end data warehouse which is installed on client side connected with another data warehouse which is located in the company's server facility. User application contains necessary tools for updating and browsing data on server. Regulation of permission rights in application is realized in accordance with unique user accounts of employees in the company, in such a way that employee can access application from any client station and perform tasks from his expertise. Application maintenance is done on daily basis through automatic data back-up. Application is currently used in one branch of a company Tehnički servisi d.o.o Zrenjanin, the subsidiary company of a company NIS a.d. Novi Sad, with 40 users in Novi Sad and Pančevo.

Basic elements data are interactively monitored, analysed and recorded are:

- Organizational chart of service company and employee deployment;
- Updating and collecting customer data;
- Data collection of signed agreements and offers with service company;
- Monitoring of realization of customer orders by service company;
- Development of technological processes and spare parts and monitoring of service performance;
- Provided services specification development and invoices development on a service company level or levels of individual organizational parts of a company;
- Efficiency analysis of employees in organizational parts of service company;

Organizational chart analysis is a first step towards reduction of risk rate of duplicating operational tasks and violation of due dates, and towards reduction of other organizational problems. This creates prerequisites for resource concentration in direction of creating customer satisfaction through high quality service delivery. Next step is collecting and updating customer data. This is the most important element of developing long term customer relationship. Application of CRM (Customer Relationship Management) concept, would result in long term profitability of service company based on precise allocation of available resources toward most profitable customers. Basis of acting of organizational parts are signed contracts and offers between service company and customers. Less complex business tasks are concluded with customers through offers. In contrast to that, complex business tasks are concluded through annual contracts that defines engagement conditions and financial resources. Data from both types of agreement with customers are collected within application RSoft, which enables further business organization.

Broj RN	Broj zahteva	Brzina Z	R	Datum R	Mesto troška	Nalogodavac	Ref zahteva	I	Datum I	P	Datum P	Ext
15421	5169344	13480			REFPAIP171	Odeljenje za specijalne sanacije i vibrodijagno	Maja Marjanović	✓	11-feb-2014 8:38	✓	11-feb-2014 10:06	✓
15423	5169343	13483			REFPAIP172	Odeljenje za specijalne sanacije i vibrodijagno	Maja Marjanović	✓	11-feb-2014 8:42	✓	11-feb-2014 10:06	✓
15424	5169342	13484			REFPAIP173	Odeljenje za specijalne sanacije i vibrodijagno	Maja Marjanović	✓	11-feb-2014 8:45	✓	11-feb-2014 10:05	✓
15425	5169345	13485			REFPAIP170	Odeljenje za specijalne sanacije i vibrodijagno	Maja Marjanović	✓	11-feb-2014 9:46	✓	11-feb-2014 10:05	✓
15426	5200845	13486			REFPAIP320	Odeljenje za specijalne sanacije i vibrodijagno	Maja Marjanović	✓	11-feb-2014 8:52	✓	11-feb-2014 10:05	✓

Figure 1: Overview of internal working orders in RSoft application

Provided information about capacity utilization enables rationalization of resource usage. These information increase efficiency and profitability of company in the long run. Advantages of applicative solution, customized for particular service company are manifold. Firstly, it could be used as a source of valuable information for further research and analysis toward optimization of work processes and organizational structure of a company. This is possible for the application records data about the flow of internal working orders and type of work that employees had done in different departments (see also Figure 1). The analysis could be manageable by selecting appropriate mathematical models and by setting relevant optimality criteria for the appropriate analysis. Based on the results of such an analysis, management could reorganize employees in more efficient way, and form some new organizational parts for achieving better efficiency of work.

Optimization of business processes in application RSoft could be done by using optimality criterion of minimizing engagement of engineering work force (especially technical) in the part of collecting and processing data. Constraints in optimization process would be available computational and human resources, requests of management and customers. By well-timed business analysis, based on relevant data, optimization process enables increase of work force utilization and efficiency of

the company. Use of this kind of internally developed software, contributes to effective coverage of all steps in realization of service offer. Such approach contributes to service quality increase which leads to delighted customers. It creates certainty during the purchase process, and develops service company's image as stable and reliable partner. Efficiency management in service delivering process, by implementation of presented software solution, result in differentiation of a company and achievement of competitive advantage.

CONCLUSION

Performance of service companies in the market is conditioned with both sharp competitiveness and service characteristics. Due to different factors that affect customers' service experience, and due to customers' inability to objectively comprehend quality and intangible elements of services, branding of a service company and service offer became one of the possibilities to visualize and create emotional experience of a service delivery. Importance of brand development in service companies is reflected in creating of customers' expectations and promises of a service that they could be provided with. By creating customers' expectations service companies could reach customer zone of tolerance with service delivery process, and in optimal situation achieve customer delight. Strong brand enables development of long term customer relationship, and increase of company's profitability. This paper presents applicative data warehouse RSoft, developed for use in service companies. That kind of software enables service companies to efficiently monitor every segment of service delivery process, in any phase. By usage of such software solution companies are able to send customized services to the customers, without occurrence of incidents and errors. Customers perceive such service companies as reliable, which improves their brand image and facilitates further business relations.

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DEVELOPMENT OF COMPETITIVENESS AND BUSINESS EXCELLENCE OF DOMESTIC ENTERPRISES

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ABSTRACT

Improving the business performance of companies provide greater competitive advantage and better market position in the international business, which contributes to the prosperity and the economy as a whole. Unenviable position of domestic enterprises in the international market imposes the need for changes in their ways of thinking and defining factors of improving business. The paper analyzes the key factors for the development of competitiveness and business excellence, as a way that domestic enterprises improve their performance in the market. The tendency of companies to achieve business excellence allows improving the quality of business, and therefore greater competitiveness, which opens the way to the international market.

Keywords: competition, factors of competitiveness, business excellence, quality, TQM concept.

INTRODUCTION

Competitiveness of an economy represents the level of success of its positioning inside global economy. The high level of competitiveness of the economy is necessary for its integration into the global mainstream. No economy can expect a long-term sustainable growth unless there is no growing export. Besides, the growth of competitiveness is a prerequisite for direct foreign investment, which with them, in addition to capital in-flow, brings a new technologies and knowledge as well as possibility of easier access to foreign markets.

To be competitive, in today's business environment, means ensuring continued growth and development. Competitiveness of an economy is defined by competitiveness of its business subjects, but also a business environment that it is prepared to offer. Companies, which manage to maintain growth of productivity and technological progress, are able to keep competitive advantage in the market. During past few years, there is slight, but steady growth of some economies, like China, India, Brazil, Turkey etc. Companies from these countries are becoming global competitors. Their competitiveness is based on lower operating costs, primarily due to lower labor costs, but also due to openness to create investments and the acceptance of modern management methods and techniques (Đorđević et al., 2011).

Inclusion of companies from transition countries into the global market economy imposes the need for radical strategic shift from problem-oriented towards systematic and innovative management style. It is a style that is focused on management of changes through continuous improvements and constant approach to goals of business excellence. Key elements that ensure the growth of the company and its market value are: learning from their own experience and from each other, improvements by leaps and breakthroughs, as well as innovations.

COMPETITIVENESS OF OUR ECONOMY

To be competitive means to be successful and to bring growth. Competitiveness of a company at micro level represents its ability to compete, to be market profitable, to position itself on market and therefore ensure prerequisites for its growth. At macro level, the competitiveness represents ability of a country to position its products on international market thus bringing the increase of nation living standard. The mutual dependence of these two dimensions of competitiveness indicates on fact that neither economy can be competitive without competitiveness of its economical subjects, nor they can be competitive without proper business environment.

Domestic companies have been, during last few years, in unenviable position on international market, while the effects of global economic crisis have further contributed to the weakening of their capabilities. Serbian products are lagging behind in competitive struggle due to lack in quality, high price, unattractive packaging as well as obsolete technology. Most of the undertaken measures were focused on decreasing of costs in function of maintaining of productivity, forming of strategic partnerships, but the emphasis has been set on price competitiveness issue as well.

Data received through research in domestic companies shows that the most important factors in competitiveness development are: new technologies, motivation of employees, education and financial support. As essential elements for development of domestic companies competitive ability are: standardization of business quality, application of modern management methods and techniques, investments into development of national brands and purchase of modern technological solutions.

To improve their competitiveness and business, domestic companies needs support from the state. In accordance with the recommendation of World Economical Forum for countries like ours, it is necessary to encourage entrepreneurship and to invest in personnel training. Small and medium companies are the most vital part of the economy and therefore represent the factor that should be a bearer of future economic development. Domestic companies does not use free trade potentials, and the reason for that lies in poorly made agreements or ignorance of company about offered benefits. The business of a company should be exposed to a healthy competition inside Balkan's free trade zone, so they can prepare for tougher competition on European and world market (Škunca, Ristić, 2011).

Economic growth and development of our country should be based on the promotion of export of goods and services. Therefore, it is necessary to provide compound of educated workers and modern technology, so the domestic companies can be enabled to offer more sophisticated products of higher quality. However, the potential offered by the market of EU member states as most significant trade partners of our country, is not fully exploited. The reasons for the insufficient export are: lack of export products, non-compliance with the production standards required by the EU market and the mismatch between our export offer and EU import demand.

KEY FACTORS OF DOMESTIC COMPANIES COMPETITIVENESS

By doing business on global level, the company provides growth if it uses best possibilities to:

- produce where the costs are lowest,
- sell where the prices are highest,
- develop products of high quality,
- develop itself in shortest possible time and
- spot the space on the market and use it (Heleta, 2010).

Business of domestic companies, as in national as well in global environment, faces many problems which are characteristic for countries in transition and which effects have negative influence on competitive ability of company.

Application of modern methods and techniques of management, learning based on the experience of others, innovation and flexibility are some of the guidelines for the successful operation of domestic companies. Key factors for achieving competitiveness are quality of knowledge. Implementation of the integrated management system represents the way to global market, and the improvement of productivity knowledge firm support for its realization. By improving its knowledge, the company creates a favourable environment for the implementation and successful management of quality system, which is certainly a prerequisite for the development of competitiveness in a global environment.

Market globalization and international competition requires that company to, if they want to survive and improve their market position, possess three key resources: financial resources, new technology and know-how. The key for improvement of business operations' quality, and hence their competitiveness, should be looked for in appropriate use and advancement of knowledge. Knowledge and education are the creators of the new competitiveness. Every individual and employee inside the company must continually perfect and improve his or her knowledge. Managers in domestic companies need to improve their knowledge in the field of management, firstly by adopting modern methods and techniques.

Competitiveness of domestic companies can be improved by implementation of quality management system, which represents such concept that leads company and runs it. The implementation of integrated management systems allow the companies to accommodate to the conditions of market and client's requests and other groups of interest, as well as to allow improvement of business performances. Application of integrated management systems represents one of key options in achieving competitive ability of domestic company in global environment. This concept allows short time necessary for achieving business excellence, thus creating conditions that companies from less developed countries, with full appreciation to demands imposed by international standards, can successfully do business on global market.

Intellectual capital is a key factor in initiating innovation. Knowledge, embodied in a numerous competencies, which include a range of skills, is crucial for defining the competitive position of the company. Strong need for specialized knowledge and skills is dominant characteristic of modern business. Therefore, in every company, professional trainings, consultancy support and professional education, as well as development of specific skills among managers and employees must have a significant place and role.

Although there are positive tendencies in the modernization of leadership in domestic companies, traditional types of leadership are still dominant. Leaders should become a key strategist with a clear vision of development, they have to reorganize the company in order to maintain and improve competitiveness, putting an emphasis on flexibility and adaptability. Further modernization of leadership should be provided by a greater level of employee's involvement in setting goals and making decisions, within their area of responsibility, as well as to facilitate the identification and nurturing leadership potential at all levels.

Development of competitiveness of domestic enterprises is certainly contributed by the development of an entrepreneurial culture, including: stimulation of individual motivation and creativity, motivation and rewarding of individual and team contributions, creation of mutual trust and credibility, creating a sense of belonging and partnership inside company.

Business of domestic enterprises must be based on application of management techniques which support the competitiveness, innovation and flexibility, as well as the continuous improvement of their employees' knowledge, especially executive management. Economic progress and development of our country requires the need for developing competitive knowledge-based economy, new technologies and innovations. Domestic companies must accept foreign experience from specific area of business, especially those that comes from global leaders, but also to take into account experiences of newly-industrialized countries (Đorđević et al., 2011).

QUALITY IN FUNCTION OF BUSINESS PERFORMANCE ADVANCEMENT

Achieving high-performance of company eludes respect and attributing high importance to key factors necessary for ensuring competitiveness. Continuous quality improvement is essential for successful business and improving competitive position. By improving the quality, the company achieves a greater differentiation in comparison to its rivals, by providing greater value in the eyes of customers. In addition, by eliminating defects and errors in manufacturing, the amount of waste is being reduced, efficiency increases and company's costs reduce, all followed by growth of profit. Quality is identified with customer's satisfaction and becomes the paradigm of competitiveness, achieved by tight cooperation and coordination among all employees.

The aim of modern company is improvement of all aspects which are related as on products or services itself, as well as on attractiveness, processes and organizational structure, all by implementation of TQM standard. TQM includes improvement of quality, performances, reliability, durability, service of product, organization of production as well as increase of company's efficiency by decreasing costs and increasing productivity (Antić, Stevanović, 2013).

ISO 9000 standard demands that necessary competences related to work of personnel, and which have influence on quality of the product, must be set. Increase of employee's capacities by education and training is a key instrument in change of an attitude or behavior of employees. Establishing a QMS has a change of organization's culture as an aftermath (Arsovski, Lazić, 2010).

At domestic companies, quality culture is still very low. Therefore, it is necessary to establish a culture that would support the TQM philosophy, followed by achieving operational excellence in business. In addition, our companies lack the teamwork and inter-functional coherence of activities in company's business.

Getting of ISO 9000 certificate for entering the EU market, without any essential changes in philosophy and way of doing business, would not have any influence for economic growth and development. Along with improving of quality, a deep and radical restructuring of the company must be carried out, which only in that case would contribute to achievement of significant results. Investing in improvement of quality is a prerequisite for the development of business, but also the condition of growth and development of economy as a whole (Bošković, Anđelković-Pešić, 2011).

STRIVING FOR ACHIEVING BUSINESS EXCELLENCE

In conditions of globalization and severe and harsh competition, the aim of every economy is to position its companies on best possible way. Improvement of company's performances represents the aim to be strived, because it leads to development of competitiveness of whole economy. The way for improvement the quality of operation and the application of TQM concept, as a mean for achieving business excellence, in domestic companies, surely should be searched for both in international experiences and in our practice. This is time consuming and hard work, which is carried out continuously by management and all employees. Investment in quality improvement is a long term process that needs to have economic justification.

Our country is among countries that yet have to develop "the model of business excellence". Therefore, it is necessary to develop TQM model, which would enable:

- help to companies in implementation of new quality concept,
- self-evaluation of achieved performances based on comparison to competition and best in the class,
- awarding a National Quality Award.

National Quality Award should encourage the improvement of the overall success of the company, and through them to promotion of following values: productivity, efficiency, quality of products

and services, protection of the environment. Quality awards has an aim to reward companies that have achieved excellence in quality management, resulting the formulation and implementation of future strategies aimed to improving the competitiveness of the economy as a whole. "Oscar of quality" is the national quality award which encourages the improvement of company's performance, and therefore the whole economy. Is a powerful motivation tool towards business excellence of company and it encourages creation of suitable environment for improving the quality of our country. The award was created after European Quality Award, which contributes that domestic companies have an option of their comparison with European companies, as well as insight into their relative positions during process of approaching European market (Pešalj, 2007).

Experiences of organization related to improvement of quality are presented as result of research performed during period from 2005. till 2010., with participation of 14 companies, all winners of National Quality Award "Oscar of quality" in category of large companies (over 250 employees) and small and medium companies (with less than 250 employees). The results of this research shows that special attention must be paid to management of human resources, respect of the principles of involvement of employees and increase of their motivation, responsibilities and creativity. In researched companies there is a clear vision and dedication of highest management level for application of quality management system, with clearly defined policy of quality and aims set on level of organization and its parts. A little attention is set to defying of single aims, tasks and responsibilities of each individual or team. Therefore, a conclusion that managers and workers are competent for assigned jobs and that organizations invest in improvement of their employees can be made. The results show that the products from surveyed companies uniform quality, which is very important for successful business. Organizations are dedicated to their customers and partners and are fully aware of importance of standard implementation. In these organizations the management fully understands the importance of business excellence model implementation, and "Oscar of quality" as tool for improvement of business. However, there are companies on our market which are not aware of significance of ISO 9001 standard implementation, nor the business excellence model. Also, in many organizations where quality standard are being implementing, executive management isn't interested in application of business excellence model (Ušćumlić, Babić, 2011).

CONCLUSION

In condition of modern business, survival, growth and development of a company is determined by level of improvement in business and competitiveness. Successful positioning of company on international market should be an aim of every economy. States should ensure a favourable business environment, so that companies be able to improve their business performances and quality of business itself.

The course of company's development should go from domestic toward national, from national towards international, from international towards global. An essential part of strategy of our country's development is inclusion into international economy mainstream, with special significance of neighbouring countries.

Domestic companies can improve their performances based on improvement of productivity of all key resources in business and existing level of innovations. Changes in the way of thinking and understanding of domestic companies management, represents one of key assumptions of successful market positioning. Innovations and knowledge development are some of key factors necessary for reconstruction of domestic economy. The essence and wellspring of competitive advantage is knowledge, quality and professional approach of people, which surely represents the framework of successful business. Striving towards improvement of quality and achieving of business excellence should be a road that our companies can take towards international market.

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TRANSITION CRM TO SCRM A Review of Literature and Business Practice

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ABSTRACT

CRM's traditional tools do not really provide the functionality to handle customer engagement in ways beneficial to the company but the addition of social functionality gives CRM a powerful new incarnation - Social CRM. It is Social CRM that provides the enterprises with what they need to intersect all this independent activity. In this paper, the authors provide a brief literature overview of the transition CRM to SCRM, with special emphasis on the consequential changes that, with the advent and mass usage of social media, are occurred in business strategies.

Key words: CRM, SCRM, business practice.

INTRODUCTION

Customer Relationship Management (CRM), over the past decade, has been the strategic approach that most companies had taken in trying to figure out how to supervise their customers' behavior, (Mendoza et al, 2006). Typically, it was via technology and processes and analytic algorithms that were tied to an often amorphous management strategy. Gathering data about the customer and tracking all customer transactions were the way that CRM was used to ascertain the individual customer's thinking. Hopefully, the insight it provided about the customer and the effectiveness of the processes put into place led to some kind of increased level of purchasing or decreased costs, (Zablah et al., 2004). Additionally, CRM was and is used for making some sales and service processes more effective and for sales and service management tracking the customer facing activities ranging from qualifying a lead to closing a deal to servicing an order to solving an issue, (Chen and Popovich, 2003).

TRADITIONAL CRM

Definitions about traditional CRM are abundant but researchers believed that: "CRM is a philosophy and a strategy supported by a system and a technology, designed to improve human interactions in a business environment" (Mendoza et al, 2006). Traditional CRM was an operational-transactional approach to customer management that was focused around the customer facing departments, sales, marketing and customer service. Typically, the objectives for traditional CRM might be narrowed on increases in revenue or profitability, an increase in selling time, or campaign effectiveness, improved use of a sales process, or if you are into customer service in particular, reduction in call queuing time, (Chen and Popovich, 2003).

Based on Meta group definition (Greenberg, 2004) which is one of the most referable definition of CRM three main parts of CRM are as below:

- Operational CRM which is defined as automation in processes which are related to customers and are divided as follow:
 - Marketing automation
 - Sales automation
 - Customer services
- Collaborative CRM which includes all of the channels and ways that customers communicate with company like e-mail, fax, web site, call centers and so forth.
- Analytical CRM which includes Data Marts, Data warehouses, Customer data bases and other customer information systems. This data and information are analyzed by different algorithms and techniques like data mining and other methods for producing usable information and knowledge for having appropriate insight about customers and therefore creating proper strategy about customers.

RISING OF THE SCRM

Since 2003, the impact of the social communications makeover has shifted ownership of the customer/company relationship to control in the hands of the customer (Mosadegh and Behboudi, 2011). This has resulted in changes how businesses must respond to that customer. Discussions of the value of the company moved outside the company's walls to the enclaves of the customer who publicly chatted about the company without participation of the company in any way. The customer's conversations were no longer in control of any company.

Social networks are nodes of individuals, groups, organizations, and related systems that tie in one or more types of interdependencies: these include shared values, visions, and ideas; social contacts; kinship; conflict; financial exchanges; trade; joint membership in organizations; and group participation in events, among numerous other aspects of human relationships.

If this were 2003, you could easily make the case that the enterprise has already owned the customer experience. The company remained the center of the business ecosystem. But in 2005, something changed. That year, in contrast to 2003, "a person like me" rose to 56% of the respondents - taking a dramatic leap into a more dramatic lead as the most trusted source (Greenberg, 2009). Outside experts and corporate leaders fell precipitously - people who had similar ideas and interests adhered to each other in ways that created what is now an unshakeable bond (Maoz et al., 2009). The velocity of social media adoption is astounding:

- As of December 2013, Facebook had in average more then 750 million daily active users. Global penetration is deep, with more than 80 percent of daily active users residing outside the United States and Canada.
- At the end of 2013, LinkedIn had 277 million members in over 200 countries and territories.
- Also, at the end of 2013, Twitter had over 645 million active registered users and 58 million average tweets per day (9,100 per second).

Unlike other communication mediums, social networking sites not only provide the ability for users to communicate with each other but also enable users to find like-minded individuals. Once they discover each other, members can form ad hoc communities based on their mutual interests. Multiplied many times over, these individuals become the new power behind the old saying, "power of the masses". Thus social networking sites help shift power from the company to the consumer as the masses are able to channel and exert their influence, (Greenberg, 2009; Wu et al., 2009). It is all about connecting and engaging in new ways with customers. Customers using social networks want meaningful engagement with companies and businesses want a way to manage and measure their forays in social networking. When social networks and CRM work together well, businesses gain the ability to better listen to customer conversations and engage social customers

on their own terms while managing and measuring their efforts to do so. Social networks, by bringing in otherwise untapped and unmanaged online conversations, also help organizations get closer to a true 360-degree view of the customer so they can further optimize their marketing, sales, and customer service efforts, (Maoz et al., 2009; McKay, 2009).

Social CRM's customer strategy and associated business models are those defined by customer engagement, not customer management. Social CRM, that often is called CRM 2.0, grew from the changes in the empowerment of the customer. What it means is that each customer has the products, tools, services, and experiences he or she needs to sculpt an individual interactive relationship with the company in a way that satisfies each of their personal agendas. It means that the company is willing to be transparent enough and honest enough (goes by the term "authentic" nowadays) to be trusted by that customer. So the company becomes a "company like me", (Greenberg, 2009; McKay, 2009). The comparison of features and functions of CRM and SCRM is given in Table 1 (see next page).

The need for a revamped CRM, Social CRM, implies the existence of a fundamentally different customer paradigm. The combination of social networking and CRM provides an enormous opportunity to enrich customer interactions and give businesses a way to manage and measure how they use social networking while successfully engaging social customers, (Maoz et al., 2009; Wu et al., 2009). There are some basic strategies that can help organizations better leverage social networking as part of their overall customer management strategy:

- **Treat social networking as a new channel within CRM.** Many companies already use CRM solutions to manage customers, contacts, interactions, and communications, so it makes sense to continue to use customer management tools when these activities move into social networking channels.
- **Enhance and extend CRM through social networking.** While social networking activities can be considered as an additional channel in CRM, they also extend and enhance the capabilities of CRM with new ways of engaging customers and managing conversations.
- **Play to the strengths of both CRM and social networks.** Use CRM and social networking sites together to better listen to customers, analyze information, and respond to customers in a way that is meaningful to them.

BUSINESS AND SCRM – THE IBM 2010 CEO STUDY

According to the IBM 2010 CEO (Chief Executive Officers) study (Heller Baird and Parasnis, 2011), getting closer to customers is the overwhelming top priority for CEOs. It's no wonder then that the pressure to exploit social media is so fierce. It is ideally suited for customer collaboration and offers opportunities for reach, access and immediacy that simply don't exist with other channels. By the end of 2010, nearly 80 percent of the companies we surveyed, anxious to interact with customers where they are congregating virtually, had a presence on a social networking site and were aggressively launching social media initiatives. But do companies have the strategies needed to make these efforts flourish?

Table 1: Comparison of features and functions of CRM and SCRM

Traditional CRM Features/Functions	Social CRM Features/Functions
Definition: CRM is a philosophy and a business strategy, supported by a system and a technology, designed to improve human interactions in a business environment. (Greenberg, 2004)	Definition: Social CRM is a philosophy and a business strategy, supported by a system and a technology, designed to engage the customer in a collaborative interaction that provides mutually beneficial value in a trusted and transparent business environment. (Greenberg, 2004; 2009)
Tactical and operational: Customer strategy is part of corporate Strategy.	Strategic: Customer strategy IS corporate strategy.
Relationship between the company and the customer was seen as enterprise managing customer - parent to child to a large extent.	Relationship between the company and the customer are seen as a collaborative effort. And yet, the company must still be an enterprise in all other aspects.
Focus on Company \leftrightarrow Customer Relationship.	Focus on all iterations of the relationships (among company, business partners, customers) and specifically focus on identifying, engaging and enabling the "influential" nodes
The company seeks to lead and shape customer opinions about products, services, and the company customer relationship.	The customer is seen as a partner from the beginning in the development and improvement of products, services, and the company-customer relationship.
Business focus on products and services that satisfy customers	Business focus on environments & experiences that engage customer.
Customer facing features - sales, marketing & support.	Customer facing both features and the people who's in charge of developing and delivering those features.
Marketing focused on processes that sent improved, targeted, highly specific corporate messages to customer.	Marketing focused on building relationship with customer - engaging customer in activity and discussion, observing and re-directing conversations and activities among customers.
Intellectual Property protected with all legal might available.	Intellectual property created and owned together with the customer, partner, supplier, problem solver.
Insights and effectiveness were optimally achieved by the single view of the customer (data) across all channels by those who needed to know. Based on "complete" customer record and data integration.	Insights are a considerably more dynamic issue and are based on 1) customer data 2) customer personal profiles on the web and the social characteristics associated with them 3) customer participation in the activity acquisition of those insights.
Resided in a customer-focused business ecosystem.	Resides in a customer ecosystem
Tools are associated with automating Functions.	Integrates social media tools into apps/services: blogs, wikis, podcasts, social networking tools, content sharing tools, user communities.

Source: CRM 2.0 Wiki, from: <http://crm20.pbworks.com/>

To gauge companies' current Social CRM progression and their ability to provide the value customers seek in a social platform, the IBM Institute for Business Value conducted two online surveys. One went to 351 executives from functions where the responsibility for social media typically resides. The other was issued to more than 1,000 consumers to shed light on why they engage with businesses and how these interactions affect their feelings of brand loyalty. According to this survey, while the majority of companies have many elements of a social media program, progress toward an integrated Social CRM strategy is not linear, the challenges are deep and uncertainty abounds. The main findings indicated the following:

- There's no turning back. Nearly two thirds of executives say it fundamentally is going to change the way they do business – the social media footprint has grown rapidly, but there is still much more companies can do to fully exploit the benefits social media offers.

- Most companies have some elements of a social media program but struggle with integrated execution of an overarching Social CRM strategy. Social media initiatives have sprouted up organically across the enterprise, but the key characteristics of a Social CRM strategy – executive sponsorship, integrated cross functional governance, consolidated guidelines and policies, and sharing of customer insights to enhance innovation (from structured and unstructured data) – exist in varying degrees. Only about a third assertively report these elements are in place.
- Social media challenges vary widely, but concern over ROI (Return On Investment) and mitigating risk top the list. Sixty percent of companies attempt to track ROI to some degree, but there is no consensus on a standard approach. Applying analytics can help, but only about a third of executives believe they do it well. Despite fears of negative brand exposure, fewer than half monitor their brand, and only 53 percent offer social media training to employees.

Companies are mirroring consumers’ stampede to social networking sites, such as Facebook, LinkedIn, Orkut and QQ. Seventy-nine percent of companies surveyed have accounts on these sites. More than half use media sharing sites, such as YouTube, Flickr and SlideShare, and micro blogging sites, such as Twitter, Jaiku and Tumblr (Figure 1). A small but notable percentage of executives weren’t sure if their company had a profile on a specific site type, suggesting that the use of social media isn’t always a top-down directive, visible across the enterprise. Further, 74% of companies report using social media to communicate with customers, 65% use it to respond to customer questions, and 60% are promoting events with social media (Figure 2 – see next page).

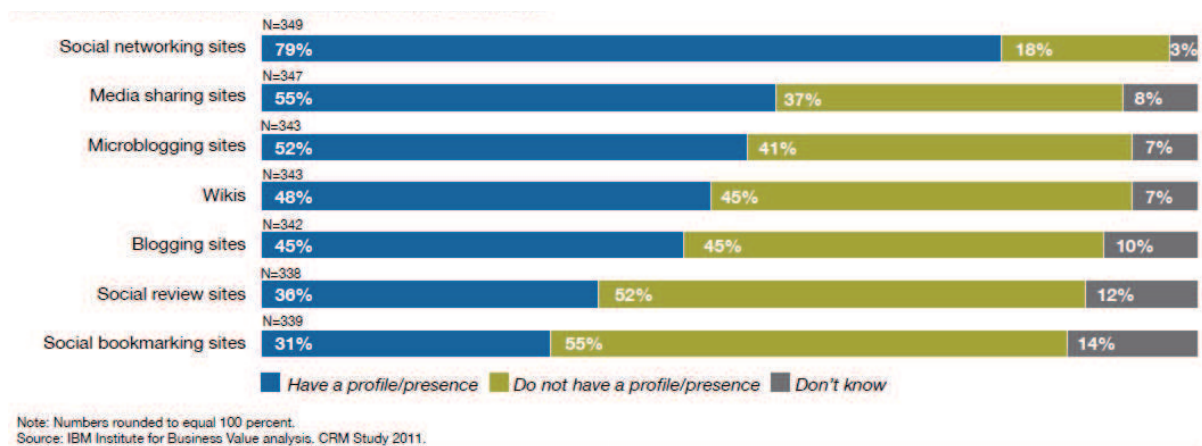
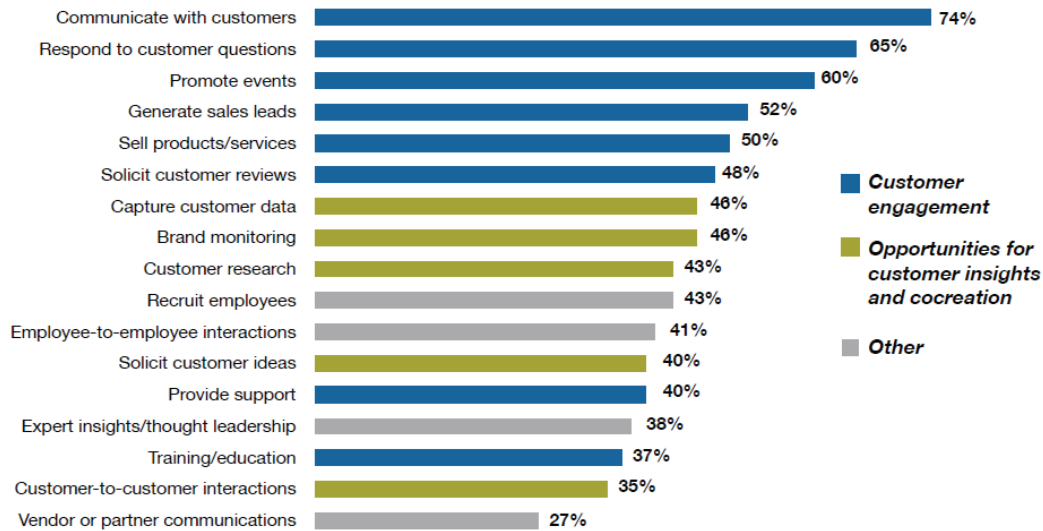


Figure 1: Tendency among companies to use social networking sites

CONCLUSIONS

Social CRM is not substitute for traditional CRM - it extends traditional CRM. Businesses still need to use technology, run processes, develop operational strategies, apply business rules, assign roles and responsibilities for those roles and develop the appropriate routing and workflow for their particular efforts. Social CRM takes that traditional CRM set of functions and capabilities applicable to sales, marketing and customer support and services and extends it by integrating the social tools for communication with the customers and to allow you to capture even richer knowledge of that particular customer or that deal opportunity. This additional capability not only provides the means to deeper customer insights but allows the customer to participate in the life of the company in ways that are mutually beneficial.

What is your company doing with social media today?



Notes: N=351. Not shown in figure: "I don't know" = 9 percent and "Others" = 2 percent.
Source: IBM Institute for Business Value analysis. CRM Study 2011.

Figure 2: The purpose of social media among companies

The implications of using SCRM for business are potentially significant. The shift to Social CRM is more than an adoption of new operational models or technologies; it is a philosophical, cultural shift. Social CRM is a strategy for stewardship of the customer relationship, not management. This transition is still in the early stages for many who are experiencing the growing pains of rapid change. The fundamental precept is that the customer is now in control of the relationship. The sooner companies embrace this precept the sooner they can exploit this shift and unlock the full potential social media holds.

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THE ANALYSIS OF KEY FACTORS OF COMPETITIVENESS OF SERBIAN ENTERPRISES

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ABSTRACT

New competitive conditions require new approaches in the field of organizational management and development of competitiveness. Standards and the best practices are the way to excellence, but in the long term. Serbian companies have had a problem with the competitive ability in international level for many years. Insufficient investment in quality has resulted in extremely poor competitive position of the domestic economy. To make local companies become competitive at the international level, it is necessary to alter the ways of thinking and adopt modern world achievements in the field of organizational management.

Key words: competitiveness, global market, management, innovation, quality, productivity, knowledge.

INTRODUCTION

Global competitiveness is becoming increasingly intensive, noticeable and offensive. The current moment of global economy can be marked by slow but sure rise of enterprises from newly industrialized countries, such as China, India, Brazil, South Africa, Turkey, etc. Enterprises from these countries are becoming global competitors. Their competitive ability is based on lower business costs, first of all because of lower labour costs, but also for their readiness to accept foreign investments and the most modern methods and management techniques. The main stimulus for these economies is increased domestic consumption as well as a numerous young population. The latter represents an advantage not only concerning education but everything else as well – as the income rises, people become more educated and they change their preferences.

The world economic crisis and its long lasting effects emphasize the need for permanent improvement of knowledge – in recent years only the best, no matter where they come from, can win. The winners are usually the companies which have performed optimization between the price and the quality on the grounds of reducing costs and permanent productivity increase by applying standardized QM concept and intensive innovativeness. Chinese and Indian companies are such examples. This implies the necessity for developing new business models aimed at establishing competitiveness on the global market. When it comes to the competitiveness of domestic enterprises we have to say that it is at a very low level. Insufficient applications of knowledge, low technological level of enterprises, unproductivity and inefficiency are just part of the problem that domestic companies face.

COMPETITIVENESS AND GLOBAL MARKET

The competitive ability of a company in the modern business conditions is hard to achieve and easy to lose. The reason for this attitude is the fact that the rapid technological advances enabled the

technology to become available to everyone in the world under reasonable terms. In addition, the global economic crisis has highlighted the fact that it is necessary to create new business models. The challenges which follow establishing, keeping and developing competitive abilities on the global market are much greater today than 20 years ago. The following reasons are considered to be crucial:

- New companies are mostly based on services,
- New companies are mostly from the field of knowledge economy,
- The change of techno-economic paradigm causes considerable changes,
- The number of allowed mistakes is far smaller than before,
- The new paradigm is, in great extent, in the phase of pre-standardization, which makes choosing the winners impossible, (Reinert 2010).

In modern business conditions the following business functions with the strategic role are particularly emphasized in organizational management because of their market orientation: marketing, quality, research and development, (Đorđević and Čočkaló, 2007). The company's growth, development and success are determined by tight interdependence of these three functions and their synergistic effect.

Business excellence implies that businesses constantly work on the implementation of quality of business organizations based on the increase in productivity and skills of each employee. Business excellence is the development of market economy, with the user in focus of the organization, permanent improvement operations based on knowledge and productivity of labor and business in line with the requirements of the various interest groups in the region.

Countries that are competitive are also the countries where the awareness of the need for continuous quality improvement of business has been developed for many years. Industrialized countries of the world such as China, India and Brazil are putting great efforts in spreading the concept of sacrificing business practices in order to create conditions for improving the competitiveness of its economy.

Table 1: Ranking of the top 10 countries in the world according to the competitiveness from 2013

Country	Rank in 2013-2014	Rank in 2012-2013
Switzerland	1	1
Singapore	2	2
Finland	3	3
Germany	4	6
USA	5	7
Sweden	6	4
Hong Kong	7	9
Netherlands	8	5
Japan	9	10
Great Britain	10	8

The Global Competitiveness Report 2013-2014, (2013,) World Economic Forum, 2013, pp. 15.
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

THE ANALYSIS OF THE KEY FACTORS OF COMPETITIVENESS OF DOMESTIC ENTERPRISES

Since the early 1980s domestic economy has had problems with improving quality and productivity. The productivity problem did not appear in domestic economy only in the time of transition but it was present before, as well, (Đorđević at all, 2012). These problems were the result of inappropriate business performance which was not based on market principles. Certain products had unjustifiably high prices which were not competitive on the world market. Therefore, Serbian companies reduced export prices in order to gain competitiveness on the world market, while

domestic customers had to pay this cost of unproductiveness through high prices. Old technology, poor quality, unattractive packaging and high prices are thus the main reasons for uncompetitive appearance of Serbian products on international market.

Technological equipment also represents a significant element of productivity rising. The average machine age in Serbia is about 30 years. Compared to the situation in the region, this represents the approximate 12-year obsolescence. Serbian economy is, technologically, 29.5 years behind European Union, which was confirmed on the representative sample of 154 small, medium and big companies within six economical branches with similar production programs. The comparison was carried out in textile, food-processing, pharmaceutical, machinery, chemical and building material industries. Austria was taken as a criterion because of its similar natural, social and demographical characteristics in relation to Serbia (Serbian chamber of commerce, 2012). The greatest obsolescence was noticed in textile companies (35 years), then in machine industry (34.5 years). Pharmaceutical companies were best ranked with 21 years' delay. Considering the regions, the equipment, tools and other production means are most obsolete in south Serbia (41 years) and the least in Backa (18.5 years' delay). In Belgrade the delay is 20.5 years. The most productive companies are those with the equipment and machines of the highest quality. These are pharmaceutical companies, some companies from the field of food processing and companies with foreign capital, which is totally 8.5 to 9% of the whole Serbian industry. Metal industry is in the worst situation, with 35 year- old- machines in average, and reject of 36%, which is more than double compared to the average in EU countries.

According to the list of the World Economic Forum for 2013, Serbia ranked 101st place out of 148 countries that were analyzed. Serbia was on the 95th place on the list in 2011 and in 2012 which means that there is movement in competitiveness, but in a negative sense. An interesting fact is that this year, Serbia found itself in the company of Algeria (100th place) and Guyana (102nd place). Our last year "neighbors", also significantly modified their status - Argentina is "down" to 10 seats (now at 104), whereas Greece moved up five places (now 91st). Table 4 provides a ranking of the countries of the Western Balkans in 2009-2013. Only Serbia and Slovenia were down on the list.

Table 2: Ranking of the country of the Western Balkans towards competitiveness in 2009-2013

Country	Rank in 2009.	Rank in 2010.	Rank in 2011.	Rank in 2012.	Rank in 2013.
Slovenia	37	45	57	56	62
Montenegro	62	48	60	72	67
Croatia	72	77	76	81	75
Macedonia	84	79	79	80	74
Serbia	93	96	95	95	101
BiH	109	102	100	88	87

The Global Competitiveness Report 2013-2014, The Global Competitiveness Report 2012-2013, The Global Competitiveness Report 2011-2012, The Global Competitiveness Report 2010-2011, The Global Competitiveness Report 2009-2010., World Economic Forum, 2013.

Among the countries in the close environment, Hungary is on the 63rd place, Bulgaria is located on 57th place, Romania is located on the 76th place, Greece, as already mentioned, is located on the 91st place and Albania is on the 95th place. As can be seen from Table 4, Serbia has had a problem with global competitiveness in the last five years, and it was particularly present in 2013 - Serbia has the worse position in relation to all countries, not only in the Western Balkans, but also in closer environment of southeastern Europe.

Table 3 provides a ranking of the countries of the Western Balkans towards competitiveness indicators. The basic requirements of competitiveness of the country consists of the following indicators - institutions, infrastructure, macroeconomic environment, health and primary education, higher education and training, goods market efficiency, labor market efficiency, the efficiency of capital markets, technological capacity and market size. As can be seen, Serbia is slightly better when it comes to business efficiency, than when it comes to innovation.

Table 3: Ranking of the Western Balkan countries to indicators of competitiveness in 2013

Country	Rank in 2013. In sum	Rank to primary requirements	Ranking by business efficiency	Ranking by innovation
Slovenia	62	37	62	49
Montenegro	67	68	72	70
Croatia	75	61	68	80
Macedonia	74	70	76	94
Serbia	101	106	92	125
BiH	87	87	89	89

Source: *The Global Competitiveness Report 2013-2014*, (2013,) World Economic Forum, 2013.

According to the World Economic Forum, all countries in the world are divided into five groups. The first group consists of countries with its economy based on resources and it consists of 38 countries. The third group comprises countries whose economies are based on the development of business efficiency (this group consists of 31 countries) and the fifth group consists of countries whose economies are based on the application and development of innovative activities (this group consists of 37 countries). Second group consists of countries in transition from the first to the third group (this group has 20 countries) and the fourth group consists of countries in transition countries from the third to the fifth group of countries (in this group consists of 22 countries). Serbia is located in the third group of countries (the economy keeping efficiency), together with Montenegro, Romania, Bulgaria, Macedonia, Bosnia, Albania, Indonesia, Chile, and so on. Croatia is in the fourth group (transition from efficiency to innovation), while Slovenia is located beside the fifth group countries that stem (economy driving innovation and sophistication). The fifth group consists of mainly the most developed countries of the world.

The World Economic Forum provides an analysis in the field of sustainable development, from the aspect of social sustainability and viability of protection of environment (Table 4 for the Western Balkan countries). The main pillars of the social indices of sustainable development are: income, youth unemployment, access to sanitation, access to potable water, approach to health services, social welfare, participation of underground economy in the economy, social mobility, the overall unemployment rate. The main pillars of the index in Accounting for just protecting the environment includes: the power of legislation, the protection of land, the number of ratified international protocols and agreements, the availability of water for agriculture, emission exposure to carbon dioxide ratio for fishing, the concentration of particles in the air quality of the environment.

Table 4: Ranking the Western Balkan countries by factor analysis of sustainable development in 2013

Country	Ranking by social sustainability	Ranking by sustainability in the field of environment	Change in relation to previous period
Slovenia	4,68	4,60	Slight increase
Montenegro	4,13	4,13	Stagnation
Croatia	4,09	4,13	Stagnation
Macedonia	3,99	3,83	Stagnation
Serbia	3,58	3,74	Stagnation
BiH	3,66	3,44	Slight decrease

Source: *The Global Competitiveness Report 2013-2014*, (2013,) World Economic Forum, 2013.

CONCLUSION

Competitive advantage cannot be achieved as it could have been before the crisis in 2008. The world economic crisis has changed business conditions, which is particularly related to resource management and market competitiveness. A lot of factors contribute to forming the strategically insertion, but the three represent a particularly interesting threat to a well-timed renewal. The first one is the leading teams' tendency to disclaim or ignore the urge to restart the strategy. The second one is the lack of convincing alternatives to the unchanged state. The third one is the allocation rigidity, which complicates talent placement and regrouping behind the new initiatives.

Innovations, flexibility and productivity are guidelines for the future development in the field of competitiveness and organizational management. The very essence of the struggle for competitiveness lies in accepting changes. Knowledge is the main driving force of permanent productivity growth in the companies from these countries. Companies from transitional countries are faced with numerous problems – among them the most important are those related to improving knowledge and organization. Economic progress and development of Republic of Serbia require creation and development of competitive economy based on knowledge, new technologies and innovations, as well as on overall implementation of integrated management systems.

To achieve commercial success of the company it needs to have a competitive advantage in the form of lower costs and / or product differentiation, with a long-term strategy of providing products and services of high quality and continuous innovation. The main problem is the lack of competitiveness of domestic enterprises, which occurs as a result of poor productivity performance and the lack of implementation of new technologies and knowledge and inadequate application of the concept of quality management. Every business organization must become aware of the fact that the only way to establish and develop competitive capabilities constantly improving sacrificing performance and achievement of the objectives of operational excellence. Among domestic enterprises there has not yet been developed the awareness of the importance of applying business excellence model for their business. The first step in this process is the implementation of a quality management system by ISO 9001 standard requirements and Development integrated management systems.

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SOCIAL MEDIA AS A TOOL OF MODERN MARKETING

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ABSTRACT

This paper defines the social media, its main types and benefits. This specific type of the internet media is the latest trend in modern marketing that will dramatically change the way that companies present themselves on the market. When companies want to work with social media, they need to know that they made a step after there is no turning back. It requires constant education, monitoring trends and examples from practice to be up-to-date. If companies properly utilize social media tools, they can contribute it to improving sales, reducing costs and increasing reputation of a particular company. Some of the most important tools of social media available to the company for marketing purposes are social networks, content communities, social bookmarking, blogs and forums. These tools are described in the paper, because of their importance. Importance of social media is increasing each year and we can expect that they will be used for marketing purposes during this and the next decade.

Key words: social media, modern marketing, social networks, advertising.

INTRODUCTION

In modern society social media can be adapt in every area of life. From the marketing, that is most important, through public relations, branding, promotions, reputation on the internet, communications, politics and personal promotion. The original term "social media", according to Andras Kaplan and Michael Haenlein (2010), describes a group of social-based applications on the internet that is based on Web 2.0 principle and which allow the creation and sharing of content by users. From this definition, we can conclude that social media is actually a part of the internet media as a broader concept and that is characterized by the fact that users are able to participate in the content creating and exchanging of ideas. According to theories and researches in the field of media, Kaplan and Haenlein made the classification of social media defined on social networks, content sharing sites, social bookmarking, blogs, educational interactive website and virtual worlds. This classification is the most common in the literature. Today is very easy to follow news about the competition, brands or products through these new media, but marketing is still mostly performed by older electronic media such as TV, radio, and print media such as newspapers. This media are usually very subjective and social media breaks the "untouchable" part of it, by providing the space and the ability of users to create content and express their opinions, which is very important. The most part of internet users almost daily use social media. This is reason that conventional marketing increasingly grows into internet marketing and the whole thing takes on a new dimension. As the users became creators of content and got a chance to react to a product or service, a large number of firms and companies started their business on internet. It is almost inconceivable that a person engaged in the marketing, media, communications or public relations is not present on social media. Also, many companies when they want to hire workers take into consideration the entire Web history, and especially presence on social media. This could be justified by the fact that they actually build their own social profile and reputation on social networks, as one form of social media. The rest of the text refers to benefits and impact of social media, as well on detailed analysis of the above-mentioned types of social media that are important to marketers.

ADVANTAGES AND IMPACT OF SOCIAL MEDIA

The concept of social media is often equated with the concept of internet media, but as it was explained internet media is a broader concept. The internet media include Web sites, but many of them do not have this interactive feature or communication between the person in charge of maintenance the site and the user, that is the most important feature of social media. Web site of Frikom company can serve as an example (<http://www.frikom.rs/rs>) that has an excellent informative content which says a lot about their products, while it do not have interactive character. Exchange processes in the information age are increasingly initiated and controlled by customers. Even when marketers engage in a process of exchange, the customers are the ones who define the rules of cooperation (Kotler, Keller 2006). Therefore, it is important to establish a good interaction between customers and sellers. Interactive marketing offers a lot of unique benefits. It has a high degree of reliability and its effects can be monitored (Kotler, Keller 2006).

Free advertising is the most significant advantage of social media. Good promotional videos are very expensive and by using social media we can save a large part of financial resources, while at the same time the right target group of customers obtains information about a particular product. On the other hand, the sales channel is available all day and every day. Another advantage is that it is very easy to obtain information about consumer habits through various activities such as conversion ratio of specific campaigns, conversation on the sites that represents products to the customers... Social media also provides credibility, recognition of the company and employees as experts and people of faith. At any time it can develop unexpected sales channels and sales can be run everywhere, based on the networks as a new discovery. We can determine the effectiveness of presence in social media using these indicators (Solis, 2010):

1. Return on engagement - duration of time that is spent in conversation or interacting with social structures and in turn, what happened there (but it's worth measurements)
2. Return on participation - measurement and assessment of time spent in participating in social media through conversations or the creation of social media
3. Return on involvement – marketer explores point for documenting, the state of interaction, bound measures and the potential return of each one
4. Return on attention - in the attention economy we can evaluate ways to capture attention, hold it, and measure the responses
5. Return on trust – this is option for measuring customer loyalty and the possibility of recommendations; trust barometer establishes the state of trust that is earned by participation in social media, the potential to generate lobbying and how it affects on future business

Good communication improves your online reputation or the reputation among the customers on the Web, which can also be an advantage if you use it wisely. Creating a reputation is a long process and it comes by the hard way, while it can be easily lost. The main task of PR and marketing is to create a positive image of the company or individual person in public. Communication and education via blog, social media accounts etc. are integral activities in creating and maintaining a reputation. These two activities are closely related, and the best way is to combine them. Brian Solis in his book "Engage", says that social media means more to people and that it is more than technology. It is social renaissance that has been caused by a unique and vibrant ecosystem, supported by impending culture and way of life (Solis 2010). It also represents the democratization of information, transforming people from content readers into publishers. Therefore, social media changes transmission of content from "one to all" in "all to all", rooted in conversations between authors, people and members. A recent future should be reflect in the "geo-targeting" which is still in the initial stage, but it is quite attractive and popular. It works by making a satellite registers a location that is marked on the service map and the information is published automatically to other customers / friends. Examples of such services are "Gowalla" and "4square" (Pajić, 2010). This concept will be very attractive for marketing. Any company that would like to have a presence and business over the internet should think about employment of such employees. Proof that this is a reality is emerging ads for this type of job. "Social Media Manager" or "Digital Account Director" is some of the modern profile that will have a big demand, which means that

social media is involved in the recruitment of new staff and it will affect indirectly the better standard of living. Social media in Serbia is very popular among young people who have good technological literacy. According to the study conducted by the company Visa, young people are actively planning their future and they need to be informed. From this study it was concluded that 46 percent of young people in Serbia are using social networks and other forms of social media, 39 percent use them occasionally, while only 15 percent do not use any form of social media.

THE MOST POPULAR TYPES OF SOCIAL MEDIA USED IN MARKETING

Social Networks

The term “social network” is granted by the fact that it connects people around the world with similar interests in a large global network. Word “social” is because they emphasize socializing and interaction among the users. The positive thing about this category is that media users can create, share and react to the content and this is very tempting and the most profitable form from the marketing point of view. Social networks are very simple and most importantly free to use. They are used by large number of people and companies, it's almost become a rule that if you are not present on the social networks - you does not exist. Also, they can very easily connect one with other, which is important for companies that plan performance on multiple social networks. The most important social networks in the world and Serbia are Facebook, Twitter and LinkedIn.

Facebook is the biggest social network in the world (Eldon, 2008). If it is used properly, Facebook can be a powerful promotional tool and today it is successfully used by marketers, PR managers, agencies, companies... If you want to sell or promote something on this network it is essential that your publication is seen by authentic target group of people. Serbia has 2,029,260 outstanding accounts on this network, the highest number of population in the region. According to the number of users in relation to the population, Serbia is at 17 place in Europe, according to a survey AdriaTalk.com blog. Facebook offers a various tools that marketers can use. Facebook profile is usually used by individuals, who create it for personal, social and very often for promotional reasons. On the other hand, a Facebook group can bring together people around the one idea or phrase. Its advantage is that you can easily send mass calls for inclusion and one of the major drawbacks is that when the group exceeds 5,000 members administrators lose the right to control the group (Pavlović, 2010). Fan pages are one of the most useful tools for marketing purposes. The word "fan" is automatically associated with some brand or celebrity. The site administrator must be a good animator who will give interesting content to potential customers. There is another variant of the promotion on Facebook and that is the paid advertisement. This is an ad that appears on the right side of the screen and that is mainly aimed at a specific audience. Facebook automatically recognizes information about the interests of potential customers and connects them with ads that are designed for people who have exactly those interests. This principle is very economical for a company that advertises paid ad only when someone clicks on it and it is called a model PPC (pay per click). Unlike PPC there is the method CPM (Cost Per Thousand Impressions), where you can pay a certain amount by the number of people who saw the ad. Domestic company "Social Media Hub" has developed an interesting product "ManageFB". It is the application that should help the quality leadership of business profiles on the social network and that is likely to become the ultimate "control panel" to administer the Facebook page. This application offers a far easier, simpler and better manage business FB pages (profiles). Basics of the "ManageFB" application are sets of tools necessary for market research, tracking user interest, visiting sites with similar products and the comparison with the same sites in the region and the world. This clearly indicates that this is a very complex product ready to offer business customers an overview of the market and to provide some approximate estimates in order to sell their product or have listed nationally, regionally and globally. ManageFB uses some of very powerful tools such as "Market" and "MyMarkets", which are used to analyze markets by continents, regions, countries, categories, brands. "Trend" is tool that is used to analyze the posts, comments, writing, trends on Facebook

and tool that shows what "feedback" was received by its audience. ManageFB ultimate goal is to become the number one global platform for business on Facebook (Milićević, 2013).

Twitter is a social network that is similar to Facebook, but it seems a little bit easier. It is based on the microblogging platform and it is characterized by short status or publication. This social network is launched in 2006 and since then it continuously increases with the number of registered users. Twitter is often described as the "Internet SMS" and the site that provides users ability to send and receive new entries by using various tools, so it is not necessary to use the original site. This network is a great thing to promote your site and the most visits are visits from the internet. Also, the service was attended by many important and influential people, so it is very important to use it rationally and thoughtfully. In Serbia and the Balkan countries, Twitter still grows like social network. According to previous researches, Serbia has around 50,000 users on this network and because of that it will become slowly but surely important for our companies. The most popular page is Telenor Serbia with 4,663 followers (Stanković, 2012). Twitter is an ideal tool in which we can gather the target group who follow us and who is interested in our publication, products or services. When we have more people who follow us, greater is the impact of our publication. It is very important to be measured with announcements and statuses. The content must be interesting for users. However, advertising must carry out on the very subtle and interesting way, with sweepstakes, promotions and other aspects (Pajić, 2010). Twitter is especially evident during the economic crisis, when all budgets, especially those for marketing, are reduced or non-existent. This is the advantage and the power of Twitter, through which we can communicate free and effectively with the market and customers. It is used by many companies such as Dell, Toyota, CNN, BBC... The big advantage of Twitter is that the most influential people and companies will publish news first on this service and later on the other social media.

LinkedIn is the largest and most popular social network for business networking that has more than 150 million users. Business people use this network to exchange information, ideas, business opportunities, finding employees, promote its own business. Personal profile is used for connecting with other users and the expansion of business contacts, joining groups in your area of business, interest and expertise, building a professional reputation and strengthening of personal brand. You can also create a company profile. LinkedIn company profile is indexed in Google and LinkedIn search engines, which allows others to follow the news about a particular company and open positions, while the company uses it to promote products and services. LinkedIn company profile consists on 4 pages (tabs). They are:

1. Overview – provides a brief overview of company. In this section you have the opportunity to describe who you are and what you do.
2. Careers – is the page where you can advertise vacancies. This page is only available through a paid subscription and that is the only part which is not free.
3. Products and Services – is the page where you can show all of your products and services and to describe them in detail. Basic information you need to complete for each product or service are category, the name and description of the products or services. However, you can also add more details about each product or service, such as the logo, basic or key features, the URL of the product or service page, contact in company responsible for the product, a link to the YouTube video... LinkedIn users can recommend products and services that they like and their recommendations are displayed on this tab. LinkedIn recommendations of products are very valuable and each recommendation is a free advertising for your business. User's recommendations have strongly influence to the decision of purchase.
4. Analytics – this tab is only visible to the administrators of your company's site. Analytics allows you to track attendance on the company's website, to see who visits your page and which content they like. You can also compare the statistics of your company with similar companies.

Content communities

Sites for content sharing are essentially very similar with social networks. The difference is that they are focused on different types of content sharing. These sites are very popular among the users because it is known that the rule is "Content is king" which means that the content is the most important and that it attracts the customers. This rule is increasingly changing in the "Customer is King" that will focus on the user and it becomes the most important in the whole story (Mayfield, 2010). This is true for trade and commercial activity, but slowly begins to be true for social media too. Sites for sharing content are mainly based on sharing photos and video, as well as popular links. For example, Flickr is one of the most popular photo sharing site. It is the most popular service of this kind in the UK. Users upload their photos to the site and decide whether to allow access to all, or will they share only with friends and family. If you have a brand you can share pictures or content via Flickr group too. If you have a catalog, or photos you want to share, Flickr is the right place for it. Users can respond to your content with comments and it can be used as a free online directory. Many famous brands use this service and have their pictures or albums on it. On the other hand, sites for sharing content give easier search to your favorite videos. Sites for video sharing offer tools and resources that make it easy to create and deploy video content. The best-known site of this kind is YouTube. This service is the biggest in the world and every day has more than 100 million video reviews. YouTube began as a small private company, but since 2006 the company is owned by Google. From the marketing point of view YouTube can be used as a very powerful tool, which applicability is widespread. Almost every company or individual can take advantage of this service for promotion. Here you can promote shows and movies, music videos and commercials. Videos offered in this way are completely free with a very positive impression of the public audience. Video must not be too long, because the viewers are impatient and do not have time to watch long videos. If the content is high quality user will share video with its friends, while its friends will recommend it to their friends. This phenomenon is referred to viral marketing. Experienced marketers create interesting video content and latent promote their brand on this content communities (Pajić, 2010).

Social bookmarking

Basic of "social bookmarking" is that users recommend useful information to other users. Content with the most votes are ranked among the first and it is the most visible to users. The most popular sites of this type are "Digg", "Delicio.us", "StumbleUpon"... Site "Digg" is site for new content. Members put links to interesting news and other members can vote for it. Number of votes varies from site attendance, the more votes it have, content will be on the better side (Pajić, 2010). If you use this service in combination with other social media tools it can be a hit for your promotion. Of course, you need to have interesting content and you can easy specify a number of visits to your site. In our country these platforms are less represented than in more developed areas. Domestic examples of such sites are "Delicious" and "DobarDabar".

Blogs

Blogs are like online diaries and these sites are different because they tend to be written in a distinctive personal style of writing. They are usually guided by a single author and it may be from the group of authors. Monitoring blogs is usually performed via RSS aggregators, where you are notified of a new article or comment on your favorite sites. When you want to use blog you need to decide do you want to use some of the free services or you can opt for the hosting and domain approach. Many professionals and business people now have blogs. Blogs allow the company to communicate informally with clients and the public, as opposed to the traditional approach leaflets, brochures and press release. In this way the public and the clients can get the feeling to communicate with the living being, not just a company which sees them only as customers and consumers (Pajić, 2010). Many companies on their websites have integrated blogs, maintained by the employees. By continually adding new content you can get audience that spread the information through social networks. The results that we can get are interesting content, new users

or a positive image of the company. The most famous company blogs in Serbia are "Etarget" and "Positive", which in a very good way, familiarize customers with their services and animate them. Good blogging brings important benefits, and this is achieved by providing useful information and comments, such as interesting news in the field covered by the company's blog, topics for discussion, help with problem solving, education, various promotions of new ideas... Taking advantage of blog system and the blogosphere, this information is disseminated to a Web (especially through social networks), linking to other sites / blogs and achieved greater visibility of the blog quality. There are two basic types of corporate blogs: internal blogs (for employees in the organization) and external blogs, which are designed for those who are interested in information about the organization. Depending on the goal of forming the company's blog, the company's blogs are promoting the very activity of the organization, its products and services, blog owners and top management of the company, blogs run by prominent persons employed, PR services...(Varagić, 2014).

CONCLUSION

Experts' predictions are that the print media will introduce the collection of all or a specific portion of content on its online edition and that social media will become a major source of information. Viral marketing and viral advertising refer to marketing techniques that use social media to increase brand strength, achieve other marketing tasks and this type of business is developing rapidly each year globally. In our region, traditional media (TV, radio, newspapers ...) are still the main source of information. With this type of media is easier to manipulate the public and everything goes according to the established system of placing the news without being able to react to them, which is not case with the new media. Social media is changing each day, repairing the defects and increases the mutual interaction among users, as it rises well above the older forms of media. When you insert new features and options the community will increase. The public likes honesty, transparency, quality, support and interaction and social media is providing it. Social media opens up a new dimension in the modern marketing and therefore we should be more directed at its efficient implementation.

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ONLINE MARKETING AND SOCIAL MEDIA

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ABSTRACT

Social media marketing refers to the process of gaining website traffic or attention through social media sites. A corporate message spreads from user to user and presumably resonates because it appears to come from a trusted, third-party source, as opposed to the brand or company itself. Hence, this form of marketing is driven by word-of-mouth, meaning it results in earned media rather than paid media. The realm of social media is all about generating content, sharing it, collaborating, and most of all, connecting.

Key words: marketing, social media, social networks, connecting.

INTRODUCTION

New words such as „blogs, wikis, social bookmarks etc.“, are new ways to use those words. We live in a world of social media, yet most people find it confusing, a jumbled jungle with no clear structure. Still, comparing social media to traditional media is probably the most useful way of defining what consumer-generated media (CGM), participatory media, and new media are.

Social media is a group of Internet-based applications that allows individuals to create, collaborate, and share content with one another (Kaplan & Haenlein, 2010; Safko & Brake, 2009). Most simply put, social media are media designed to be shared. Sharing means it is easy to send it, to comment and receive comments for it, and that there are no high costs associated with viewing the media. Because of its nature, Internet allows us to view, track, and measure content that has been posted online.

The Internet and software developed to run on it made it easier for all the users who created something to publish their work and distribute content. Also, access to that content was made simple for anyone using the internet. Social media have changed the world we live in, and today, it can easily be used as an integral part of an online marketing campaign.

Social marketing is more than just the application of marketing to social issues: the key point of difference to all other branches of marketing is that the social marketer's goals relate to the wellbeing of the community, whereas for all others, the marketer's goals relate to the wellbeing of the marketer (sales and profits, members and donations, political representation, etc.). If the wellbeing of the community is not the goal, then it isn't social marketing. (Donovan and Henley, 2010)

SHARING THINGS PEOPLE LIKE

When people often visit some web site, and they would like to make a certain shortcut to it, so they could easily come back to it, they “bookmark” them. “Bookmarking” means URL (uniform resource locator) is stored, and it can be located again easily. It also allows users to have a personal library of web sites stored on their computer.

Social bookmarking sites allow users to store their bookmarks online, to use tags as description, and also to share them with other users. Web sites that encourage users to bookmark their links use “chicklets”, buttons placed around the content that makes it easier to share the article. Social bookmarking also allows users to find like-minded people and share relevant content with one another easily.

Seeing how people categorize contents can give an idea how is a company perceived by audience. It may be remarkably different from what people thought they would see. Also, social bookmarking helps people find new ideas, new competitors by looking at other sites that are tagged as theirs.

Practitioners can realize social media’s untapped potential by incorporating it as part of the larger social marketing strategy. Social media’s added value is the opportunity to create ongoing conversations and dialogue with an audience in the “exchange of ideas and opinions” (Kent & Taylor, 1998, p. 325).

CROWDSOURCING: POWER OF ONLINE COMMUNITY

Term “crowdsourcing” was first used in 2006 in Wired magazine. Since then, crowdsourcing has become powerful and cost effective method of achieving business goals through the use of masses. Simply put, business and corporations invite public to submit their innovations or ideas for new and/or existing products in exchange for a small percentage of future royalties.

Social media have allowed the business world to tap into the consumer psyche with little financial outlay.

A well-implemented crowdsourcing strategy has the potential to be incredibly rewarding for a brand, but that doesn’t mean that things can’t go wrong. As with many marketing tactics, there are several well-defined pros and cons. Some of the opportunities and challenges of crowdsourcing when it comes to brands and agencies are:

Pros

- Handing over the ownership of your brand encourages consumer involvement.
- Inter-disciplinary collaboration brings fresh input.
- Individuals have opportunities and connections that did not exist before.
- Problems can be explored at a low cost and often very quickly
- Often, a client pays for results, and only for what is used.
- Organisations can gain valuable insight into the desires of their customers.

Cons

- Many clients have no agency guidance or contribution towards a viable strategy and in some cases have very little control over production value, especially if the end result of the project is completed or finished work.
- When it comes to spec work, as opposed to merely an idea, the risk/reward ratio is fairly high. Not only is this taking advantage of an individual’s efforts, but it can lead to work of a lesser quality.
- Legal issues are often overlooked and the IP of an individual’s work is disregarded with no written contracts, nondisclosure agreements, employee agreements or agreeable terms with crowdsourced employees.
- The crowd’s reliability can be somewhat altered by the Internet. As an example, many articles on Wikipedia may be of a high quality and edited by multiple people, thereby taking advantage of

the crowd's collective wisdom. Other articles can be maintained by a single editor with questionable ethics and opinions. As a result articles may be incorrectly assumed to be reliable.

- Additional costs may be needed to bring a project to an acceptable conclusion.
- A crowdsourced project may fail due to the lack of financial motivation or reward. As a consequence, a project may be subjected to fewer participants, lower quality of work, lack of personal interest, global language barriers or difficulty managing a large-scale crowdsourced project.
- A crowdsourcer may have difficulties maintaining a working relationship with the community throughout the duration of a project. A danger is that some crowdsourced employees might feel a brand has taken advantage of their time or skills. (*Quirk eMarketing, Online Marketing Essentials*)

STAY CONNECTED - SOCIAL NETWORKS

Social networking refers to the forming and substantiating online social networks for communities of people. These are communities of people with common interests and activities, and are interested of exploring the interests and activities of others. Social networks are used to build online relationships with others.

Most social networks allow users to create personal profiles and then interact with their connections through sharing media, messages and blogging. The best examples of social networks of this sort are Facebook and LinkedIn.

What most people aren't aware of is that personal pages remove much of the anonymity of the internet. Users reveal a great deal of personal information about themselves. For a start, they reveal their basic demographics such as age, gender, location, etc. But also likes and dislikes. Though it is made known to a user's connections, these information are also available to networks' advertisers.

Because of demographic information collected by the social networks, advertisers are able to target their advertisements to a particular audience. Overall, social media use is increasing (Madden & Zickuhr, 2011). According to (Radicati, 2011) researchers estimate that by 2015, the number of individuals and corporations who have social networking accounts will reach more than 3 billion.

Profiles on social networks are not necessarily limited to people. Nowadays, bands have found a great success in creating profiles and using them as means of connecting with their current and potential fan base. Marketers can use social networks to identify how users are perceiving or interacting with their brand and open up new avenues of communication with them. Social networks are also an avenue for members to share their annoyances and frustrations, and these should be closely watched by marketers as well.

BLOGGING AND PODCASTING

Blogs are a reconfiguration of existing web-based tools: frequently updated web pages that generally have current and archived text-based posts (Stefanone & Lackaff). According to (Herrera & Celaya, 2006) Blogs are seen by some authors as major tools for online communication, whereas by others they are little more than experts' opinions on a given issue .

Typical blog consist of text, images and links to other blogs or web sites related to the topic of the blog. Topic of a blog can range from the personal to the political, and everything in between. A research on blogging, for example, finds that disclosures via personal-journal style blogs are often nondirected in nature (Stefanone & Jang, 2008).

The true power of blog is that anyone can publish and share ideas, and anyone can read and response to these. They have given consumers and companies a voice, and opened up a world of

information-sharing possibilities. Blogs are powerful because of their reach and their archives. Most of them stay online long after they are posted. For marketers, they present an opportunity to learn how others perceive their products and engage with wider audience. Some brands get this right, some get it wrong. If everybody can be a writer online, so can anybody be a broadcaster.

There are currently over 60 million blogs in existence and 75,000 new ones each day (Cohen & Krishnamurthy, 2006). According to (Gordillo, 2007) every six months the blogosphere population doubles, and it is today sixty times greater than three years ago. No communication medium has ever burgeoned so rapidly. Weblog writers produce 700,000 to 1.3 million articles every day, almost one a second.

Podcast is a digital radio or video material downloaded from the internet. It started as audio blogs, but later, people figured out how to distribute them using the same RSS feeds that were being used to distribute blog post information. At that point, it became possible to subscribe to someone's podcast as one would a blog. Suddenly you could listen to a whole range of programs and voices wherever and whenever you wanted. Radio station without a station telling you what you could hear and when.

Podcasting is an excellent marketing tool because it allows marketers to get the content to their targeted markets, without having to persuade media channel to carry it and to pay huge advertising rates.

SOCIAL MEDIA - WHERE CONSUMERS ARE

Social media is the collective name for a number of online applications that allow users to generate and share information online. It includes social networks, forums, video- and picture-sharing websites, blogs, and micro blogs (Kaplan & Haenlein, 2010). According to (Mangold & Faulds, 2009) these applications allow organizations to talk to consumers, and additionally allow consumers to talk back to organizations and other consumers.

Social media, some would say, implies a democratization of information, and it requires authenticity, as well as openness from those who would deliberately use them as marketing tools. The trick with social media is the length of availability of stories published. In short, both good stories and bad ones spread around easily, and stick around. Another thing to keep in mind while using social media is that marketers are communicating with individuals. Marketers may and should engage in the conversation, and can lead it. But they can not control it.

When using social media as marketing tool, it is important to go where consumers are. The media used are dictated by users. When internet surfers find what they're looking for on your site, your business will grow. (Massey, 2012) As it is with every form of marketing tools, social media marketing has its pros and cons. But the advantages are far greater. Nevertheless, companies who use social media as their marketing tool needs to be sure to monitor its reputation online. As said, bad messages spread as fast as good ones.

CHOOSING THE RIGHT PLACE

When deciding what social media to use, marketers should carefully plan their strategy and know their targeted group. Knowing what is that you want to deliver to consumers defines how, and where to deliver it. For example, Facebook enables users to passively consume information from their network through the News Feed feature (Lampe, Vitak, Gray, & Ellison, 2012).

The explosive growth of social media channels has transformed the way many consumers interact with each other and with businesses of all kinds. Ultimately this is changing the way we do business and how businesses attract and retain consumers. (Leung, Bai, Stahura, 2013)

Table 1: Number of users and average time spent using social media

Social media	Number of users	Avg. time spent
Facebook	1.230.000.000	18 min. per day
Twitter	654.750.000	12.51 min. per day
Pintrest	70.000.000	14.2 min. per day
LinkedIn	277.000.000	17 min. per month
Instagram	150.000.000	257 min. per month
Google +	300.000.000	6.9 min. per month
YouTube	1.000.000.000+	3 hours per month

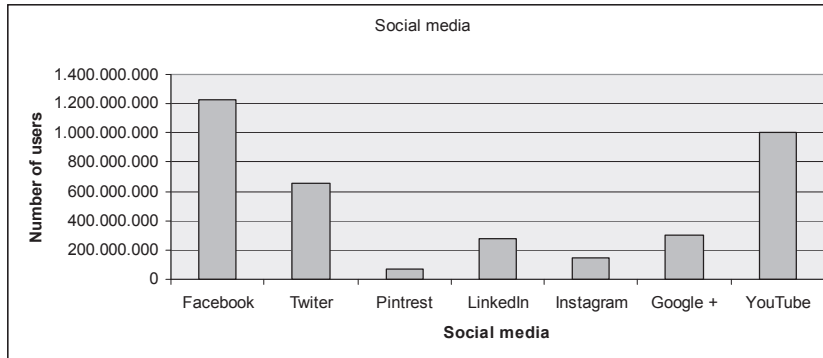


Figure 1: Social media comparison

Table 2: Other social media user activities

Facebook	<ul style="list-style-type: none"> - 350 000 000 uploaded photos every day - 72 000 000 likes per day - 144 000 000 friend requests per day - 261 000 000 messeges sent per day
Twitter	<ul style="list-style-type: none"> - 2.1 billion search engine queries per day - 60% users are on mobile - 208 followers per users (on average)
Pinterest	<ul style="list-style-type: none"> - 80% are re-pins - 80% female users - 50% users have kids - 10 000 000 US monthly unique visitors
LinkedIn	<ul style="list-style-type: none"> - 3 000 000 businesses have pages on LinkedIn - 2.1 million active groups - 8.000 groups are created daily - 40% users check LinkedIn daily
Instagram	<ul style="list-style-type: none"> - 55 000 000 photos uploaded every day - 16 billion total shared photos - 1.2 billions likes per day - 70% users check Instagram daily
Google+	<ul style="list-style-type: none"> - 1.5 billions photos shared per week - 20 000 000 mobile monthly users - 33% overall growth per year - 56% growth in usage for members ages 45-54
YouTube	<ul style="list-style-type: none"> - 100 hours of video uploaded every minute - 6 billions hours of video are watched each month - 4 billions of videos watched every day - 600 000 000 videos views on mobile every day

The Logo C Company recently published an interesting statistic about the size, growth and impact of social media. (Simon McArdle, "Social Media: Waste of Time or Opportunity?")

CONCLUSION

Social media marketing refers to the process of gaining website traffic or attention through social media sites. Social media marketing programs usually center on efforts to create content that attracts attention and encourages readers to share it with their social networks. A corporate message spreads from user to user and presumably resonates because it appears to come from a trusted, third-party source, as opposed to the brand or company itself. Hence, this form of marketing is driven by word-of-mouth, meaning it results in earned media rather than paid media.

Social media has become a platform that is easily accessible to anyone with internet access. Increased communication for organizations fosters brand awareness and often, improved customer service. Additionally, social media serves as a relatively inexpensive platform for organizations to implement marketing campaigns. Social networking websites allow individuals to interact with one another and build relationships.

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STRATEGIC PLANNING PROFESSIONAL SALES SERVICES BASED ON APPLIED STATISTICS

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ABSTRACT

Every organization that is market-oriented and that seeks continuous systemic improvement of the overall quality of the business, must be planned and implemented processes of monitoring, measurement, analysis and improvement. Those processes must be based on the applicable methods, including statistical techniques and the extent of their use (SRPS ISO 9001:2008). This also applies to the sales function. Without sales function, every organization, no matter what was produced and offered to the market, would not be able to make a profit. If you can't sell a product or service, no matter of its quality or price, then the organization met with serious problems that threaten its growth and survival in the market. The basis for strategic planning professional sales services is collecting information from the market, which will give required answers and guidance to management sales. This includes research environment, research demand, competition assessment, analysis, prices, promotions and other analysis. Applied statistics is very important in this planning.

Key words: sales, professional services, statistics, market, health and safety at work (HSW).

SALE AS KEY FUNCTION

Traditionally speaking, the sales include set of activities and tasks, which organizations take in order to implement the goods and services. Economically speaking, sale as realization of goods and services is the final stage of the process of reproduction. Sale is the basis of every business success. (Filipovic, Damnjanovic, 2006).

The modern concept of business is focused on the market opportunities. This means that the product/service satisfies a certain level of quality, and focus is on ability to sell it. In this concept, the quality of the product/service is something normally, and business success is reflected in the capabilities of its sales in the market. To realize successfully this concept of sales, it is necessary to set up a sales problem on the strategic level.

The modern sales concept based activities on the results of market research, complete design of system offerings products or services, establishing contact and communication with customers on a long term and other activities in case of building a stable position in the market (Filipovic and Damnjanovic, 2006). The collected data is classified and processed, using variety methods of applied statistics. Based on those data, organization can make plans, orientation on products with higher demand, pricing policy, the choice of the most efficient equipment/goods, targeting of advertising, prospects of development and others.

SPECIFIC OF PROFESSIONAL SERVICES

Characteristics of service activities, thanks to their resources and expertise, are outperforms the user's ability to satisfy their own needs. Services are different from products because of their intangibility, inseparability of production and consumption, heterogeneity and the inability to delay consumption. According to a broader understanding, some of the basic characteristics of services are: (Djordjevic, 2004)

- services are mostly immaterial nature,
- not be stored, the act of creating and the act of consumption and satisfaction is almost at the same time,
- are heterogeneous, so that almost any material, and some are purely intellectual.

Certain processes in the organization (eg risk management in the workplace, the implementation of quality management systems, etc.) can be organized and carried out only with the help of specialized companies that have the necessary technology and knowledge. It is often in practice, a need for a specific series from complete knowledge, which can be delivered quickly, safely and are logically connected to the specific problem. Otherwise, companies have need to engage for specialists or experts which are basically make professional services, in areas that do not have their own resources (knowledge, equipment, technology, people). „Outsourcing "services are services that the organization, as a purchaser, receives through external specialized companies, because it doesn't have or not plan to have the necessary knowledge, skills or resources to an area that uses from external firms (accounting jobs, legal jobs, cleaning, facility management, building security, fire safety, safety and health at work, environmental management, etc..). "Outsourcing" is applied to the products or services that are not core business customer, when purchaser realizes cost savings because doesn't have to invest in additional resources for expanding its own capacity or hiring new employees for that jobs. On the other hand company ensures the quality and expertise in this field.

APPLIED STATISTICS AS SALES FUNCTION OF PROFESSIONAL SERVICES

*When a man stepped with one foot in boiling water and the other in the freezer,
a statistician would say that this man is in a pleasant average temperature.
Walter Heller*

When we are making any kind of decisions (personal or business), often we don't have enough information, and then we make them under conditions of uncertainty. Help in solving this type of problem, provides statistical methods. Statistics is a scientific discipline which in an organized way, access to collection, selection, grouping, presentation and analysis of data and also in interpretation of the results of the analysis, in order to achieve pre-set research points. Theoretical and applied statistics are two aspects of statistics. Theoretical statistics includes development, performing and proving theoretic statistic formulas and rules. Applied statistics includes application of those theorems, formulas and rules in solving real problems.

Using applied statistics, organization can make strategic planning sales through research environment, demand, competition, pricing, etc... What is important to note for the sale of professional services is the fact that service organizations significantly committed to the local market, where service users generally use a local service organizations. (Djordjevic, 2004)

STRATEGIC PLANNING PROFESSIONAL SALES SERVICES ON THE EXAMPLE OF SERVICES IN AREA SAFETY AND HEALTH AT WORK

Services of health and safety at work are professional services, which are necessary in every business in Republic of Serbia. Services of health and safety at work are specific, because they are

specialized and roughly speaking, can be identified as: the service of risk assessment (one-time service of making document), Safety and Health Manager – designated person for safety and health at work (Monthly Service - continuous service), service of making of general Act of health and safety at work (one-time service of making document) , the service for training of employees for safe and healthy work (one – time service, but dynamic, it relate to every new employee who must be trained for safe and healthy work). To be a legal entity who is able to provide those services in the health and safety at work, it must obtain a license of the competent ministry. Condition for obtaining a license is required number of qualified employee with appropriate engineering profession and with professional exam. In the following is given the use of descriptive statistics from available data sources.

The research of area

In the Republic of Serbia, according to data of the National Statistics Institute, operates 91.536 business company and 226.132 entrepreneurs, making a total of 317.668 economic entities. Number of businesses that operate in the Republic of Serbia in the regions, and the number of employees is given in Table 1:

Table 1: Number of economic entities in the Republic of Serbia, the number of employees in the 2012th year by region (Statistical Office of the Republic of Serbia and Ministry of Labour, Employment and Social Policy, 2013)

Category analysis	Total	Vojvodina	Belgrade	Sumadija i West Serbia	Southern and Eastern Serbia
Number of business company	91536	23860	39645	17256	10775
Number of employees in business company	994479	236996	424426	199310	133747
Number of entrepreneurs	226132	59924	58861	66078	41269
Number of employees in entrepreneurs	207566	57413	40101	63721	46331
Number of economic entities wich providing services to OHS	458	130	134	108	86

Table 2: The division of business organizations in the Republic of Serbia, the number of employees in the 2012th year by Region (Statistical Office of the Republic of Serbia, 2013)

VOJVODINA					
Category analysis	Total	Micro 0-9 empl.	Small 10-49 empl.	Medium 50-249 empl.	Large 250 & > empl.
Number of business company	23860	20544	2621	564	131
Number of employees	236996	39481	54263	58767	84485
BELGRADE					
Number of business company	39645	35042	3666	737	200
Number of employees	424426	65823	72879	77202	208522
SUMADIJA and WEST SERBIA					
Number of business company	17256	14488	2138	520	110
Number of employees	199310	29914	43329	53343	72724
SOUTHERN AND EASTERN SERBIA					
Number of business company	10775	9115	1274	321	65
Number of employees	133747	18527	26021	34911	54288
TOTAL					
Number of business company	91536	79189	9699	2142	506
Number of employees	994479	153745	196492	224223	420019

Research of demand

According to data from 2009, Risk Assessment has made 76.43% economic entities (the results of research for the Center for Democracy 2009.). In 2012 year, there were 31.469 controls in economic entities. 94% of employers made the act on risk assessment (as of the year 2012) (Work Report, 2013). This suggests that the current demand for the service "the service of risk assessment" small, and it gradually decreased each year, which is important information for sales planning.

According to the same report (Work Report, 2013), only 46 % of economic entities had designated person for safety and health at work (in the act of writing), 31 % of employers for safety and health at work employ economic entities with a license to perform safety and health at work 20 % of employers perform those duties themselves, while 3 % of employers did not regulate this issue in accordance with the Law on Safety and Health at Work . This is an example of imprecise presented statistical data. From those data, it is impossible do analysis of demand for service "designated person for health and safety at work - monthly service" because they contain inconsistency in interpretation. In fact, if the 46 % of economic entities in had the designated person for safety and health at work (in the act of writing), in the technically speaking there are 54% of business entities don't have designated person for safety and health at work. Because of this, all other information than specified in percentages, become inaccurate and therefore useless. Certainly, there is a need to determine how the demand for service "designated person for health and safety at work", because this job can bring profit to licensed economic entities.

In 2012 there were 6765 injuries at work. The largest number of those injuries was in industry and mining (35.32 %), followed by health and social care (13.83 %), transport and communication (8.74 %), construction (5.46 %) and beyond. The lowest number of injuries was in the field of hospitality and tourism (0.61 %) and waterpower engineering (0.73%) (Work Report, 2013). Also, the largest number of injuries occurred in large economic entities (with more than 500 employees) 36.65 % , and the lowest number of injuries in economic entities with fewer than 10 employees - 2.79 % . Those data can assist in the strategic planning of sales services "Training the employees for safe and healthy work". In economic entities in which frequently occurring injuries, it is necessary to implement additional training for safe and healthy work, as a preventive measure in the risks management, because one of the most common causes of workplace injuries is incompetence for safe and healthy at work.

Rating of competition

According to available data from the Ministry, there is 458 economic entities with licenses to provide services (operations) in the field of health and safety at work or 0.02% of the total number of economic entities in Serbia. According to data from the website of the Ministry of Labour, Employment and Social Policy, in the period from 2006 to 2013 year, 5988 person passed the professional examination on practical training in conducting safety and health at work.

Table 3: Number of person passed the bar examination on practical training in conducting safety and health at work

Level of education	Number of designated person for health and safety at work
III	109
IV	1046
V	36
VI	1564
VII	3193
VIII	40
TOTAL	5988

In Republic of Serbia there are 458 economic entities which provide health and safety at work services. The same companies (in accordance with law) can be employed exclusively VII and VIII education degree of persons with professional examination. In accordance with that, we can present the following conclusions:

- Total number of persons who have passed the professional exam, which may be hired in licensed firms as providers of health and safety at work services, is 3233 persons.
- In data from Table 2, there are 11841 small and medium-sized business companies. Those companies representing a target group for providers of health and safety at work services, in service "designated person for health and safety at work-monthly service". This is because (in accordance with law) micro business company does not need to use this service, and large business company has their own designated persons for safety and health at work. According to this, there is a large number of designated persons for safety and health at work in relation of potential recipients of services, which can lead to unfair competition, poor service quality with low prices.
- Some companies that provide services for health and safety at work determine the specific profile of activity in which they provide services (production activity, construction, service, or other). Therefore, as an important parameter for the analysis is activity of companies that can accept services. In Serbian construction industry are 23656 companies. Construction contributes to the total number of companies with 7.17%, but there is current stagnation this activity because of difficult economic conditions. Manufacturing makes 51620 firms, or 15.66%. Trade and repair of motor vehicles, dealing with 96067 firms, or 29.14%. Based on those, management in companies can see the facts in regarding selection of the target business, which will offer services.

Analysis promotions

Each consulting firm that provides services in area of health and safety at work has its own ways to representing and advertising services. Conducting research, it could be seen that way of promoting these services, which brings the most jobs and contracts concluded (internet advertising, direct sales, recommendations, sending of advertising materials, trade shows, professional conferences). The firm should also analyze the possibility of additional benefits for customers who contribute to improvement of sales (flexible payment terms, discounts on other services, etc..).

CONCLUSION

From those statistics, a company can make strategically plan and approach to the market, which including:

1. Market choice, which can be determined on the basis of the territorial coverage of competing firms or on demand for a particular service.
2. Selection of target groups - micro, small, medium or large companies. This choice includes the possibility that company decides to provide services only in certain sectors (manufacturing activity or construction).
3. Based on the research of the best ways of promotion, company may invest additional resources in advertising campaign or focus resources in otherwise promotions (if internet advertising brings the highest percentage of performance of the contract, the company can redirect 90% of advertising to the internet advertising, to creating a quality site).

Successful implementation of contract (sale of professional services) brings to the company safety in further business, and the possibility of growth and development. Selecting performance in the market and determining target group, service provider is able to plan the number and structure of employees, and the possibility of opening new regional offices. Using statistical data, open the possibility for a large number of different strategies and decisions. Expanding areas of research, occurs new possibilities for sales planning.

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MARKETING STRATEGIES OF THE ANATOLIAN BANK CALL CENTERS IN TURKEY

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ABSTRACT

The bank call centers represent the banks to the customers calling the call center. They partly determine the quality of the banks. Because the customers can evaluate the performance of the banks by taking the service quality of the call center agents as a measure. Call centers are one of the most interactive point of the operations of all the banks. Companies. The marketing strategies of the bank call centers are elaborated with this study. The bank call centers which are located in the big cities are compared to the bank call centers which are located in Anatolian cities. The strategies of bank call centers in the big cities and the Anatolian bank call centers are compared to each other. 102 interviews are used for this qualitative study. The Anatolian bank call centers and the other bank call centers which are located in big cities have different marketing strategies definitely. The call center companies started to move to Anatolia after government incentives to get a cost advantage. But they did not get only cost advantage, they also had the chance to implement new strategies, such as market niche. The strength of Anatolian bank call centers can be imitated by the other bank call centers. This paper is a proof of the success of the Anatolian bank call centers and the contribution of Anatolian labor to the bank call centers. Not only the characteristics of Anatolian people and culture, but also the characteristics of Anatolian environment which produces lower stress levels are the reasons of a better service quality.

Keywords Marketing strategies of bank call centers, Anatolian bank call centers, SWOT analysis.

INTRODUCTION

The bank call centers have different and similar marketing strategies. Among the factors that affect the success of the bank call centers, employees are the most important factors. Marketing strategies can be successful with the true employees. The success of the CRM is correlated with the success of the human resources operations. The employees who have adequate skills can carry a bank call center higher. The key factor for success is choosing the right marketing strategies which can be applied with the existing employees.

The labor of some regions has appropriate characteristics for the call center agents. India is preferred by many call center companies. The labor is cheap, tolerant and has higher skills. Similarly the quality of the Anatolian labor seems to be appropriate for the call centers. The call centers are expected to operate under a special set of circumstances, thus the performance levels which are achieved by the call centers are tended to vary (Betts, Meadows and Walley, 2000). But the studies have shown that Anatolian bank call centers have higher performance than the other bank call centers in Turkey (Özkan, 2012a). Anatolian bank call centers were expected to provide worse service than the other bank call centers. Some banks have chosen their marketing strategy by focusing on their reputation and did not move any of their call center operations to Anatolia. On the other hand there is still no proof of a lower service quality of Anatolian bank call centers.

MAIN MARKETING STRATEGIES OF THE BANK CALL CENTRES

Bank call centers are cost centers. Among the other responsibility centers, cost centers have the most limited marketing strategies. A cost center is expected to use three pathways to competitive advantage. On Table 1, three pathways to competitive advantage can be seen.

Table 1: Three Pathways to Competitive Advantage

	Types of competitive advantage	Competitive target
Product/service Superiority	Marketing Advantage	Marketwide
Cost/productivity Leadership	Cost Advantage	Marketwide
Market Niche Leadership	Marketing or Cost Advantage	Market Segment

Source: Porter, 1980

We can divide the bank call centers into two main groups: Anatolian bank call centers and big city call centers. Big city call centers use the first strategy, they focus on service superiority. They expect to get marketing advantage. The compensations, especially salaries seem like an important criteria for this group of bank call centers.

Somehow, the level of education is not an important factor for a better service at the CRM sector. This situation is observed in the call centers of Ireland (Jobs, Burris and Butler, 2007). Higher education levels might increase the expectation level and reduce the employee loyalty.

Effectiveness of CRM cannot be measured easily, as there are many factors affecting this process (Jain, Jain and Dhar, 2003). For this reason, it is difficult to claim that big city call centers have a higher performance. Application of the technologies might be playing a key role on call center operations, but these applications have their own risk (Walker and Craig-Lees, 1998). For example, customers, expecting the service to work properly, can get angry with technological problems (Bennington, Cummane and Conn, 2000). The perception of the customers will not be as high as expected. When these kind of problems occur, the focus of the company will be the technological problem, not the customers. But as it is defined at the agency theory, it is not always possible to monitor the agents. So the ability and the intend of the agents might be playing a key role on the management of such a situation. Only agents can keep customer satisfaction, even though there is a technological problem. Technologies are useful, if they can be used efficiently by the agents. Behavioral dimensions are the most important ones among the others. High salaries may not work, if the behavioral tendencies of the agents so far from the aimed ones.

The second group of the call centers has different marketing strategies. Anatolian bank call centers aim cost leadership. They have cost advantage. Surprisingly, they might be having the marketing advantage. The researches have shown that these bank call centers have better services (Özkan, 2012a).

Further studies have shown that agents of Anatolian bank call centers have better behavioral performances (Özkan, 2012b). Behavioral dimensions are used to evaluate behavioral performance. Behavioral dimensions are defined by ten factors: attitude, understanding expectations, quality perceptions, reliability, communication, customization, recognition, keeping promises, satisfaction audit and retention (Oztaysi, Sezgin and Ozok, 2011). Besides these factors, the absorptive capability of the agents is important for the development (Cohen and Levinthal, 1990). Absorptive capacity is a competitive advantage (Liao *et al*, 2009). The idea of balance score card takes this factor as learning and growth (Kaplan & Norton, 1992). This idea accepts that growth can be possible together with learning. A firm has to combine current knowledge with the acquired knowledge to increase its capabilities (Kogut and Zander, 1992). The knowledge can be useful if it is used on the right time and in the right way (Van den Bosch, Volberda and De Boer, 1999). It is seen that ability to use knowledge is vital for the call centers (Chou, 2011).

The behavioral patterns of the Anatolian people have a traditional respect base. The culture of Anatolian people is mostly based on respect, disrespect is unacceptable. There is also a high loyalty to the company. The reason of this loyalty is not only the reputation of the banks as a huge company, but also the limited alternatives. The employees might be looking after his or her family with the salary and the compensations. For example in Sivas, where the call center of Garanti Bank is located, it is not possible

to see any other company and job opportunity. The poor job opportunities affect the expectations of the and the employee loyalty increases in Anatolia.

METHODOLOGY

102 interviews are evaluated. The call center agents participated the survey. Snow-ball sampling is used. 62 of the participants are working or worked in Anatolian bank call centers and the rest of them are working or worked in the big city call centers. 3 team leaders from Anatolian call centers and 2 team leaders from big city call centers are interviewed.

Frequency table of the participants is shown on Table 2. The participants are bank call center employees. They are mostly female. The call center employees are usually female due to the preferences of the customers and the structure of the females which is more appropriate for a call center job.

Table 2: Frequency Table

		Anatolian bank call centers	Big city bank call centers
Gender	Male	25	8
	Female	37	32
Education	Primary school/ high school	46	21
	College/ undergraduate	16	17
	Master/ doctorate	0	2
Age	18-25	48	21
	25-35	13	16
	35+	1	3

6 different subjects are evaluated: desire for learning, working performance, compensation satisfaction, allocation to branches, education/training efficiency and productivity. The questions are shown on Table 3. These questions are given in Turkish to the participants. The original form of the questionnaire can be seen in Appendix.

Table 3: The Questionnaire

A.	Desire for learning
A1.	Would you join if there was any trainings during your off-days?
A2.	Would you join if there was a foreign language course after work?
B.	Working performance
B1.	Do you find the working conditions hard?
B2.	Do your team leader give permission on any days when you ask?
B3.	Would you react if your team leader gives you some extra work?
B4.	Do you speak more than necessary on the phone?
B5.	Would you work the same if your team leader did not show up?
C.	Compensation satisfaction
C1.	Do you think your salary is enough?
C2.	Do you expect your company to rise up the salaries?
C3.	Do you believe there are call centers with higher compensations?
D.	Branch allocation
D1.	Have you ever worked in a branch?
D2.	Have you ever worked out?
E.	Education/training efficiency
E1.	Do you think the trainings are important?
E2.	Do you note the things you have learned?
E3.	If you have notes, do you use them while working?
F.	Productivity
F1.	Would you like to increase the performance of your location?

F2.	Would you make contribution to your location by your ideas?
F3.	Would you tell your managers, if you saw a problem around?

Guttman scale is used and the answers are taken as yes or no. Also, a space is left after the questions for the personal comments. A qualitative study is prepared according to the answers and the comments of the participants.

FINDINGS

The allocation of the answers can be seen on Table 4. The number of the answers are shown on the left and the rates are shown on the right. The questions are not written again, instead, their codes are written.

Desire for learning, working performance, compensation satisfaction, allocation to branches, education/training efficiency and productivity scores of Anatolian bank call centers are better than big city bank call centers.

Not only mentality, but also some other factors play a great role on the worse answers of the big city agents. Some of the agents have noted that if the call center was near, then they would come for any kind of education on their off days. Another part of the big city agents mentioned that they do not want to pay for transportation. On the other hand, there is a group which mentioned that they accept their job a temporary job and they are able to find better ones. That is why they do not want to make any sacrifice. The reason of more attendance to foreign language class is the financial value of such a course.

Table 4: Allocation of the Answers

	A		B		A(%)		B(%)	
	Yes	No	Yes	No	Yes	No	Yes	No
A.								
A1.	52	10	12	28	84	16	30	70
A2.	57	5	23	17	92	8	58	43
B.								
B1.	22	40	36	4	35	6	90	10
B2.	58	4	21	9	94	6	53	23
B3.	15	47	35	5	24	76	88	13
B4.	20	42	33	7	32	68	83	18
B5.	44	18	9	31	71	29	23	76
C.								
C1.	49	14	5	35	79	23	13	88
C2.	13	49	34	6	21	79	85	15
C3.	41	21	37	3	66	34	93	8
D.								
D1.	11	51	1	39	18	82	3	98
D2.	14	48	0	40	23	77	0	100
E.								
E1.	52	10	6	34	84	16	15	85
E2.	43	19	8	32	70	31	20	80
E3.	39	23	2	38	63	37	5	95
F.								
F1.	42	20	13	27	68	32	33	68
F2.	53	9	11	29	85	15	28	73
F3.	55	7	3	37	89	11	8	93

A: Anatolian bank call centers

B: Big city bank call centers

Working in a reputable company is a non-financial compensation for the employees of Anatolian bank call centers. The employees of the big city call centers are mostly seeking a better or a comfortable job. The team leaders of big city call centers mention that there is always some stories of better call centers. The agents of big city call centers prefer to complain about the conditions. They sometimes do it to

disturb the other agents. The team leaders explained the reason of this situation to be promoted. If the experienced employees quit, then the other experienced employees will find more chance to get promoted. The Anatolian team leaders told that there are rarely similar situations in Anatolia as complaining about the employer is not accepted something good, but the employees are not used to work under such conditions. For this reason they might be finding the working conditions hard at the beginning.

Although the requests for time off are always evaluated and almost never rejected, there is a big difference between the answers of question B2. Question B3 shows that Anatolian bank call center agents have more tendencies to obey. Big city bank call center agents mostly admit that they avoid working by speaking more than necessary with the customers. Question B4 shows that big city call center agents need to be strictly controlled by a team leader. Team leaders of big city call centers agree with this situation and they mention that they cannot leave their team even for a minute. If they have some important meetings, then the performance values of that day will be ruined for their team.

The salary of some Anatolian bank call center agents is below the minimum wage as they are part-time workers. Premiums are paid according to the performance of the employees as compensation. These premium payments are found effective by the Anatolian call center agents. About the expectation of the salaries, there is only one comment of a big city agent, it is like "it is necessary".

The stories about the better call center conditions are incredible on big city call center side. Some of them are even against working laws. The ignorance is higher than expected. It is uncertain whether these stories are made up to ruin the motivation of the other agents, but the team leaders emphasize that most of the agents seem to be really believing these stories. They think the turn-over rate is between %30-40 and they say that they have seen many agents, who quitted with a hope of finding better jobs, coming back and asking to be employed again. The answers of the Anatolian bank call center employees for C3 are more rational. They are aware of higher compensations in big cities and they are aware of higher prices of these cities.

The rate of working in a branch is higher in Anatolian bank call centers. The team leaders of Anatolian bank call centers mention that the sales representative need of the new branches are sometimes met by the call centers. The managers of the bank branches are mostly satisfied with the performance of these people.

The team leaders mentioned that the call center agents are sometimes sent to meet some customers who require loans from the bank and in a place without any bank branch. This is market niche. With this information we can add market niche leadership to the marketing strategies of Anatolian bank call centers. The rate of working out is higher in Anatolian bank call centers.

The trainings are ignored by the big city bank call center agents. These trainings are accepted to be more important by the Anatolian bank call center agents and seem to be actively used. The productivity of the Anatolian bank call center agents also seem to be higher. They are more sensible than the big city call center agents. Team leaders of Anatolian call centers mention that they hear various ideas during a meeting. Even though almost none of them were useful, they still keep trying and do not lose their hope.

The team leaders of big city call centers think that employees of the big city call centers are less satisfied. They usually think that they deserve a better job without paying attention to the necessary qualifications for a new job. They also think that increases at the salary or premiums cannot always increase their performance, sometimes these compensations can be increasing the expectations of the employees and getting promoted is sometimes the only concern of the big city call center agents.

Another strange point is the complaints about mobbing. In big city call centers the social relations seem to be weak and friendship after work almost does not exist. Mobbing can be felt if the loneliness of the employees is increased. An employee of the big city bank call centers has written that the groups can be offensive to the other team members who have higher performance grades.

The mobbing is not clearly recognized by the agents of the Anatolian call centers. The employees are used to know each other as they live in a smaller region. The relationships are more respectful to each other. Because sometimes the families are friends.

The stress level of the employees of big city bank call centers seem to be higher. They mentioned that traffic, accommodation, neighbors are their main problems. The team leaders confirmed these kind of problems and they added that these kind of problems can totally reduce the performance of an agent, their reactions to the customers can be sharper. The Anatolian bank call center agents do not seem to be struggling with such problems and they have lower stress levels.

CONCLUSIONS

The Anatolian bank call centers are using two of the three pathways for marketing. The cost advantage of Anatolian bank call centers mostly depend on government incentives. The Anatolian bank call centers are mostly located to the cities which have advantages of government incentives. It is normal to see the bank call centers, which started their business as a business unit in Anatolia, enjoying the advantages of government incentives, because they are cost centers and they focus on the costs.

The second strategy of Anatolian bank call centers is market niche strategy. The Anatolian call centers also seem to be using market niche strategy. They evaluate the loan demands by sending agents to the customers. With this method, they are able to reach the places where the other banks cannot reach. The customer value mining can be used for such visits (Wang, Zhou and Yeung, 2005). But even without data mining, such visits have very low costs. Big city bank call centers are not able to use such a strategy, because they are not close to such places.

The service superiority may not be focused by Anatolian bank call centers, but the service quality of these bank call centers are expected to be higher with the understanding of their staff. Even if Anatolian bank call centers do not have higher service quality now, they will have higher service quality in time. The answers of Anatolian call center agents are better for the productivity questions.

The main advantage of the Anatolian bank call centers is the low stress levels in Anatolian cities. Daily life is not as complex as the big cities. The agents are more healthy and tolerant. They have better living conditions as they spend less time in traffic jam and they have better social life which is urgently necessary to cope with the depressing affect of call center jobs.

In big city bank call centers, the agents announced that the time they spend on the way from home to the call center is changing between 2 and 6 hours a day. The transportation is easier for the agents living in Anatolian cities and the distances are short. The employees of the Anatolian call centers can have spare time which can be used to improve their abilities.

The team leaders also mentioned that foreign language is not a problem in Anatolian bank call centers, because most of the families living in Anatolia have relation with Europe. Some of them worked in Europe and returned their home, some of them have relatives still living in Europe. The young generations of these families are mostly able to speak a foreign language properly. These people are employed in call centers when it is necessary.

The policy of the companies and the government can provide important advantages in the emerging markets (Nkamnebe, 2010). The Anatolian bank call centers created their own advantage. They are not successful only on their core competences, they are also successful more than expected on the other marketing strategies such as service quality.

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APPENDIX

The questionnaire which is used to collect information

Cinsiyet: a)Erkek

b)Bayan

Eğitim durumu: a)İlkokul/lise

b)Yüksekokul/lisans

c)Lisansüstü/doktora

Yaş:

- | | |
|--|------------|
| A1. İzin günlerinizde eğitim verilseydi katılır mıydınız? | evet/hayır |
| A2. Mesai sonrasında yabancıdil kursu olsa katılır mıydınız? | evet/hayır |
| B1. Çalışma koşullarını ağır buluyor musunuz? | evet/hayır |
| B2. Takım lideriniz izin günü taleplerinize onay veriyor mu? | evet/hayır |
| B3. Takım lideriniz ekstra iş yükü verse tepki verir miydiniz? | evet/hayır |
| B4. Telefonda gerekenden fazla konuşuyor musunuz? | evet/hayır |
| B5. Takım lideriniz etrafta olmasa yine aynı şekilde çalışır mıydınız? | evet/hayır |
| C1. Maaşınız sizce yeterli mi? | evet/hayır |
| C2. Şirketinizin maaş artışı yapmasını bekliyor musunuz? | evet/hayır |
| C3. Daha yüksek teşviklere sahip çağrı merkezleri olduğunu düşünüyor musunuz? | evet/hayır |
| D1. Hiç şubede çalıştınız mı? | evet/hayır |
| D2. Hiç dışarıda çalıştınız mı? | evet/hayır |
| E1. Eğitimlerin önemli olduğunu düşünüyor musunuz? | evet/hayır |
| E2. Öğrendiklerinizi not ediyor musunuz? | evet/hayır |
| E3. Notlarınız varsa, çalışırken kullanıyor musunuz? | evet/hayır |
| F1. Lokasyonunuzun performansını arttırmak ister miydiniz? | evet/hayır |
| F2. Lokasyonunuza fikirlerinizle katkıda bulunmak ister miydiniz? | evet/hayır |
| F3. Etrafınızda bir problem gördüğünüzde, yöneticilerinizle paylaşır mıydınız? | evet/hayır |

DEFINITION OF MARKETING STRATEGY OF SERBIAN RAILWAYS IN A COMPETITIVE ENVIRONMENT

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ABSTRACT

It was observed that in recent decades the railway operates at a loss and the development of competition is losing its competitive edge in the market of services, especially in transportation. By applying the marketing strategy of the railway, which was developed in the foreign railway administrations can reach satisfactory results. Special emphasis is placed on participation in the development of rail transport in the country. The increasing competition in the market leads to sudden changes so that managers need to constantly improve their skills and be able to anticipate all the possible changes that may occur, to predict the moves of opponents and the sudden and dramatic change in strategy, providing an advantage over them. A successful manager must take account of all these things and must plan to respond by planning two or three moves ahead, which will be a successful response to the challenges of the market and competition. The purpose of this paper is to show the possibility of the application of modern scientific discipline, marketing, by defining the marketing strategy to improve rail operations. Using a variety of sources, which are related to marketing, railways, their detailed analysis should be the ultimate goal of the work is defined marketing strategy, which will in the near future to increase, to regain the trust of service users and to allow managers to assure themselves of opportunities and marketing opportunities by providing, in the example, which in this case is directly attached to the rail. Through analysis and consideration of the issues of rail operations, research should lead to a goal that has already been pre-determined by the strategy. For example, this research is based on the increasing number of users, increasing revenue and defining marketing strategy can reach a good idea and to come to a conclusion on the implementation of the strategy in other segments of the railway.

Keywords: marketing, strategy, railways, competition

INTRODUCTION

Since the marketing concept of railways based on meeting the needs of service users in respect of the carriage of passengers, which is the subject of this paper, defining marketing strategies can be placed to achieve the goals and actionable business results. Needs in terms of type, number and quality of services and perceived attitude on the cost of transportation is taken as a basis for policy making. If the services and their quality will meet the requirements and needs of service users, incentive rates, will ensure sufficient sales service. Under the direction of marketing involves the railways planned, implemented and controlled activity, based on the research result, to meet the anticipated demand for services.

The essence of marketing is the railways;

- Marketing management is the analysis, planning and control of programs designed to build and maintain beneficial exchanges and relationships in the target market in order to achieve the objectives of the railways. Marketing management is demand management.
- Marketing management is the process of identifying needs, decide on needs to be satisfied by the target market, the evaluation of alternatives based on the analysis of costs and effects, the choice of an alternative that is most favorable for taking action by the custom of the organizational structure and control the efficiency of the overall marketing activities of the railways.

- The process of marketing Railways provides an analysis of market opportunities, establishing goals to be achieved in the market, finding the optimal combination of marketing mix and permanent control of results.

COMPETITIVENESS IN THE STRUCTURE TRANSPORT MARKET

Under the terms of the competitiveness of the structure of the transport market there are three large segments:

1. continental,
2. maritime,
3. aviation transport market .

Continental and maritime market is related to individual modes of transport, sea and air, which have a natural monopoly in the provision of transport services in these market segments. On the continental transport market there is competition increasing number of traffic branch, and its structure is a reflection of their market and market share. No the present competitiveness of a number of transport modes baseline structure of continental transport market has been the competitive relationship between road and rail transport.

Road traffic has assumed the role of the main carriers of goods in developed West. In these countries, the railway in the late 80s retained the lead role carriers, with about 2/3 of the total transport. In recent years in these countries there is much changes in the structure of the transport market manifested in the increasing role of the road, at the expense of the share of the railways, the railway transport volume has declined by an average of about 40 %. This decrease was partially due to the fall in economic activity, but it is still predominantly reflect the reduction in market share of railways, and the increased market share of road transport.

On the passenger transport market, there was a more developed structural changes. They are in an increased market share as road and air traffic and, at the expense of the share of railways. In almost all western countries, the share of railways in the total transport operation in passenger transport ranges below 10 % while the share of road transport is about 90 %. Competition is one of the basic elements of the transport market, where carriers compete with each other by applying various instruments marketing mix. The existence of competitive relations should provide good quality offers. Potential competition includes all providers of transportation services that may appear on the market which have not been present.

STAKES RAILWAYS IN DEVELOPMENT SERVICES IN SERBIA

Action railways in stimulating transport

Despite the difficulties that our railways in the past faced, efforts were made to repair the place and role of this industry in total. In addition to the modernization of railways, rail facilities, driving and towing capacity, railways constantly strives to enrich the passenger transport service.

Here are some of the ways:

- by introducing the new international trains for travelers who live and work abroad and that have something for our country
- For travelers who are employed or are in need of some personal reasons for the rapid transport of introduced business trains, which are now replaced by the tag IC for European standards .
- It has also introduced transport "of cars" but only for international traffic. Particularly interesting is the destination toward the Adriatic Sea to the drivers to avoid congestion on the roads and vast stretches of roads.

- Depending on the season, the trains are introduced to the most wanted tourist destinations. In the summer season are the highest speed international trains to the coast of Montenegro and Croatia coast, as well as Bulgaria, while in the colder period of transport relies to Kopaonik, Zlatibor and other mountainous regions. Also during public events, such as significant sporting event, concert or rally, railways out all its available capacity to meet the passengers.
- the obligatory seat reservation to take advantage of all the available seating capacity
- Due to the great interest of passengers, made a large sales network to the passenger ticket is supplied in a timely manner.
- All major stations have wardrobe or cabinets to store items, as well as many other useful actions, carriers, ambulances, police the passenger does not feel very safe.
- How would the passengers were better informed about innovations in rail transport, in addition to media and advertising materials used and other ways complaint and notice. Excerpts schedules, bulletin boards, billboards, railway poster...
- Also, the price is one of the very important elements influencing the traveler chooses the railways. Price policy shall be strong incentive travelers.

DEFINITION OF MARKETING STRATEGY

The term "strategy" marketing concept

The term "strategy" first appeared in ancient Greece, and comes from the word "strategos" which means a commanding position in the army, and includes its skills and capabilities in command on the battlefield, decisions about how to fight as well as the relationship between soldiers and citizens. In addition to the military and war strategy used long ago, today we can see the strategy was the sports court, various contests, video games and the like. Mostly represented in enterprises, companies and is one of the most important factors for the success of the same in the market and in the fight competition.

In the process of strategic marketing very important factor is strategic planning. The process of strategic planning involves a number of factors, including the wishes and needs of consumers, access to state of the market, analyzing market conditions, understanding own capabilities, analyzing the competition and finding the weak points, looking at the legal, economic and other conditions, technical developments, consideration potential dangers and problems that may occur and with whom to fight, etc...

Strategic analysis of Railways

As stated above in this section, in order to achieve these objectives and a strategy we need to do strategic analysis. The strategic analysis should include an analysis of the environment in which railways exist, all the changes that will occur in the environment and the impact that changes can bring in rail operations. You need to carry out detailed research and analysis of human, technical, organizational, research and development, financial and other internal influences.

SWOT analysis

SWOT analysis is an analysis of the strengths, weaknesses, opportunities and threats in relation to the internal and external environment of a particular organization. Strengths and weaknesses of the firm's internal environment and opportunities and threats are coming from the external environment. Often, this analysis is a key step in the development of strategies, both at the organizational and at the functional level. The purpose of this analysis is to determine the image of the organization, and initial information is usually provided interviews to obtain the most important particularity. Expertly team responsible for data collection aims to give participants information

about the strengths and weaknesses of the organization, based on their knowledge of the situation in the organization, competitors, user services, and so on.

Strengths:

- Railways has the potential for mass transport, it can transport large numbers of passengers;
- Railway infrastructure is well developed and covers all development centers in Serbia, a tourist destination in combination with other forms of transportation;
- Personnel with a large number of personnel of different educational backgrounds;

Weaknesses:

- Insufficient budget of the Ministry which is further reduced in 2010 due to reducing the effects of the economic crisis and reduced budget revenues;

Options:

- Applicability of many marketing strategies to different market segments;
- Recruitment of quality staff is educated in the field of management that are in the last ten years before;
- The possibility of exploiting the current position of Serbia as very attractive for foreign direct investment as a part of the proceeds from the collection of Appropriations and sales focus in railway stock;
- The position and importance of the Corridor X to the railway significant role in relation to other modes of transport;

Threats:

- High percentage of little educated or uneducated population of the developing awareness of the advantages of rail transport which can cause misunderstanding and resistance;
- Lack of trust beneficiaries in state-owned enterprises as regards the level of service and safety;
- The economic instability that is reflected in the high rate of unemployment and a low standard of living which may have the effect of resistance and very low interest for the service;

Competition can be a significant factor, starting with their own cars and to use the bus and air traffic. It can be concluded that the basic prerequisites for the implementation of the project have not been fully met and that there is a great activity and that is to define certain important factors in the process. Thus, there is an interest of the state and the ministry to meet basic standards in rail transport.

Analysis of the competitive environment

The railway is long in history had primacy in the transportation of goods. Railways have transported huge quantities of cargo at a time when it was unthinkable to use road transport for these purposes. Thus, the railways had a monopoly on the transport market because of the lack of development of road transport.

However, with technological advances, gradually developed and road transport (road funds, road networks, mass-creating transportation companies) and has become a dangerous competitor to the railways. On the other hand, a large national railway administration is not timely adapt to these changes in the transport market because the state is guarded existence.

This trend of road traffic has led to a gradual decrease in the share of railways in the transport market transport of goods and passengers. Year after year, the railroad had a smaller and smaller share of the market. This is particularly pronounced in Europe since the beginning of the seventies of the XX century.

DEFINING THE ROLE OF MARKETING INSTRUMENT MIX- MARKETING STRATEGY

Based on scientific literature, electronic sources, benefits for railroad tourism, development of railway network, state capacity to transport tourists, a special tourist industry, based on the analysis of the railway and its competitors was determined that railways can increase in price increase participation in the tourism market, increase competitive advantage and increase revenue to operate profitably.

The strategy is reflected in the modified instruments with a marketing mix that includes; quality of the offered services, distribution, or sale of services, promotion services, which includes the method of acquiring the target market and the price of the service as a final result of the planned income.

- Quality of service is defined on the basis of user services to meet their needs. Quality of service is reflected in, the reliability of transport which means meeting the requirements of the service user, service flexibility, which means the ability to adapt to customer requirements rail service, the accuracy of the duration of the service means that the service that is already pre-prescribed schedules achieved and efficiency that should be characteristic of all large systems including railways.
- Distribution or method of sale is a very important part and is reflected in the cell and train tourism organizations as well as retail outlets. Railway tourism organizations are represented only in the major cities and tourist centers. Train stations are deployed in a network where the user can enter into a contract of carriage.
- Promotion is an important part of the way to inform service users. The presentation needs to include a previously prepared service. Channels for promotion are: media center at the railroad, call center, sending SMS messages, railway magazines, railway poster, brochures and flyers, cellular performed, places intended for commercial.
- Price as the main instrument of the marketing mix is an important segment for both railroads, as well as for consumers. Competitor Analysis determined that the low price of railway services in relation to road operators, in some cases up to 50 %.

CONCLUSION

To railroad operated effectively and efficiently, it must use modern scientific discipline. Marketing strategy is the science and art of using different ways to achieve the goals of the organization. Marketing strategy involves the rational response of the events in the environment in which it carries out its business activities. The railway has long been faced with the problem of competition in the market such as a specificity when compared to other industries that makes its business processes, is producing and selling services in markets with different conditions (for relations, internal and international traffic, steam, diesel or electric traction...), to a large dependence of the work of development and structural changes in the economy and foreign trade.

Application of marketing on the railway is still in development, so I can not with high confidence and claim to predict relevant results. The international organization has a lot of good examples that show the breadth and capabilities in the near future can be realized using modern scientific discipline, marketing. The problem to be investigated and supporting research that leads to solving the problem are related specifically to the railway.

The expected results of the research have contributed to defining marketing strategy, with emphasis on price policy that will offer the railways to achieve in the near future, to increase its revenue and competitive advantage in the market services. Based on the results we obtain information that directly affects the formation of marketing strategy and pricing policy. From the above it in the previous section, it can be concluded that the railways have a great opportunity to increase the price of transport services in the market. The conclusion is that our railways primarily to marketing

concept , which is reflected in the cooperation with other tourism organizations in the country and abroad, increasing the capacity to transport tourists and repairs passenger coaches almost all types to meet the needs of travelers and tourists. Condition of the track and the entire infrastructure is in very poor condition, and in spite of a strong effort that makes rail in recent years, can not be solved without larger interests of the state and without its direct investment. As for the benefits of traveling by train, it was found that almost every category of passenger enjoys a kind of concession to international traffic, as well as international, with less effort and good financial resources, can throw on top of the traffic on your wanted. For a great compliment to our railways after all these problems over the past few decades, managed to maintain regular traffic, especially during periods where there was minimal investment and almost did it and it was not. It was also found that there are large domestic companies that railways can contribute to the business, not only as carrier services, as well as a news service of their advertisements and information about the way of business.

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THE INSURANCE MARKET IN SERBIA IN THE CONDITIONS OF THE WORLD ECONOMIC CRISIS

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ABSTRACT

Deep recession, as the basic characteristic of macroeconomic ambient in Serbia where insurance companies do business, is the result of both domestic socio-economic and the world economic crisis. Insurance development represents a favorable field for advancing the national economy because, besides its primary functions (protection of policyholders and compensation for damages in these cases), insurance carries out the secondary function reflecting in the mobilization of free resources (life insurance, before all). Collected money resources can be used both in solving problematic economic questions and in the process of stimulating national economy development. Adopting the Insurance Law, great changes have been started on the Serbian insurance market. The new Law clearly regulated rules that have contributed to the trust of citizens in the sector of insurance, which had missed for years because of economic and political instability in the country. Insurance companies, as institutional investors, are important participants on the financial market, on the capital market, before all. Their significance and activities can be seen in both providing financial stability and strengthening competition on the financial market. In the future, insurance companies can easily take over the position of leading financial investors because they possess a large amount of capital (measured now not by million, but billion Euros), invested in different segments of financial market. Considering the dynamics of the world insurance development in the last decade, we can notice the increase of insurance share on the world market relating to other financial institutions.

Key words: Insurance, insurance companies, insurance market, Serbia.

INTRODUCTION

Deep recession, as the basic characteristic of macroeconomic ambient in Serbia where insurance companies do business, is the result of both domestic socio-economic and the world financial crisis. Before passing the Law on Insurance and establishing the Supervisory board in the National Bank of Serbia, the home insurance market had been characterized by unfair competition, non-transparency of financial reports, non-existence of the unified insurance statistics, and small number of products to insure and the undeveloped segment of life insurance.

Adopting the Law on property insurance and life insurance, bank law, law on exchange transaction, law on payment operations, law on securities and other financial instruments, a good starting basis to function the financial system in Serbia has been defined. After the new Insurance Law went into effect, the National Bank of Serbia has taken control and supervision over insurance companies, which was done by the Ministry of Finance until May 2004. Domicile insurance business, besides insurance laws, is regulated by other legal obligations, bylaw rules and regulations established by the National Bank with a view of protecting the insured and improvement of insurance activities.

Besides, the new Law clearly issued rules which contributed to the citizens' trust in the insurance sector which had not existed for years before that because of political instabilities in our country.

The insurance law restricted all activities in life insurance and non-life insurance, insurance and reinsurance, capital census was increased for all the forms of insurance, and the entry of foreign investors was enabled. According to this Law, an insurance company can get work permit only by the National Bank of Serbia (to do life and non-life insurance business).

Serbia actively works on EU integration. One of the conditions to become a member is adapting the home regulations to the EU directives. To the opinions of experts and lawyers in the field of insurance, the current home Insurance Law is basically high-quality. However, some corrections will have to be done in order to integrate our country in EU insurance market. In other words, if countries want to modernize their legislature in the field of insurance, it is important to know and harmonize regulations with the European countries, where they have been applied for years. In comparison with the European countries, our insurance law is very humble. It is undisputable that the European legislation has helped insurance development not only in EU countries but also in the other countries which have accepted this legislature in the field of insurance. To enter EU, Serbia must accept the following four conditions: possibility of free entrance of foreign investors, suspension of price control, regulation of necessary capital minimum and establishing a professional supervisory body in the sector of insurance.

THE INSURANCE MARKET IN SERBIA IN THE CONDITIONS OF THE WORLD ECONOMIC CRISIS

The whole industry will experience a humble growth, if possible, and, in fact, it leads to market reduction. Insurance industry usually suffers when economy weakens. The presence of insurance remains at the extremely low level and it has the tendency to continue it. Sooner or later, market consolidation will follow. The potential of life insurance growth is noticeable, but because of the lack of possibilities for investment, companies should seriously think about future obligations and how to harmonize them with their own resources.

Passing the new Insurance Bill defines and regulates procedures and actions that precede insurance contracts signing which are not and should not be the object of the Insurance Law. It is impossible to solve adequately the question of regulation of insurance contracts by the law which regulates status questions. (Insurance Law), these questions must be solved by issuing the Law on Insurance Contracts.

Having in mind the tendencies of participants on insurance market where job division on life and non-life insurance has not yet been done, it is necessary to change regulations in the way which will provide equal participation of all the companies on insurance market. The proposal of change for repealing these obligations, and which do not regulate the status of companies that filled obligations and divided jobs on life and non-life insurance, obviously favors companies which have not yet done this job division. Therefore, it is necessary to strengthen regulations which will unite functions and solve the tax question between the job of life and non-life insurance in companies which have carries out these obligations and divided the jobs. In addition, it is necessary to enable companies merging which have the same stockholders, i.e. if these stockholders have control participation in both companies. In accordance with merging of these companies, it is necessary to pass regulations that the National Bank of Serbia will issue a united license for doing all kinds of insurance which were valid individually for companies. The insurance sector in Serbia is still undeveloped and is considerably under the average of EU member countries. Some indicators on market insurance development speak in favor of it, i.e. the relationship of the total premium and GDP, and the total premium per capita. Namely, according to the participation of premium in GDP in 2001 of 1.8% (1.6% in 2004), Serbia takes the 68th place in the world, while this indicator for EU countries is even 7.8%. However, compared to the group of developing countries with the average of 2.7% and the Central and East European countries with the average of 2.6%, and taking into consideration that the countries as Romania and Turkey lag behind Serbia, we can draw conclusion that Serbia is at the satisfying level.

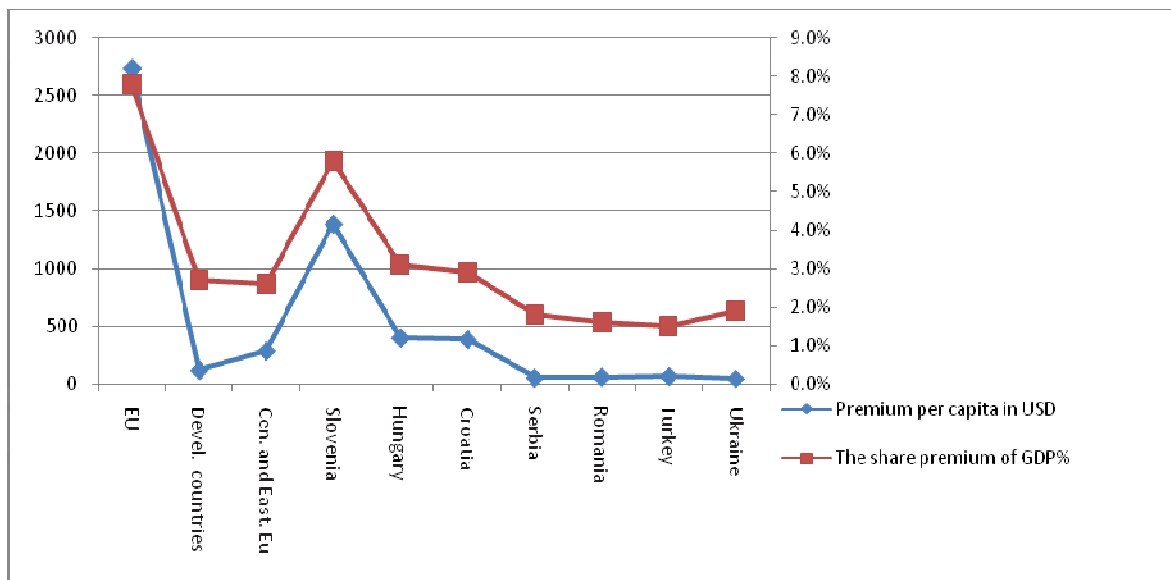


Figure 1: Comparison of indicators of development of the insurance sector in the 2011th

According the premium per capita in 2011 of \$98 USD or €75 (in 2004, \$52 USD was €38); Serbia takes the 67th place in the world. The same indicator for 27 EU member countries amounts to \$2.739 USD, for Central and East European countries is \$285USD, and for developing countries it is \$118USD. Switzerland is first with \$7.908USD, and then Holland and Denmark Kingdom follow, while Slovenia with \$1387 USD takes 28th and Croatia with \$386 USD takes 47th place. Insurance market development in Serbia, measured by the premium growth, shows keeping the mild positive trend.

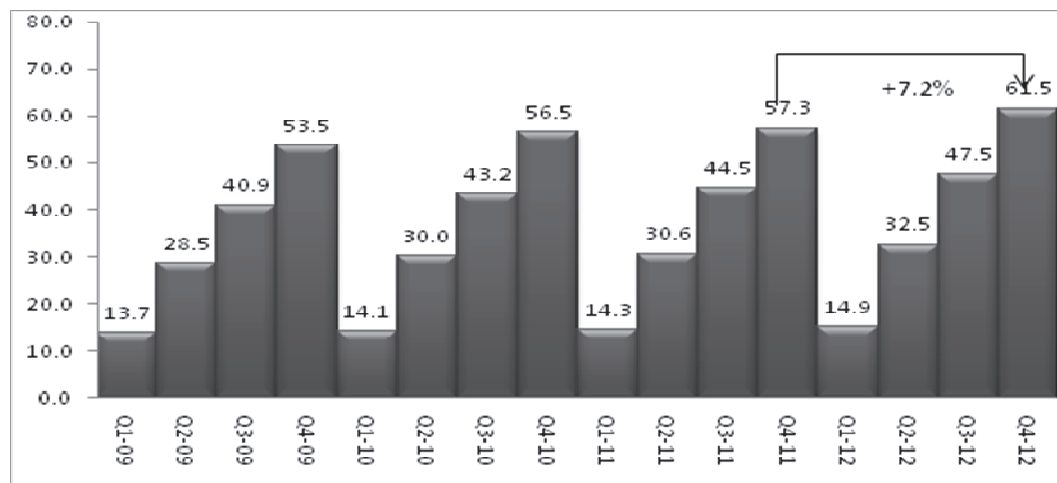


Figure 2: Quarterly motions its full complement of premium (2013)

In the total financial sector (banks, insurance, leasing and voluntary superannuation funds), insurance to the balance sum, capital and the number of employees takes the second place. In the balance sum of the financial sector in 2012, which amounted to RSD 3.108 billion, banks participate with 92.6%, and insurance companies with 4.5%.

In 2012, there were 28 insurance companies in Serbia and their number did not change in relation to the last year. 28 companies are engaged exclusively in insurance business, and only four companies are in reinsurance business. There are seven companies engaged in life insurance, 11 engaged in non-life insurance, and six companies engaged in both insurance.

According to the property structure of capital, 21 of 28 companies are in foreign property, while seven companies are domestic property. By successful process of privatization in the last period, as well as the entry of foreign companies by green field licenses (13 in 2005), foreign insurance companies report (since 2007) in 2012 prevailing participation in life insurance premium with 90.8% non-life insurance premium with 57,6%, total property with 68.8%and in the number of employees with 65.5%.

Table 1: Share in total financial sector

	Bank			Leasing			Insurance			VPF		
	2010.	2011.	2012.	2010.	2011.	2012.	2010.	2011.	2012.	2010.	2011.	2012.
Balance sheet total	91,8	92,4	92,6	3,6	2,8	2,3	4,2	4,4	4,5	0,4	0,4	0,5
Capital	92,5	93	93,2	1,5	1,4	1,2	6	5,7	5,6			
Employees	71,8	71	70,3	1,1	1,2	1,1	26,8	27,4	28,3	0,3	0,4	0,4

THE PORTFOLIO STRUCTURE OF INSURANCE COMPANIES

In 2012, insurance companies realized the total premium of RSD 61.5 billion (€540 or \$713 USD); it is 7.2 % more in relation to the premium in the previous year. In the premium structure, participation of non-life insurance amounted to 80.7%, while the participation of life insurance increased from 17.4% in 2011 to 19.3% in 2012, thanks to the realized increase of 18.6% in relation to the previous year. In the structure of the total portfolio, only five kinds of non-life insurance (accident insurance, automobile insurance, fire insurance, other property insurance and car insurance) participate with 71.3%. Car insurance (as compulsory insurance) kept the leading participation in the total premium with 31.5% in 2012, which was taken over from property insurance.

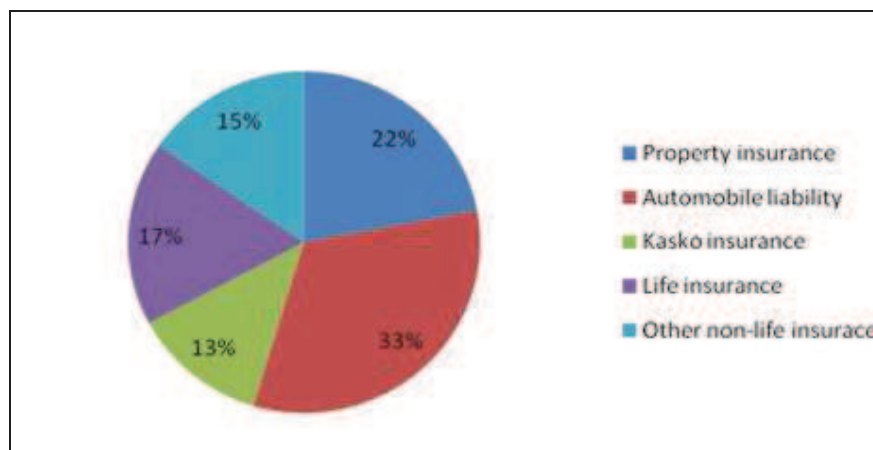


Figure 3: Total insurance premium (2012)

After slowing positive trends in the sector of insurance in Serbia in 2011, first of all in the form of decreasing premiums, both compulsory (car insurance) and lump sum insurance (full car insurance), some generally positive trends are noted in 2012.

In relation to the previous year, car insurance reported the growth of 18.6%. On the other side, full car insurance, the kind of insurance which reported the most significant increase of participation in 2008, continued the trend of fall both the premium of 3.5% and the participation with 11.3% and it is near the participation of 11%, insurance reported in 2004.

Grouping insurance companies according to the participation in the total premium is illustrated in the following table. It is done in three groups. The first group includes two companies with over

15% in the total premium. The second group includes five companies with participation less than 15% and the third group includes 117 companies with participation of less than 3%. It points to the continuation of trend to reduce the portfolio concentration. The same is confirmed by the use of the Herfindal-Hirschman index, according to which the market concentration, firstly reported as moderate in 2007, remained moderate in 2012, too, with the value of 1.132.

Table 2: Participation of insurance companies in total premium(peer) group

Group		2006.	2007.	2008.	2009.	2010.	2011.	2012.
I	Share in%	63,4	59	69,6	65,8	62,9	63,1	49,1
	Number of insurance companies	2	2	3	3	3	3	2
II	Share in%	21,6	22,1	19	23,2	24,7	25,4	35,5
	Number of insurance companies	3	2	4		5	5	5
III	Share in%	15,1	18,8	11,4	11	12,4	11,4	15,4
	Number of insurance companies	10	14	14	14	14	15	17

It is interesting that in 2012, considered according to the cited groups, the biggest part of the total premium of non-life insurance of 52.4% belongs to the first group of ranked companies, while the biggest part of the total premium of life insurance of 46.4% belongs to the second group.

CONCLUSION

The key fields, with which the insurance companies should deal, especially at this moment, are corporative management, advancement of risk management, advancement of techniques for investment evaluation, strengthening transparency, strengthening good business practice, fair relationship to clients and education of potential policy holders. In this way, we shall contribute to strengthening trust of the insured creating conditions for the development of this segment of the financial system.

A special attention should be paid to the importance of consistent obeying the rules in the field of compulsory traffic insurance, especially in regard to prompt indemnity, costs for insurance carrying out and the application of the bonus malus system. In addition, there are education and preparation for the implementation of methodological frameworks for risk management, Solvency II. It is the essence of the Directive II, according to which the policy holders are required to consider and quantify all kinds of risks they are exposed in their doing business, as well as the efficiency in risk management. It introduces sophisticated requirements of solvency in order to provide enough capital for risks where insurance companies are exposed. The application of the Directive requirements, according to the new Law on Insurance, is planned after joining the European Union.

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MIXED PRODUCT BUNDLE PRICING PROBLEM: A MATHEMATICAL PROGRAMMING VIEW

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ABSTRACT

Bundle pricing is one of the marketing strategies which enhance seller's profit using different preferences of customer segments of the market. In this regard, this paper addresses bundle pricing problem in which customers buy either individual products or their bundles. To do so, a mixed binary nonlinear program is proposed to maximize seller's net profit and customers' surplus. In the developed model, sub-additive/ super-additive bundle prices, product procurement cost, bundling cost, and disposal cost of unwanted components are assumed. The proposed model is first linearized; next, a hybrid ant colony optimization- genetic algorithm is developed to cope with intractability of the developed model due to the involved binary variables.

Key words: mixed bundle pricing; marketing; mixed-binary nonlinear programming; profit maximization; consumer surplus maximization

INTRODUCTION

Bundle pricing is one of the most prevailing pricing strategies which have been applied so far in the field of products and services. As defined by Guiltinan (1987), "bundling is the practice of marketing two or more products or services in a single package at a special price". This strategy has been deployed in diverse fields of delivering products or services among which the most promising ones might be tourism, telecommunication, software packages, music CDs, online shopping and restaurants. In this regard, the main advantages which are attainable through bundle pricing are increasing market share and sales, improving customer services, reducing logistics and transaction costs, applying economies of scale, etc (Yang and Ng, 2010). In order to take advantage of bundle pricing, one might present the products solely in the forms of different bundles. This case is called pure bundling, whilst it is possible to present them without any bundling options (as is called pure component). Additionally, one of the most applicable cases is related to the conditions in which customer can buy either pure components or any possible bundles of the components. This case is called mixed bundling (Linde, 2009). This paper addresses bundle pricing problem in mixed bundling environments. Upon the facts of bundle pricing, customers are categorized into customer segments whose reservation prices are distinct. Buying decision of a component or a bundle is made upon its relevant consumer surplus which is equal to reservation price minus seller's quoted price. Customer buys a component or a bundle, if its relevant consumer surplus is positive upon which his final choice is the one with the highest level of consumer surplus.

Applications of mathematical programming in the field of bundle pricing are handful; only some instances are found among the published papers of the field (Hanson and Martin, 1990; Wu et al.,

2008; Yang and Ng, 2010). Hanson and Martin developed a mixed-integer linear program to determine optimal bundle prices of substitute products. In their developed model, they neglected procurement and bundling costs. Also, one price was determined for every possible bundle offered to all customer segments of the market (no price discrimination is allowed). A mathematical program was developed in (Wu et al., 2009) to optimize bundle prices with respect to the bundle sizes. In other words, cost parameters were defined upon number of components in a bundle; hence, the bundle price was determined upon this number (larger the bundle higher its price). They tackled their developed model using Lagrangian relaxation. Yang and Ng (2010) developed a mixed-integer mathematical formulation in which bundles were selected by the customer whose consumer surpluses were maximized. In their developed model, discounts were decided when bundles were offered (discounts were decision variables of their developed model).

Procurement costs of components and bundles play a key role in modeling, analyses and results of the considered problems as shown in some papers in different market conditions with various cost assumptions (e.g. Yan and Bandyopadhyay, 2011; Sundararajan, 2004; Vankatesh and Kamakura, 2003). In this regard, the proposed model considers two types of associated costs; procurement cost of components which is related to disposal cost which has been mostly neglected in the literature (Hanson and Martin, 1990). Also, the proposed model takes into account bundling cost of components to cover more realistic assumptions. Remaining of the paper is structured as follows. Next section explains the proposed model. Section 3 describes the developed algorithm in order to tackle the proposed models, upon which conducted numerical experiments are reported in the section. Finally, conclusion and future research directions are provided.

PROPOSED MIXED BUNDLE PRICING MODEL

In this section, a mathematical model is developed in order to determine the optimum bundle which is presented to every customer segment as well as their optimum prices. In this regard, two objective functions are sought, of which one seeks to maximize seller's net profit and the other maximizes consumer surplus of different customer segments. In addition to the development of the proposed model, it is attempted to linearize it in order to reduce complexity of the developed model. Linearization steps are not reported in this paper for the sake of brevity. As discussed before, the main contribution of the proposed model is considering assumption of disposal cost which violates subadditivity of the bundling costs. In this regard, assumptions and nomenclature of the proposed models are first described.

Assumptions

1. A monopoly seller presents a list of possible product bundles as well as product pure components (mixed bundling strategy);
2. Degree of complementary is defined for bundles; in other words, this parameter is defined for any couples of products and bundles;
3. Degree of complementary is assumed constant for all customer segments;
4. Bundles and pure components are selected by the customer, iff consumer surplus of the bundle is positive;
5. Customer selects bundle with the maximum possible consumer surplus among the possible bundles;
6. Procurement costs are assumed with respect to every component of every bundle; in other words, procurement costs consist of two parts of which one represents procurement cost of components and the other one indicates bundling cost of the components;
7. Customer might buy either one bundle or nothing;
8. Consumer surplus might be either positive or negative. Therefore, buying decision is made upon total consumer surpluses of the bundles;
9. Disposal cost is assumed for some components in some bundles, resulting negative consumer surplus of the bundles; and

10. Demand information is considered in the reservation prices of components and bundles, as introduced in Guiltinan, (1987).

Indices

i	Index of component ($i=1, \dots, N$)
j	Index of bundle ($j=1, \dots, J=2^N$)
k	Index of customer segment ($k=1, \dots, K$)

Parameters

r_{ik}	Reservation price of component i from customer segment k point of view
$\Gamma_k = [\theta_{jk}]$	Degree of complementary for components in bundle j from viewpoint of customer segment k
c_{jk}	Cost of supplying one bundle j to customer segment k
η_k	Number of customers in segment k

Decision variables

x_{jk}	1= a customer from segment k buys one bundle j ; 0= otherwise
p_{jk}	Price of bundle j offered to customer segment k
cs_k	Consumer surplus of customer segment k
φ_{jk}	Auxiliary variable which indicates if customer segment j buys bundle k , it yields positive consumer surplus for customer segment k

Mathematical model

$$\text{Max} \sum_k \eta_k \sum_j x_{jk} (p_{jk} - c_{jk}) \quad (1)$$

$$cs_k = \max_j \left\{ (1 + \theta_{jk}) \sum_i r_{ik} - p_{jk} \right\} \quad \forall k \quad (2)$$

$$\varphi_{jk} \cdot \left[(1 + \theta_{jk}) \sum_i r_{ik} - p_{jk} \right] \geq 0 \quad \forall j, k \quad (3)$$

$$x_{jk} \leq M \cdot \varphi_{jk} \quad \forall j, k \quad (4)$$

$$\sum_j x_{jk} \leq 1 \quad \forall k \quad (5)$$

$$cs_k \geq 0 \quad \forall k \quad (6)$$

$$p_{jk}, \varphi_{jk} \geq 0, x_{jk} \in \{0, 1\} \quad \forall j, k \quad (7)$$

Objective function (1) attempts to maximize net profit of the seller with respect to the quoted prices, bundling costs, and the population size of every customer segments. Constraints (2) consider maximization of consumer surplus with respect to every customer segments. Constraints (3) and (4) determine what bundles are the choices for different customer segments, since choices of the segments are the bundles yielding positive consumer surplus. Constraints (5) guarantee that every customer segment selects at most one bundle among the possible bundles. Finally, Constraints (6) and (7) define variables of the developed model. The proposed model (1)-(7) consists of some nonlinear terms which are linearized. The linearization steps are not described herein for the sake of brevity.

NUMERICAL EXPERIMENT

Although the developed model is linearized, binary variables of the linear model boost complexity of the developed model. In this regard, a hybrid Ant Colony Optimization (ACO)-Genetic Algorithm (GA) is developed to cope with the complexity of the model.


```

Generate initial solution randomly
best solution= OFV (random solution)
l=1
Do
  for t=1 to number of planning periods, do
    for i=1 to number of components, do
      for k=1 to number of customer segments, do
        Calculate attractiveness
        Update best solution
        Perform inversion operator
        if OFV (inverted solution) < OFV (best solution)
          Update best solution by means of inverted solution
        if OFV(current solution) > OFV (best solution),
          Disrupt current ant direction
      end for
    end for
    Update best solution
    Perform mutation operator on best solution
    If mutation yield better solution
      Update best solution using the performed mutation
    end for
    Update pheromone
    l=l+1
  while l=max number of iterations

```

Figure 1: Pseudo-code of the developed ACO-GA

Moreover, experimental analyses are conducted so as to validate applicability and feasibility of the proposed model as well as performance of the developed meta-heuristic algorithm. To do so, twenty sizes of test problems are selected, each of which comprises thirty randomly generated samples (Table 1). It is noted that the couples of numbers in Table 1 indicate the intervals in which parameters are randomly generated upon uniform distribution function.

Table 1: Sample problems for the proposed mixed bundle pricing model

Problem set	$N \times K$	η_k	r_{ik}	Γ_k	c_{jk}
1	2×2	8	(25,50)	(-0.5,0.5)	(5,20)
2	3×2	8	(25,50)	(-0.5,0.5)	(5,20)
3	4×2	10	(25,50)	(-0.5,0.5)	(5,20)
4	4×3	12	(25,50)	(-0.5,0.5)	(5,20)
5	6×3	14	(25,50)	(-0.5,0.5)	(5,20)
6	8×3	14	(25,50)	(-0.5,0.5)	(5,20)
7	8×4	15	(25,50)	(-0.5,0.5)	(5,20)
8	10×4	15	(25,50)	(-0.5,0.5)	(5,20)
9	10×6	15	(25,50)	(-0.5,0.5)	(5,20)
10	18×8	20	(25,50)	(-0.5,0.5)	(5,20)
11	18×10	20	(40,70)	(-0.5,0.5)	(10,30)
12	18×12	24	(40,70)	(-0.5,0.5)	(10,30)
13	25×12	24	(40,70)	(-0.5,0.5)	(10,30)
14	25×14	24	(40,70)	(-0.5,0.5)	(10,30)
15	25×14	28	(40,70)	(-0.5,0.5)	(10,30)
16	40×24	28	(40,70)	(-0.5,0.5)	(10,30)
17	40×28	32	(40,70)	(-0.5,0.5)	(10,30)
18	50×35	32	(40,70)	(-0.5,0.5)	(10,30)
19	75×50	32	(40,70)	(-0.5,0.5)	(10,30)
20	100×50	40	(40,70)	(-0.5,0.5)	(10,30)

The six hundreds generated problem samples are solved using both GAMS 22.1\ DICOPT software package and the developed hybrid algorithm which is coded in MATLAB 7.0 and implemented on an Intel® 2.56 GHz personal computer with 4 GB RAM. The solution procedure has been interrupted after 90 minutes. In the cases in which the solver obtains the solution in less than 90 minutes, the reported solutions are the global optimal for GAMS software and near optimal for the developed meta-heuristic. In this regard, the obtained results of GAMS and the developed hybrid ACO-GA are presented in Table 2 for the defined problem sets. Also, optimality gaps of the developed algorithm are calculated as $gap(\%) = \left(\frac{(Best - Global\ optimal)}{Global\ optimal} \right) \times 100$.

Table 2: The obtained results of the problem sets for the proposed mathematical model

Problem set	GAMS		ACO-GA			%GAP	
	Best	Average	Best	Worst	Average	Best	Average
1	416*	472	416	491	472	0.00	0.00
2	610*	698	610	709	698	0.00	0.00
3	974*	1069	974	1132	1069	0.00	0.00
4	1870*	2015	1881	2192	2031	0.59	0.79
5	3091*	3281	3101	33891	3301	0.32	0.61
6	4721*	4994	4741	52301	5026	0.42	0.64
7	6629*	6934	6694	7189	7014	0.98	1.14
8	7810	8103	7872	8340	8194	0.79	1.11
9	11645	12208	11920	13192	12675	2.36	3.68
10	39352	41482	39829	44891	42502	1.21	2.40
11	45815	47291	46291	50012	48516	1.04	2.52
12	57902	60421	59026	65781	61821	1.94	2.26
13	71137	75941	72913	82191	78216	2.50	2.91
14	77806	80472	79302	87612	82294	1.92	2.21
15	82390	85925	84392	90178	88615	2.43	3.04
16	94174	100742	93817	105892	101791	-0.38	1.03
17	98506	104836	97273	113891	104914	-1.25	0.07
18	134692	141892	131892	157209	142371	-2.08	0.34
19	168321	172938	165906	189391	175901	-1.43	1.68
20	187492	194612	183294	207891	195781	-2.24	0.60

* Global optimal

As presented in Table 2, optimality gaps of the developed algorithm do not exceed almost 3.5 percent. Also, some smaller samples show the same results between GAMS and the developed ACO-GA, while the developed hybrid algorithm yields better solutions for the large sample problems. The obtained results also confirm performance of the developed algorithm.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

This paper considered the mixed product bundle pricing problem in which different customer segments had different reservation prices for the products. Also, products had different pre-defined levels of complementary degree upon which bundle reservation prices had been determined to the customer segments. To do so, a mixed binary nonlinear program was proposed; next, it was linearized. The proposed model was intractable due to the involved binary variables. In order to cope with complexity of the proposed model, a hybrid ACO-GA algorithm was developed. In the developed hybrid algorithm, three GA operators crossover, mutation, and inversion were applied to enhance quality of the obtained solutions. A sample of 600 test problems were randomly generated which were solved using both GAMS and the developed hybrid ACO-GA upon which numerical experiments had been conducted. The obtained numerical results showed applicability and feasibility of the proposed models as well performance of the developed hybrid algorithm.

In order to continue research direction of this paper, three directions are suggested. First, proposing a heuristic algorithm might be theoretically interesting for the proposed bundle pricing mixed binary model. Additionally, it is highly recommended to capture diverse conditions of bundle reservation prices upon the component prices. In this regard, some marketing studies are inevitable and their relationship should be taken into account in the proposed mathematical model in terms of mathematical formulations. Last but not least, other market power settings are worthwhile to study, such as duopoly, oligopoly and competitive markets.

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DYNAMIC BI-PRODUCT BUNDLE PRICING PROBLEM

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ABSTRACT

This paper addresses bundle pricing problem of two products in a stochastic environment so as to maximize net profit of a retailer. In the considered problem, it is assumed that customers are received upon a Poisson distribution and their demands follow a bi-variate distribution function. Also, it is assumed that products are sold individually or in the form of a bundle, which are offered from an initial stock of the products. To tackle the problem, a stochastic dynamic program is developed in which optimum values of the initial stock and order quantities of every planning period are determined. Moreover, prices of the individual products and their bundle are optimized. Also, the proposed dynamic program tackles bundling/ unbundling decisions taken in every planning period. A numerical example of a two planning period horizon is considered to validate the proposed model.

Key words: bundle pricing, marketing, stochastic dynamic programming, product bundling

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SOCIALLY RESPONSIBLE MANAGEMENT

A Look at CSR Today

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ABSTRACT

The public sphere is showing a growing awareness that the actions business organizations take have unintended consequences outside the business, and the business has a responsibility to address them. This paper tries to present the key aspects of corporate social responsibility (CSR), to suggest and analyze the reasons for organizations to implement a socially responsible management, and also takes a look at skeptic angle of some authors. There are also fresh examples of good and bad behavior of some companies.

Key words: CSR, social responsibility, ethics, charity, philanthropy

INTRODUCTION

It is easy to be skeptical and distrustful about the whole concept of "Corporate" social responsibility. Can a business organization be truly socially responsible given that their ultimate goal is to make profit? The term Corporate Social Responsibility (CSR) generally implies that companies voluntarily take over responsibility for different ethic, social, economic, ecological and cultural issues (Đorđević & Bogetić, 2008). But why would they? For all we know, a corporate executive in a company is just an employee of the owners of the business and he has a direct responsibility to his employers to make as much money as possible while conforming to the basic rules of the law. So, from this point of view, there is no logical reason to think that this corporate executive has any "social" responsibilities (Friedman, 1970). As a manager of a company, CEO is there to make profit for the owners. If he doesn't, it must mean that he acts in some way that is not in the best interest of his employers. So, if management of a business enterprise, say, decides to help build a hospital for the local community wouldn't they basically spend someone else's money for a purpose that doesn't in any way help company to survive? And if that's really the case, why do some companies go and give away big money to society?

THE CASE FOR SOCIALLY RESPONSIBLE MANAGEMENT

Activities of a company may affect many interest groups, some in a positive way, and other in an unwanted way. All of these parties may be considered stakeholders, from ethical point of view. These may be: employees that work for the company, citizens of the local communities, competition on the market, suppliers, local and state authorities, various non-governmental organizations, media... Obviously, it is desirable for a management board to identify and address as many stakeholders' interests as possible, and also to try and predict their behavior and reactions to whatever moves company may make. In a business environment which is expanding and changing so blindingly quickly, the number of stakeholders is ever-growing. Globalization and information revolution led to increase of general awareness about many social issues, and the public is nowadays much more sensitive about ethical questions than it was before. It is now beyond doubt that activities of business enterprises, especially big corporations, affect the quality

of our lives, and affect society as a whole (Vlastelica Bakić et al, 2012). Today, global and local societies keep a close-eye at every company's activity, and in an information era it is very hard to keep anything secret, so there is apparently also a good sense for companies to come straight and be transparent about their dealings and affairs. As Warren Buffet said: "It takes 20 years to build a reputation and five minutes to ruin it. If you think about that, you'll do things differently" (Claessens, 2011).

KEY ASPECTS OF CSR

So, what does actually mean for a company to be "socially responsible"? What actions does that include? Is it enough to keep your activities within the rules imposed by law? Or is it about transparency of business? Environmental care and awareness? Healthiness and quality of products? Care about employees? Ethical behavior with competition? Well, different authors have different classifications, and there is no general consensus at this moment, but we can say they would all probably agree in one thing: CSR is all of the above, and more.

One of the most prominent frameworks for CSR is A. Carroll's pyramid of social responsibilities. He suggested that four kinds of social responsibilities constitute total CSR: economic, legal, ethical and philanthropic. The pyramid of CSR depicts the economic category as the base (the foundation upon which all others rest), and then built upward through legal, ethical, and philanthropic categories (Carroll, 1999). **1) Economic** - In order to help development of the community, companies, regardless of their size, must be profitable. All other business responsibilities are predicated upon the economic responsibility of the firm (Carroll, 1991). **2) Legal** - Secondly, companies must obey the law, imposed by the state in which they are conducting their business activity. **3) Ethical** -Although economic and legal responsibilities embody ethical norms about fairness and justice, ethical responsibilities embrace those activities and practices that are expected or prohibited by societal members even though they are not codified into law. Ethical responsibilities embody those standards, norms, or expectations that reflect a concern for what consumers, employees, shareholders, and the community regard as fair and just. **4) Philanthropic** responsibility stands at the top of the pyramid and it represents various donations, sponsoring culture, sport, education, etc. (Veljković & Petrović, 2009) This is where companies surpass the expectations of the society, making truly great benefits for the community.

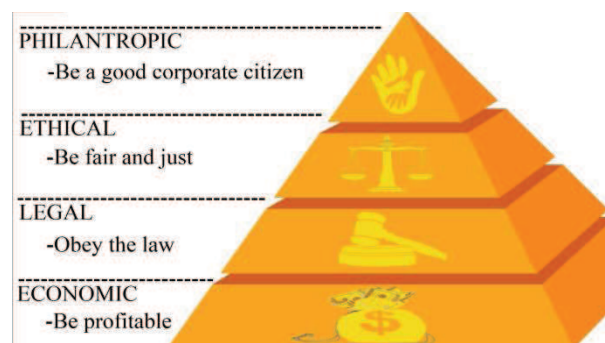


Figure 1 – Pyramid of corporate social responsibility

CSR can also be classified by orientation towards the position of the stakeholders – in which case we can differentiate internal and external CSR. Internal responsibilities are those that apply to stakeholders inside the company: employees and owners. They include: sustainability, profit, health and safety, human resources (enabling and promoting education, training and career advancement). External responsibilities would be those that affect: business partners, suppliers, consumers, competition, local community and other stakeholders outside the company (Atanacković, 2011).

Classification that is also found among some authors is the one that differs three dimensional aspects of responsibility: Economic aspects, social aspects and environmental and ecological aspects. Economic aspects include: 1). The multiplier effect – employees of the well performing company get good salaries, from which they purchase goods and services, as well as pay taxes. These activities fuel the local service industry, government programs and the community activities. 2). Contribution through taxes – strategies for lowering tax expenses, though perfectly legal, deprive the community in the area of the company's operation of well-being. Social aspects are: 1). Responsibility towards customers, 2). Responsibility towards employees, and 3). Responsibility towards the community. Environmental aspects – Companies have a responsibility to measure and manage impacts that may include: overuse of natural, non-renewable resources of energy, pollution wastage, degeneration of biodiversity, climate change, deforestation etc. Many companies have found that improving environmental performance may also have beneficial effects on the company itself. Using less material and streamlining processes to create less waste may lower the costs of operation significantly.

CRITICISM

Milton Friedman and others have argued that a corporation's purpose is to maximize returns to its shareholders, and that since only people can have social responsibilities, corporations can just be responsible to their shareholders and not to society as a whole. Although CSR skeptics accept that corporations should obey the laws of the countries within which they work, they assert that corporations have no other obligation to society. Some people perceive CSR as incongruent with the very nature and purpose of business, and indeed a hindrance to free trade. Those who assert that CSR is contrasting with capitalism and are in favor of the free market argue that improvements in health, longevity and/or infant mortality have been created by economic growth attributed to free enterprise (Friedman, 1970). Objectors of this argument perceive the free market as opposed to the well-being of society and a hindrance to human freedom. They claim that the type of capitalism practiced in many developing countries is a form of economic and cultural imperialism, noting that these countries usually have fewer labor protections, and thus their citizens are at a higher risk of exploitation by multinational corporations. Some critics believe that CSR programs are undertaken by some companies only to distract the public from ethical questions posed by their core operations. They suggest that corporations which exist solely to maximize profits are unable to advance the interests of society as a whole (McKibben, 2006). Another concern is that sometimes companies claim to promote CSR and be committed to sustainable development but simultaneously engage in harmful business practices.

Some recent scandals around the globe provided ample evidence that corporate responsibility issues do exist, and are not a product of its critics' imagination. It appears that with all the excitement about profit opportunities some companies are underestimating the importance of ethics and corporate responsibility. Some of the biggest negative CSR examples from 2013 are: 1). Rana Plaza building collapse - Back in April 2013, more than 1100 people, mostly garment workers, died and more than 2000 were injured when the Rana Plaza building collapsed near Dhaka in Bangladesh. This eight-story structure, built and operating in violation of minimal safety standards, held five ready-made garment factories which supplied some thirty European and American clothing brands. The owners of the Rana Plaza building and of the garment factories it held, as well as the multinational corporations which sourced from those garment factories refused to admit their part of the responsibility for this disaster. It has been revealed that the managers of the five factories in the Rana Plaza had ordered the workers to go back into the building to work, despite its evacuation on the previous day due to the appearance of cracks in the walls. 2). Apple's tax avoidance - Corporate tax avoidance issue exploded onto the public consciousness when Apple's CEO Tim Cook was forced to testify to a Senate committee in Washington back in May of 2013. The company had avoided paying literally billions of dollars in tax by exploiting various loopholes in international tax treaties and funneling its European profits through a shell company in Ireland. All completely legal, of course, but hardly what the public expects of a good corporate citizen. 3).

NSA spying –Without any doubt, Edward Snowden's whistleblowing on the US National Security Agency's (NSA) mass surveillance programs was the story of 2013. Nothing else even got close. Among other things, it has been revealed that telecom companies like Verizon have been handing over all call records (or "metadata") to the NSA about cell phone calls made in the US. We also know that none of these companies ever sought to challenge the legality of the action. Also, it is now known that internet giants Google and Microsoft received millions of dollars from NSA, but their role in this affair have not yet been clear. 4). JP Morgan's \$13bn misconduct settlement - A whopping \$13bn fine landed on JP Morgan for misleading investors in the scheme of mortgage-backed securities in the lead-up to the financial crisis. To date, it is the biggest settlement ever between the US government and a corporation, and will come as some relief to those who have viewed most of the finance sector giants as getting away with the crisis relatively unscathed. 5). Europe's horse meat scandal - At the beginning of 2013, the big news was all about horse meat turning up in products it wasn't supposed to be in. Like those clearly labeled as "beef". The scandal started in the UK, quickly spread to a suspect supplier in Ireland, and soon rocked much of Europe. Customer trust rapidly evaporated as it became clear that effective oversight of the food industry was sorely lacking. Companies acted quickly to withdraw potentially contaminated products and shore up confidence but further revelations of large scale criminal activity in the food supply chain will do little to restore trust in a thoroughly compromised industry (Crane & Matten, 2014).

OPPORTUNITIES

For many years, corporate executives have struggled with the issue of the firm's responsibility to its society. Early on it was argued by some that the corporation's sole responsibility was to provide a maximum financial return to shareholders. It became quickly apparent to everyone, however, that this pursuit of financial gain had to take place within the laws of the land. Though social activist groups and others throughout the 1960s advocated a broader notion of corporate responsibility, it was not until the significant social legislation of the early 1970s that this message became indelibly clear, as a result of the creation of state agencies for environmental protection, equal employment opportunities, occupational safety and health, consumer product safety, etc. These new governmental bodies established that national public policy now officially recognized the environment, employees, and consumers to be significant and legitimate stakeholders of business. From that time on, corporate executives have had to wrestle with how they balance their commitments to the corporation's owners with their obligations to an ever-broadening group of stakeholders who claim both legal and ethical rights (Carroll, 1991). Contemporary society makes more and more demands upon companies in the direction of defining their social responsibility. On the other hand, companies are absolutely aware of the fact that they have to take an affirmative attitude toward these demands. Corporate ethics has become the supreme demand in all business undertakings. But, there are also great rewards for being a good corporate citizen, and that becomes more and more obvious in recent years, as society goes through historic milestones of globalization and technology and information revolution (Đorđević & Bogetić, 2008). What follows is a review of some good examples of CSR at global level, and also a glimpse at CSR practices from companies in Serbia.

CSR AROUND THE GLOBE – There are many indicators that CSR is becoming one of the most important parts of public perception of companies. Reputation Institute, a private global consulting firm based in New York invited more than 55,000 consumers across 15 markets to participate in a study between January and February 2013 that ranked the world's 100 most reputable companies – all multinational businesses with a global presence. What's notable is that the study showed how willingness to buy, recommend, work for, and invest in a company is 60% driven by participants' perceptions of the company - or its reputation. Three of the seven dimensions that drive reputation (citizenship, governance, and workplace) fall into the CSR category—and analysis shows that 41% of how people feel about a company is based on their perceptions of the firm's corporate social responsibility practices. Financial performance, leadership, products and services, and innovation were the other four parameters. So much of the overall rating of companies was influenced by CSR

parameters that the Reputation Institute decided to create two ranking lists, one for overall rating, and other for excellence in CSR. What’s interesting is that the companies that top the CSR list also are in the top of overall list. “CSR speaks to who the company is, what it believes in and how it is doing business,” says Kasper Ulf Nielsen, executive partner at Reputation Institute. “It’s a core element of reputation and can be used to help establish trust and goodwill amongst stakeholders. [Almost half] of people’s willingness to trust, admire, and feel good about a company is based on their perceptions of the corporate social responsibility of the company, so this is a key tool for companies to use to improve support from stakeholders like consumers, regulators, financial community, and employees” (Smith, 2013).

Rank	Company	CSR RepTrak®
1	Microsoft	72,97
2	The Walt Disney Company	72,83
3	Google	72,71
4	BMW	72,14
5	Daimler (Mercedes-Benz)	70,65
6	Sony	69,49
7	Intel	69,32
8	Volkswagen	69,29
9	Apple	69,21
10	Nestlé	69,00

Figure 2 – Top Companies by CSR

Rank	Company	RepTrak™ Pulse Score
1	BMW	78.39
2	The Walt Disney Company	77.76
3	Rolex	77.23
4	Google	77.15
5	Daimler (Mercedes-Benz)	76.58
6	Sony	76.30
7	Microsoft	76.23
8	Canon	76.02
9	Nestlé	75.21
10	LEGO Group	75.02

Figure 3 – Top Companies by Overall Reputation

Walt Disney garnered 49.6 percent of the vote as a good citizen that champions the environment through programs like its carbon offsetting goals. BMW’s focus on transparency and its public commitment to uphold the rights and protection of whistleblowers no doubt reflected its high marks (48.8 percent) in good governance. The company with the best perception for ‘workplace’: Google. Fifty-one percent of consumers across the 15 markets agree that Google is an appealing place to work, and that it treats its employees well. Microsoft was first by CSR in three out of the four regions where the study was conducted (North America, Latin America, and Asia/Pacific, all except Europe). Microsoft marked the first year of Microsoft YouthSpark in 2013. It’s a global, company-wide initiative launched in September 2012. To-date, through partnerships with hundreds of youth-serving nonprofits, the initiative has created new opportunities for education, entrepreneurship and employment for more than 103 million young people around the world. In addition, October marks Microsoft’s annual Employee Giving Campaign, now in its thirty-first year. “It’s a tradition that our employees drive each year with more than 300 fundraising events and activities on campus for their favorite nonprofit organizations and causes,” Harnick says. In 2012, employees raised \$105 million (inclusive of company match) for more than 18,000 community organizations—and they also announced the milestone achievement of \$1 billion in employee contributions (inclusive of company match) to more than 31,000 nonprofits since 1983 (Lee, 2014).

There are examples of good CPR beyond this list. Clothing company Patagonia, already known by its usage of organic and recycled materials, launched an innovative new program named Common Threads Partnership, which allows customers to trade in their used clothes for a 50 percent discount. This supports not only the customer, but also those in need throughout the world. It also ensures that our favorite clothing won’t just go into a landfill. Finally, the hat tip should probable go to Lenovo’s CEO, Yang Yuanqing for his decision to donate \$3 million of his bonus to Lenovo’s hourly employees. In 2012, he donated \$3 million to his hourly employees. In 2013, his gift was at about \$3.25 million. News of Yuanqing’s decision hit the airwaves immediately. Within hours, it was major news in the United States. One supporter tweeted: “Our CEO leads by example – really proud to work for him.” Kobe Bryant, who has partnered with Lenovo, seconded the sentiment. “This is why I partner with Lenovo #lead #inspire #standingO...” While it wasn’t revealed just how much Yuanqing received in total as a bonus, the \$3.25 million will reportedly equal about one full month’s pay per employee in China – far better than what many employees in North America receive as Christmas bonuses. But there were also some key benefits to be gained with this gesture. Lenovo’s name was rebroadcast by hundreds of times within hours the decision was announced, overshadowing even its own promotion event held that day. Also, Lenovo’s stocks were up by 1.7 percent a day after the announcement. None of this takes away from Yuanqing’s

generosity, though. It simply reinforces why Lenovo is at the top of the market right now (Lee, (2013).

CSR IN SERBIA – Ten years ago, a concept of socially responsible management in Serbia was in its very infancy, whereas today almost every company has a CSR section on its website that exhibits their contributions to society. There are a growing number of activities dedicated to social goals, and some of the companies that are more advanced in CSR department are even issuing annual reports about their activities. And since the very beginning, the progress was fast. Experts from Europe who were visiting in order to help promoting humanitarian and charitable contributions were astonished by speed in which Serbian companies adopted and in variety of ways implemented the concept of corporate philanthropy. Unfortunately, in Serbia and the region it still isn't possible to accurately and systematically follow CSR accomplishments. In western countries this data is available through tax agencies because there are benefits for social engagement of companies and individuals (Vesić Antić & Koeshall, 2013). However, a few recent independent research studies conducted in Serbia and the region are giving us some insight about socially responsible management trends in south-eastern Europe. A research by Catalyst Balkans Foundation that collected data from daily media reports through 2013 has shown that there were at least 115 philanthropic actions monthly on average in Serbia – that's 4 a day, and the number is certainly higher, knowing that media hadn't covered all of them. In 2011, the average number of philanthropic actions per month was around 85, meaning that companies and individuals give more despite the financial crisis. The impact of the crisis, however, shows itself through the form of giving. While back in 2011 75% of contributions were financial, in 2013 that number dropped to 68%, and instead companies and individuals are giving goods, services, or help by volunteering. When it comes to what area are benefactors aiming their assets to, analysis show that giving to economically and socially underprivileged and vulnerable groups is in slight decline (from 43% to 41%), while the number of actions directed towards healthcare is rising (from 30% to 45%). There were much fewer donations for education and even less in culture (only 1.9%). By comparison, in Montenegro, most charity goes to social issues, and much less to medical and health care. Organizations "Smart Kolektiv" and "Ipsos Strategic Marketing" have together conducted an extensive public opinion poll in Serbia that showed some interesting results. 81% of citizens believe that the quality of their lives would drastically improve if companies would operate in socially responsible manner. If, when buying a product they had to choose between two companies, 73% of citizens would choose socially responsible company over one with questionable reputation, even if the latter has better prices. Also, 87% of Serbian citizens would rather work for socially responsible company for a lesser wage than for a company that has bad work ethics but better salaries. As for the companies that showed the best CSR practices in 2013, we won't be mistaken if we mention Bambi-Banat for their projects "Bambi Nurtures Future Champions", that provides a number of elementary schools with everyday meals, regular physical trainings and preventive health examinations, "Juhu! Playgrounds" in which they built 6 children playgrounds in Leskovac, Smederevo, Bukulja, Vršac, Goč and a special one at the children holiday resort Mitrovac-Tara. Then there's Carlsberg Serbia with their various scholarship programs and investments in education, B92 with initiatives "Battle for Babies", "Battle for Maternity Wards" and "Movement 65+" for fighting population decline and promoting the position of elderly as a social group, Telenor that donated hundreds of new computers to schools across Serbia, built 33 public internet parks in 19 cities, Tarkett for promoting sport and supporting local communities, Societe Generale for helping developmentally challenged children, Vip, Wiener Stadtische and many other companies that made 2013 a good year for CSR in Serbia (Smart Kolektiv & Strategic Marketing, 2013).

CONCLUSION

Being socially responsible is in the big picture the most noble and high-minded purpose for a business enterprise. Giving to community gives higher meaning for company's existence. We can argue the meaning of existence of, say, tobacco companies. But if a tobacco company inject

millions for building schools, hospitals and organizes planting of thousands of trees yearly, then they really have a good argument for themselves. But a company must first survive and be profitable to be able to contribute to society. A problem many companies face: They spend millions of dollars every year on corporate CSR—investing in programs to support local communities, give away products to support people in need, invest in clean technology to lower their environmental footprint, donate money from sales, and engage their employees in nonprofit work—and they never see a return on their investment. For many companies it's missing. They don't have a solid business case for why it's a good investment for the company. And they don't have a solid framework to tie their CSR action to the strategy of the company. And without this, it becomes more and more difficult to defend the investments and almost impossible to be taken seriously by senior board. All the surveys show that consumers are willing to recommend companies that are delivering in CSR. But even the biggest companies struggle to get their message across to consumers despite spending upwards of \$100 million a year on their CSR programs. And there are companies that give much less money, but know how to promote and advertise their CSR activity, and they get more attention and arguably achieve better reputation. It is the role of global society, media and political authorities to track and publicly reward all contributors as well as to criticize and sanction bad behavior. After all, business organizations are the ones that have the most money, so it is in the best interest of the global community to make CSR their vital interest as much as possible. It doesn't matter what are the motives of the companies for being socially responsible if society benefits.

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PRIORITIZING COMPETITIVE STRATEGIES IN BEHRAN OIL COMPANY BASED ON AHP APPROACH

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ABSTRACT

Hard and compressed competition, constant change and instable and environmental uncertainty, and creating new needs and in consequence of creation of new markets, rapid change in technology and need for constant learning in organizations and clerks and... are of characteristics of today's market. Besides changing the strategic management of e-commerce is changing many other industries. The topic of this research is "review and prioritizing of competitive strategies in Behran Oil Company in AHP method". The main question to the presence research, is that according to the source and budget limitations that no organization can deploy those competitive strategies, so how best Behran Oil company, can use competitive strategy according to the present time that would fit best in the hard conditions of the market? The method which is used in this paper, is the Michael Porter's Competitive Strategy which includes Cost Leadership Strategy and concentration and differentiation. Statistic research, employers of Behran Oil Company and survey-applied research method were used in this research. After performing the research it was clear that the best strategy through competitive strategies for Behran Oil Company, was the Cost Leadership Strategy.

Keywords: Competitive Strategies, Prioritizing, Analytic Hierarchy Process (AHP), Behran Oil Company

INTRODUCTION

Rapid and major changes in the current market environment emphasize on the necessity and importance of identifying, survey and prioritizing competitive strategies, and any organization which would go to a higher level than its clients' expectations and succeed in the business world has no other way except following such strategy. (Hosseinzadeh, 2012) in manufacturing organizations which generally need huge investigation and profitability and return on investment was the major problem and organization had to go to a higher level of survival and effort durability and focus on Profit Orientation and Survival Orientation. (Ramezani Tehrani, 2009)

Strategy is the way to achieve long-term goals. Business strategy might include geographic expansion, diversification, acquisition, product development, market penetration, staff rationalization, divestment, liquidation and joint ventures. (Suliyanto, et al., 2010) Globalization and technological innovations have changed the way that manufacturing SMEs operate. These changes, despite the enormous benefits they brought, have also made the environment more competitive, therefore increasing the manufacturing SMEs' exposure to various risks of losing competitiveness and profitability. The need arose to manage these new types of risks so that manufacturing SMEs could continue to effectively and efficiently operate in a competitive environment, at the same time gaining the competitive advantage and ensure their profitability. (Turgay & Karibov, 2008)

Organizations, including Behran Oil company, to save and survive in such uncertain market refer to survey, identify and prioritize the goals and competitive strategies so that achieve more competitive advantages and useful among the contenders. Porter's competitive strategy is the most well known

strategy among the models which contains three strategies of cost leadership, concentration and differentiation.

COMPETITIVE STRATEGIES

Porter (1980) competitive strategy divides into three general strategies: 1) Differentiation, is offering a different than the bid offered by competitors. Differentiation strategy implies that the company has a service or product that has the qualities or functions that could distinguish from the competitors. 2) Cost advantages (low cost), is a strategy to streamline the entire production cost of products or services that can be sold cheaper than competitors price. 3) Focus, is the strategy working on one specific target market. The strategy focus is usually done for product or service that does have special characteristics. Some products such as only focus is targeted to a particular segment so that all its products to provide benefits and functions that are tailored to that segment. (Suliyanto, et al., 2010) Generic strategy is among the most popular business strategies that have been based on assessing competitive environment and the business's capabilities relative to other competitors. Researches show that the link between organizational characteristics and the generic business strategies of cost and differentiation is a recent development. (Turgay & Karibov, 2008) Main formulating competitive strategy is to connect companies with their environment. Although the relevant environment is very broad covering, social forces as well as economic forces, the main aspects of the corporate environment is the industry or industries in which companies compete. Industrial structure has a strong influence in determining the rules of the game competition as well as the strategies potentially available to companies. (Suliyanto, et al., 2010)

METHODOLOGY

The Analytic Hierarchy Process (AHP) was introduced by (Saaty, 1980). Since then it has been used in many applications and in different variants. Multi-criterial AHP method belongs to Multiple Criteria Decision Making tools (MCDM). (Hudymáčová, et al., 2010) The AHP is one of the most well-known decision-making methods to assist in the complex task of reaching the best decision from a set of possible criteria. The AHP provides a mathematically based application and proven process for prioritization of alternatives. (Chien-Wen Chen, et al., 2011) The AHP uses a principle of hierarchic composition to derive composite priorities of alternatives with respect to multiple criteria from their priorities with respect to each criterion. It consists of multiplying each priority of an alternative by the priority of its corresponding criterion and adding over all the criteria to obtain the overall priority of that alternative. This is perhaps the simplest way for composing priorities. (Saaty, 2003) The AHP is a well-known multi-criteria aggregation model based on pairwise comparison matrices at two fundamental levels: the lower level encodes pairwise comparison matrices between alternatives (one such matrix for each criterion) and the higher level encodes a single pairwise comparison matrix between criteria. (Bortot & Pereira, 2011) The AHP approach was designed to help decision makers incorporate qualitative (intangible) and quantitative (tangible) aspects of a complex problem. It systematically solves complex problems by decomposing the structure of a problem into hierarchies and the users then make pair-wise comparison judgments as to importance or preference to develop priorities in each hierarchy. (Gerdri & Kocaoglu, 2007) These judgments are expressed in terms of pair-wise comparisons of items on a given level of the hierarchy with respect to their impact on the next higher level. Pair-wise comparisons express the relative importance of one item versus another in meeting a goal or a criterion. Each of the pair-wise comparisons represents an estimate of the ratio of the weights of the two criteria being compared. (Tahriri, et al., 2008)

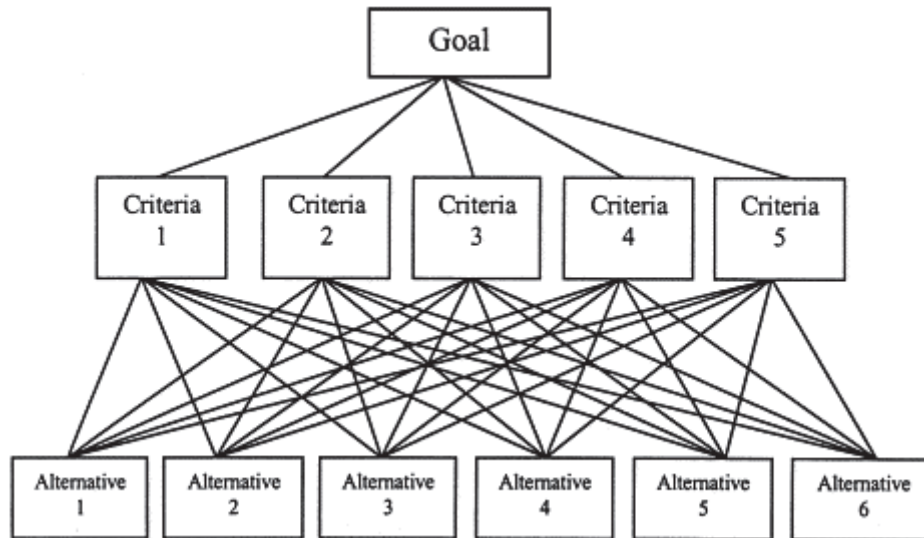


Figure 1: Analytical Hierarchy Process (AHP) model

AHP is based on comparing n objects in pairs according to their relative weights. In AHP, the ratio scales for pairwise comparison range from 1 to 9 representing judgment entries where 1 is equally important and 9 is absolutely more important. (Alam & Shrabonti, 2002)

As usual comparisons were done by standard APH questionnaires and the result converts to paired comparison matrices. In order to combine different people's ideas geometric mean approach were used. The stability of this questionnaires was based on inconsistency rate which had to be less than 0.1. (Moosa khahi et al. 2009 – Asgharpour, 2009; Ghodsipour, 2004)

Table 1: Pair-wise comparison scale for AHP preferences (Saaty, 1980, 1990, 1991)

Numerical rating	Verbal judgments of preferences
9	Extremely preferred
8	Very strongly to extremely
7	Very strongly preferred
6	Strongly to very strongly
5	Strongly preferred
4	Moderately to strongly
3	Moderately to preferred
2	Equally to Moderately
1	Equally preferred

In the hierarchy structure, factors of each level are marked as: A_1, A_2, \dots, A_n . Based on the index of the upper level, weights of factors, w_1, w_2, \dots, w_n are to be determined. The relative importance of a_i and a_j is shown as a_{ij} , the pair-wise comparison matrix of factors A_1, A_2, \dots, A_n as $A = [a_{ij}]$. In this matrix, the element $a_{ij} = 1/a_{ji}$ and thus, when $i = j$, $a_{ij} = 1$. The value of w_i may vary from 1 to 9, and 1/1 indicates equal importance while 9/1 indicates extreme or absolute importance.

The consistency index of a matrix of comparisons is given by the formulas (1) and (2). The consistency ratio (C.R.) is obtained by comparing the C.I. with the appropriate one of the following set of numbers (see Table 1) each of which is an average random consistency index (R.I.) derived from a sample of randomly generated reciprocal matrices using the scale 1/9, 1/8, . . . , 8, 9. If it is not less than 0.10, study the problem and revise the judgments. (Saaty & Vargas, 1990; Chang & Huang, 2006; Lee et al. 2009)

$$CR = \frac{CI}{RI} \quad (1)$$

$$CI = \frac{(\lambda_{max} - n)}{(n - 1)} \quad (2)$$

DATA ANALYSIS

Prioritizing was done upon AHP method based on Expert Choice software, in which the analysis results are as follows: (inconsistency rate is 0.05. Since the inconsistency rate calculated in this research is less than 0.1. Therefore the questionnaire is valid.)

1. Cost leadership with importance: 0.652
2. Concentration with importance: 0.242
3. Differentiation with importance: 0.106



Figure 2: the software output (Rating Scale)

The results are as following items which is based on the Behran Oil Company's competitive strategy prioritizing method:

1. Cost leadership
2. Concentration
3. Differentiation

In this research, the questionnaires were analyzed using Expert Choice 11.

CONCLUSION

With respect to the uncertain and agitated environment of nowadays, companies, specially the manufacturing companies inevitably formulate a coherent plan for dealing with various problems which itself does require identifying and prioritizing competitive strategies, that Behran Oil company has already been on it. In this article we are prioritizing the AHP method of competitive strategy which the software analysis output is as follows:

1. Cost leadership
2. Concentration
3. Differentiation

So the best competitive strategy in the current situation for Behran Oil Company is the cost leadership strategy.

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DIRECT MARKETING AS A FACTOR OF CONTEMPORARY ORGANIZATIONS

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ABSTRACT

The aim of this study is that based on the analysis and descriptions of the most important activities of direct marketing, point out the importance that it has for the modern business and the success of the organization. The scientific goal of the work is scientific, theoretical and practical description and analysis of direct marketing. In operational terms, direct marketing consists of organization, planning, pricing, comparing strategies; determine the range, creating promotions and other details. Thought assumption underlying this work is: Modern theory suggests that consumers are the most important resource and, consequently, marketing is the most important area of the organization, which indicates the importance of effective management in order to achieve both organizational and individual goals and interests. Special studies have the following hypotheses: 1. The quality of the process of direct marketing depends on organizational success, 2. Direct marketing activities are extremely important, but the most important is the process of identifying potential customers and how to contact them through a personalized message. In proving the hypotheses, the paper met the methodological requirements - objectivity, reliability, generality and systematic. We investigated the theoretical scientific knowledge, relevant literature and contemporary business practices.

Key words: marketing, direct marketing, market, customers, business excellence

INTRODUCTION

Direct marketing is a marketing that requires an immediate response or the response of consumers. This reaction can be orders, requests, request for additional information, registration, send e - mail addresses, phone call or visit. "Direct marketing includes all those elements to be without intermediaries direct sales" (Stosic Mihajlovic, 2013).

Although direct marketing first appeared in the form of direct shipment of mail and catalogs that are mailed in recent years has taken on many forms, including telemarketing, electronic way of shopping and the like.

Media direct marketing telephone, electronic media, print media and new media. Special print media brochures, posters, flyers, packages and the like. New media fax on demand, electronic kiosk, online services and Internet.

RESEARCH METHODOLOGY

Any scientific explanation is a complex process that comprises a plurality of logical thought and action, which define the relations between the phenomena being investigated. In proving the hypotheses used in the work of the different methods in order to meet the methodological requirements - objectivity, reliability, generality and systematic. We investigated the theoretical

scientific knowledge, relevant literature and contemporary business practice using basic analytical and synthetic methods, especially analysis, synthesis, induction and deduction.

From scientific method used is a hypothetical - deductive and statistical methods. In collecting data, the following methods and techniques: content analysis of documents, and to both primary and secondary materials - already completed research, case studies (case study), followed by observation and descriptive methods. Approach to research is integrative, synthetic, in the sense that none of the methodological procedure does not give exclusive priority, but all are equally represented.

BASIS OF DIRECT MARKETING

Benefits of direct marketing can be best notice if implemented comparison with the so-called. General marketing. The following table is given the comparison between general and direct marketing.

Table 1: Comparison between direct and general marketing

GENERAL MARKETING	DIRECT MARKETING
Reaches a mass audience through mass media	Communicate directly with consumers
Communicating is not personal	Communication is personalized by the name , title and with different messages to anyone
Promotional programs are very noticeable	Promotional programs are relatively unnoticed
The amount of promotion is controlled budget	Volume budget determines the success of the promotion
The effects of actions are either unclear or delayed	Actions are always specific in terms of effects or the request for a response or for purchase
There are no data for decision making, because it is undertaken research or are looking for sales reports	Comprehensive database driven marketing program
The analysis is performed at the level of market segments	Analysis is performed at the level of the individual or company
Used surrogate variables to measure the awareness of the product or the intention to buy	Measurable absolute and controlled

An essential element of direct marketing is database marketing, or marketing databases. Database marketing means the marketing actions based on databases. A database is a collection of information about consumers or potential consumers, the name, address, title, company, buying records, and other facts. Databases are usually segmented by income, lifestyle and shopping habits of consumers.

CHARACTERISTICS OF THE DIRECT MARKETING

Direct marketing has a number of specific characteristics that make it different from other elements of the promotional mix. These characteristics are:

- The initiator of direct marketing has control of media and messages. Up loader is fully in control of the size of the consignment, content, colours, shapes, feedback details. Sender controls who receives messages when you receive them as they are received, and the like. This level of control makes it very flexible direct marketing activity.
- There is usually no direct competition with other bidders, or in the mailbox or on the phone or on the computer screen. Even if there are more items, they are read and treated separately. It gives a special comparative advantage of direct marketing.
Precise targeting individual consumers allow specific offer. While elements of mass communication, such as advertising, go to mass audiences and sent mainly general messages for direct marketing recipient 's individual consumer. In this sense, there is no wastage of resources and direct marketing is a very efficient distribution.

- Direct marketing is very affordable for small businesses, which often cannot afford the use of the mass media. At this point you may need to send a warning to entrepreneurs do not begin direct marketing only to probe. If you do not clearly define the objectives and study the techniques and methods, it is difficult to expect success.
- Direct marketing shows immediate effect.
- In terms of the objectives to be achieved, direct marketing provides an opportunity for achieving the objectives for at least the same rank as the other elements of the promotional mix, with the advantage of direct and immediate effects. In addition, direct marketing to simultaneously combine a number of objectives, such as , for example, creating the image of the product for sale at the same time.
- Effects of direct marketing are easily measurable.
- Actions, measures and methods can be easily adapted to the specific conditions and position. Due to the specifics of proportion to simply reposition and adapt the message and put emphasis on certain elements of the offers that are of interest to consumers.
- Direct marketing allows simultaneously building a database with the exercise of the basic functions of sales. Every time a customer order or responding to the incentives of direct marketing, it is possible to add information about it in the database. Through constantly upgrading the database, you can create all the quality and updated database. What is the basis of a better organized and what is more appropriate uses, the better the results of direct marketing.
- Direct marketing allows multiple sales to the same buyer. In other words, by building long-term relationships with customers direct marketing achieves its ultimate goal.

CUSTOMERS DIRECT MARKETING AND ADVANTAGES OF DIRECT MARKETING

Direct marketing can serve all types of organizations, that "all participants in the supply chain: manufacturers, retailers, service companies, trade through catalos, non profit organizations, and the like. Their growth in the market of consumer goods is largely a response to the decrease in the market which is increasingly multiplies the number of mini - markets with strong individual needs and requirements. Customers in these markets have a credit card, known mailing address, and phone numbers making it easy to make new contacts and transactions" (Kotler, 1999).

Households do not have much time to shop for a substantial number of women employed. Higher costs of driving a car, traffic load, s problems with parking, reduced the number of retail locations, lines at the box office, all to encourage the purchase of your own home.

In addition, many chain stores left special items which are rarely sold and opened up the possibility of direct marketers to promote these products. Conducting free call phone numbers and willingness direct marketer to receive phone orders at night or on Sundays, have resulted in the spread of this form of selling. Also, the direct marketer is increasing use of computers enabled the expansion customer database from which to choose the best potential customers for any product who want to advertise.

Direct marketing offers a number of benefits and advantages over traditional marketing approach. To facilitate the understanding of these competitive they can be divided into customer benefits and advantages for sellers.

Advantages of direct marketing customer. Customers who buy through the channel of postal orders stating that such purchases comfortable and practical, and that it has no wits. It saves them time. Scrolling catalogue of comparable purchases from their armchairs. This purchase them met with a number of goods and introduces a new way of life. And industrial customers confirmed a number of benefits, particularly knowledge about new products and services, and without wasting time on meetings with vendors.

Advantages of direct marketing seller. The important advantages of direct marketing for sellers are:

- Direct marketing allows greater selectivity of potential customers.
- Direct marketer can buy a directory that contains the names of almost every kind of potential buyers.
- Some messages may personify and adapt.
- Direct marketer can establish a continuous relationship with each customer.
- Direct marketing can be terminated by exactly the right time to reach the right buyer.
- Materials direct marketing gets selected audience, as those sent to potential customers where there is already interest in purchasing the product.
- Direct marketing allows testing of alternative media and messages to find cost-optimal approach.
- Direct marketing allows secrecy because competitors do not see the offer and the strategy of the direct marketer.

THE MAIN INSTRUMENT OF DIRECT MARKETING

Catalogue marketing

Catalogue marketers annually mailed more than 8,500 different catalogues of more than 12.4 million copies. The average household receives the tiniest 50 catalogues a year. Catalogues sent to retailers of consumer goods dealing with unlimited lines of goods. Specialized department stores sent catalogues to process the market more expensive for the middle class, often foreign goods. Several major corporations have been trained and developed sectors for action by mail. Moreover, in dealing with catalogues sale via mail have thousands of small companies that usually publish a catalogues for the area of specialized goods such as consumer electronics, women's clothing, home productions and the like. Catalogue houses that sell specialty goods offered with a purchase order and a toll free phone number for twenty-four hours, payment by credit card and fast delivery of goods.

The success of a work which is done by mail largely "depends on the ability of a company to use the directories and lists of customers to carefully control their inventory, offering quality goods and to carry the show on special benefits for the customer. Some catalogues companies differ in that in their catalogues classified educational or informational articles, sent samples of products it introduced a special line for answers to customer questions, send gifts to your best customers or offer a certain percentage of the profits as a donation for a noble purpose" (Kotler, 1999). Many successful catalogue houses have opened retail stores in the hope that it will attract their existing customers and newcomers to another channel to make them establish a business relationship. Some catalogue houses are experimenting with catalogues and DVD presentations.

Marketing through direct mail shopping

Marketing via direct shipment by mail is a huge deal in which reverse the tens of billions of dollars. Direct marketers send individual postal item - letters, flyers, brochures and other "dealers in motion. "So recently some direct marketers mailed computer discs. For example, Ford sent a CD called "Disk Drive Test Drive" for those consumers who respond to ads on their cars published in computer publications. Contents of the CD to the consumer to read persuasive text, find out the technical details, see attractive graphic drawings of certain cars and get answers to frequently asked questions. There are marketers hoping to sell a product or service, or to assess more closely the priorities for the sales force, disclosed some interesting news or get the chance to come up with something tangible reward loyal customers. Customer names could be chosen from a list that is compiled within the company or from a list supplied by brokers who trade directories. These

brokers are able to get a list of potential customers "any kind" of those extremely wealthy, or lover of classical music and so on. Direct marketers usually buy some sample names from a list provided, and then sending mail inquiries to see if the response rate is high.

Shipping direct mail are increasingly applied as it allows great selectivity of the target market, we can personalize, flexible and allows individual testing and measuring results. While in this case the cost per thousand respondents included higher than in the case of using mass media, included subjects were significantly more likely to be potential customers. For example, even twenty years ago, more than 30 % of Americans bought something directly via email. This method is used by charities, which are collected in the same period of \$ 42 billion, which is the amount that represents almost 25 % of all proceeds are sent directly to the post.

In direct response marketing through television

Television is a medium of direct marketing that develops through TV networks and channels through cable television. To sell products directly to consumers, television is used in two ways. The first is through direct response advertising. Here marketers broadcast TV commercials, usually for 60 or 120 seconds, which is reality describes a product and says the toll free number to order.

Some companies are preparing 30- minute infomercials that are like documentaries and they cite evidence of satisfied users of the product or service, and its toll-free number for orders or to obtain more detailed information. The second method of marketing through television shopping channels are in households in which the entire TV program, or the entire channel dedicated to selling products and services. The largest network of such channels is the company Home Shopping Network (HSN) which is broadcast 24 hours a day. Leaders programs offer appropriate price, as it normally gets HSN, for a wide range of products. Viewers for product orders call certain phone numbers via free phone 800 A at the other end of the line telephone operators serving more than 1,200 incoming lines, inserting orders into computer terminals. The ordered goods are shipped within 48 hours. That is selling through retail channels household have grown exponentially in recent years.

Magazines, newspapers and radio are also used to provide customers with a possibility of direct response. Certain people hear or read of an offer, and that handed the order call the toll free number.

RESULTS

The aim of this study was to explain in detail the basic elements of direct marketing and its implementation, as well as identifying offered by direct marketing.

The concept of direct marketing consists in the identification of potential customers and how to contact them through a personalized message. This message should show the advantages of doing business with a company that initiates the action and the way in which consumers need to respond. Direct marketing is a very important activity because the effects can be measured with great precision. Direct marketing can be adjusted according to the budget and business goals.

Four important characteristics of direct marketing are that it:

1. an interactive system, i.e. there is a two-sided communication,
2. there is a possibility of measurable effects of actions,
3. there is a direct response to the actions of the respondents,
4. independence in relation to a particular location.

The objectives of direct marketing may be selling, giving ideas and instructions to consumers on spending, maintaining and nurturing relationships with customers, and the final goal is to build long-term customer relationships.

The impact of direct marketing in the modern business enterprise is enormous. Due to a number of benefits that has compared to traditional marketing approach to direct marketing from a seller direct relationship with the consumer. Thus establishing a direct contact between the production, sale and consumption. Performs the estimate of the market based on various studies related to the demand that the company sees based on the results of surveys or on data stored in the database. Consequently, the company directed its production and sales to customers which will in most cases purchase date Products.

The use of specific instruments of direct marketing at first it may seem economically profitable, but at the end of the sale leads to the conclusion that it is focused and direct deals based on demand seemed the advantage of direct marketing, in front of all other marketing strategies.

CONCLUSION

Direct marketing is an interactive marketing system that uses one or more forms of communication to influence measurably transaction at any location. Four key elements in the definition are: it is an interactive system communications potential between the company and the customer; target customer is always a chance that reacts; communications can happen anywhere; all dimensions of marketing activities can be measured. Direct marketing includes features and strategies mentioned issues with carefully chosen target consumers, in order to come to an immediate response, it is an important difference from mass marketing that seeks to contact millions of customers with a product and standard advertising message sent via the mass media. Here is marketing offer aligns with narrowly defined segments or even individual customers. Using 's direct marketing greatly depends on four factors: the degree orientation marketing company; degree of information orientation, including technology and Others need expertise; attitude oversight and the organizational structure that supports the financing of direct marketing; interrelationships seller.

Direct marketing is an aspect of the overall marketing, it requires research marketing market segmentation. These methods are the means by which marketing director lets you communicate with customers. Direct marketing has some weaknesses that should, if possible, in the initial stage of implementation to solve. For example, expressed doubt about its efficiency compared to conventional methods of marketing, puts the objection to the method 's direct marketing jeopardize consumer privacy; Products may not be introduced directly through the purchase, because there has to be a very liberal return policy products if consumers are dissatisfied.

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ETHICS AND PROFESSIONALISM IN MARKETING

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ABSTRACT

The imperative of modern business is that organizations are socially responsible. As the modern world in the field of engineering and technology is looking for a new cleaner, renewable energy sources, also from the sphere of economy requires a new, "clean" operation. The aim of the study was to confirm the hypothesis according to which better in competition only companies that emphasis on social responsibility and ethics. Corporate social responsibility of organizations to create image of "good member of society, "and consumers prefer to purchase products that promote a social action and moral principles and values are key to the behaviour and activities of individuals and groups. In addition , the paper proves the notion that its implementation of corporate social responsibility for the company are not only cost but to corporate social responsibility and ethics in business, adequately integrated into the operations of the company, brings many benefits, including superior financial position. Relevant data were collected and analyzed by the following methods: historical, descriptive, statistical and causal. During his business career, each individual has to make many decisions. However, there is one thing that no one else can be taken away, unless it's not allowed - and that's integrity. In business, when people talk about ethics, they are actually talking about behaviour, because every day are in business situations when you need to decide which of two or more options good and proper. Business ethics can be studied from different aspects including the aspect of an employee, enterprises and society as a whole. Very often occur in situations where there is conflict between several entities - to meet the interests of one person causes harm to another entity. In this sense, socially responsible means not only fulfilling legal obligations, but also to invest in human capital, with the environment.

Keywords: ethics, marketing, professionalism, business excellence

INTRODUCTION

Ethics and Corporate Social Responsibility (CSR) implies the acceptance of responsibility by the organization to its customers and to encourage the positive impact of its activities on the environment, customers, employees, communities, stakeholders and other actors in society. Thus, the concept of CSR organizations proactively promote the public interest by encouraging community growth and development, and voluntarily eliminating activities that harm the environment in which they operate. Organizations are taking the social responsibility that extends across all business activities so that activities of the organization are not only not harmful, but contributes to the progress of society and the overall environment. CSR enhances the reputation of the organization in the region, promotes the growth and development of the organization and is the foundation of modern business. Content CSR consists of the following main elements: 1) Ethics in Marketing; 2) The profitability of the business; 3) Compliance with legal norms; 4) Voluntary activity in the community.

Ethics in marketing is usually identified with the CSR, but it is a concept that is narrower in its nature and meaning. Because organizations can comply with ethical standards, but when it does not directly contribute to their community. Ethics in marketing encompasses all the principles, values, standards of behaviour that marketers must respect. Organizations generally operate according to

their own interests, but there must be standards of acceptable behaviour according to which direct all marketing decisions and actions. For any organization is especially important to establish a strong ethical culture in the organization. Therefore, it is important that ethical behaviour is included in the list of priorities of the organization, and there definition policies that encourage ethical behaviour. For this purpose, often to pass and adopt a code of ethics as a formal statement of organizational values on certain ethical and social issues.

As some of the important principles of socially responsible marketing, there may be mentioned: ethical business, respect for human and labour rights of individuals and groups in the market, compliance with environmental principles in new product development, the fight against corruption in the market economy and respect for ethical principles in the design of communication with the market groups. The practice of social responsibility began in the context of risk management in large multinational companies and has developed significantly in the last decade of the twentieth century and reached its climax right, even in times of economic crisis, the beginning of the XXI century.

Some of the key benefits of adopting the concept of socially responsible marketing are as follows:

- Building a successful brand - connecting brands with socially responsible behaviour, positive impact on sales and commitment to our customers;
- Increasing the level of employee satisfaction in service marketing - engaging employees in community service projects, in accordance with the ethical rules, is one way to attract and retain quality staff;
- Increase incentives and innovation - developing new ideas, perspectives and experiences, pointing to the need for new products, the ability to adapt to technological and social change;
- Due to the great importance of environmental components in the management of marketing, there is the concept of environmental marketing, and eco - marketing;
- Customization of the product environmental standards;
- Changes in process production, delivery and consumption;
- Changes in the package;
- Modify the strategy of promotion and communication.

One of the new concepts of marketing within the social responsibility of business is called causal marketing (Cause related marketing), is referred to as "marketing to the occasion." Causal marketing is a marketing concept that connects the company's contribution to a particular view to the common good, with customers who are directly or indirectly involved in the transactions of the company to generate income. Causal marketing is defined as a commercial activity in which companies and charities enter into partnership with one another, to certain markets the image of the product or service, for the sake of the common good.

METHODOLOGY

The modern business world increasingly recognizes the importance of corporate social responsibility in achieving sustainable development organization. Business success is measured not only generated more profit, but effective management of operational parameters relevant for a company, society and the environment in dialogue with all interests - influential groups or responsible business organization of modern industry, primarily in the field of marketing as a part of business activities, as well as commitment to assist in the overall sustainable development in order to improve the quality of life of the local community.

Relevant data were collected and analyzed by the following methods: historical, descriptive, statistical and causal. The analysis of written sources investigated "history" of the investigated problem. Comparative methods were planned data collection, which set forth the identity, similarities and differences between phenomena, such as corporate social responsibility and ethics

in business, especially in marketing as a business function. Descriptive testing has allowed us to learn about the characteristics of socially responsible business. Statistical method made it possible to by recorded occurrence in practice confirm the hypothesis and achieve the objectives of the research. Causal method has steepened connection researched phenomenon.

FINDINGS

Corporate social responsibility is a modern concept of corporate governance, which "maintains the balance between economic and social goals", in order to establish higher standards of living, while maintaining the company's profitability. This concept helps organizations to be accountable to the community in which they make profits and to treat the community as a socially responsible and ethical manner, which includes the responsibility to protect the environment and the sustainable development of local communities. There are many potential benefits to the company associated with the marketing goals and objectives as well as support brand positioning, encouraging commitment to the brand and increase traffic and sales.

Social responsibility in marketing refers to the attitude of companies that accept an obligation to increase its positive impact and minimize the negative effects on the environment. Organizations within the social marketing take care of the environment, have a positive attitude towards employees, providing financial and other support, employing people with special needs or socially vulnerable, caring for the community in which it operates its business. Although the concepts of ethics in marketing communications and social responsibility, often used as equal, it is important to emphasize that ethics refers to the moral assessment of an individual - judgments about what is right and what is wrong - in some cases making. Social responsibility is the obligation of the organization to increase its positive and minimize its negative impact on society. Thus, social responsibility refers to the overall impact of marketing decisions on society. If an employee of the company approved the procedure, if it is lawful and in accordance with good business practices prevailing within the industry, it is very likely that the procedure adopted from the standpoint of ethics and social responsibility.

ETHICS AND PROFESSIONALISM IN MARKETING

Modern business ethics can initiate two issues in future discussions. Issues associated with the ultimate responsibility of business decision-making. The famous Nobel Prize laureate, Milton Friedman, raised this issue when he stated that the social responsibility of business is one subversive doctrine. Who authorized executives and managers in the business to determine what the common good of the entire nation? The second question is similar and refers to the stakeholders and ethics values: When the decision is the ultimate decisions in a complex business situation, which of the stakeholders and the proponent of ethical values will be responsible for that decision? Ethics is not subject to impermanence syndrome, it is eternal, in fact, a tendency to higher ethical standards encourage the creation and development of creative programs. The system of business ethics should be the foundation of any organization - business morality in every process and respect the organization. This is because the ethical system is essential for: build trust and cooperation among individuals in the organization; to serve as a moral guardian to indicate the organization of society and the relative importance of certain moral values; be a moral arbiter in resolving competing claims based on individual self-interest; clarify the organization of conflicting values and principles derived in new moral dilemma.

PROFESSIONALISM AND ETHICAL STANDARDS IN BUSINESS

Most of the basic ethical principles governed by the laws and rules of conduct. The least that is expected of employees of individuals and organizations to comply with laws and regulations and accepted

standards of behaviour. Ethical standards differ among nations and societies. The essence of public relations makes understanding between an organization and its target audience, which is based on trust and respect of the adopted values. One of the basic principles of public relations is responsible for providing factual information. The essential difference between the concepts of advertising and public relations - the purpose of advertising is to make the right choice details that will ensure demand for certain products, and the purpose of public relations is to establish communication with the target public, no pre- made selection of information. Relations are closely related to business ethics: Ethics as a component of corporate identity (moral rules and norms within the organization), Ethics as a component of corporate culture (moral rules are part of the corporate culture), Ethics as a component of an organization's operations (operations are in compliance with the ethical norms of the society). Employees correlation with the public, the activity must be carried out respecting the adopted Code of Professional Conduct (must be professional, uncorrupted, etc.). Some of the basic principles that employees must conduct their activities: Honesty, Display all sides of one problem Respect the integrity and opponents carried the essence of business ethics based on their own standards and the standards of society, Developing a trust point of the question, do not sacrifice long-term goals for short-term.

In the organization of the world of work is constantly, consciously or unconsciously, we do various forms of ethical assessment and moral evaluation process and action. Basic concepts that we use the language of business ethics are the values, rights, obligations, rules and relationships. These are the basic concepts of the language of business ethics. Hence, it should be mentioned on their content. Values are relatively permanent desires which themselves look good, and peace and good will. Values also has individual and organization, such as size, profitability or making a quality product, as well as respect for the individual, teamwork, commitment to customers, innovation and integrity as the basic rules.

It is a requirement that gives a person a "space" in which he can action little more formal terms, this space could be called a "sphere of autonomy" of a person, or, more simply, his or her freedom. Rights are rarely absolute. Many people would agree that the range personal rights of others. Usually you have the right to openly state your opinion - as long as no slander another person. Moreover, rights are correlated with duties. Whenever someone has a right, the other is obliged to respect it. It is a mutual recognition of the aforementioned securities and property to anyone and everyone, the principles of which sets limit arbitrariness and prohibits the violation of another's goods and requires recognition and appreciation of the good. The Romans formulated two basic forms of the principle of fairness. To realize and understand the importance of ethics in marketing communications, they must be familiar with the basic factors that influence ethical behaviour, such as: the level of personal sea level organizations (referring to the organization), the level of social morality (Figure 1).

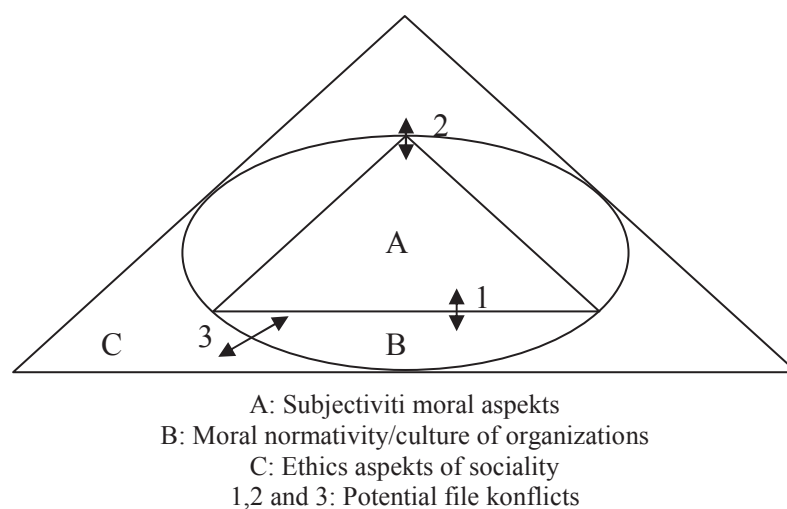


Figure 1: Factors influencing ethical behaviour in the organization

To the company's operations were better, we should identify and evaluate what customers and society as a whole, as well as the competition they want or expect the social responsibility. Four basic strategies

that attempt to solve the problems of social responsibility are: - Strategies reaction, - Defence Strategy, - Adjustment, - Active strategies. Strategy reaction allows the existence of unresolved circumstances or potential problems as long as it does not become aware of the public. Defence strategy of trying to reduce or avoid the additional duty of possible problems. The adaptation strategies, companies recognize the responsibility of marketing actions taken. An active strategy means that the company is aware of its responsibilities in carrying out certain activities, responding to the charges against him.

Ethical public relations and media

In public relations, ethics is only part of business ethics and ethical behaviour in the modern world. Statement of the business mission, which has a binding role in a company, you need to have focus ethical behaviour. The concept of ethical and moral values must start from the top management. The issue of business ethics is the most important issue in the work of all professionals who deal with public relations and represent their employers and clients trying to for their public support of the elections. This fact supports the view that public relations should be the conscience of an organization. Ethics of an organization determines everything the company does, and not everything that she says. It is necessary that it operates in a way that serves, and it is clear to speak, the common good. Ethical and moral values are not absolute concepts and their articulation in any organization must be linked with the culture of the organization, and not with its strategic and tactical policies. Among the ethical issues specific to public relations, according to: Situations in which the target public placed: Promotional fraud, communications fraud; Products / services that are safe; Tactics of public relations at all costs, and so on; Conflicts between personal individuals and public relations strategy and policy and organizational environment in which it operates; Conflicts of interest of public relations professionals regarding the achievement of objectives of the organization and the desire of consumers to receive safe and high quality product; Exaggeration in praising and concealment of facts - open deception and lies; Creating a false image of the organization, product image; Dissemination of false information and false stories and interpretations government officials and participants in policy; Persuasive and aggressive promotional activity.

An important ethical problem is how to harmonize the legal ethical criteria. The law tries to incorporate what society defines as right or wrong, the rules that must be respected, while every contempt sanction. From this point of view, ethics deals with the responsibilities arising from the law, i.e. situations that are legally legal, but unethical. For organizations that are working in different cultural environments, the question of what is good and what is bad in concrete terms is very important. Diversity can be fundamental - as issues related to the understanding of human rights, and whether and to what extent the different ethnic groups should be treated. In such situations, the executive directors of public relations international companies, often seen with the ethical dilemma of whether to fit the codes of ethics of the countries in which they operate? Among the issues to be analyzed separately, for example, standard and passive bribery in some cultures, the introduction of gender equality (Holger, H., 2003). A difficulty to define the ethics of information that is primarily implemented by the connected is the complexity of the media and with the same number of complex social relationships. Some media outlets in the world of solutions for better "ethics" are seen in the appointment of a mediator within certain media outlets (Ombudsman) and the establishment of an independent administrative authority that watches over the implementation of the procedure and which should ensure freedom of expression and the establishment of free communication. Given the frequent breaches of the ethical principles the question is whether all aspects of information ethics fully viewed and understood by the public, the public at large. Via media and journalists is responsible to review their techniques of selecting, training, reporting to establish goals for improvement, and of course even more important to monitor the results. According to one model, which gives Joann Byrd, ombudsman of the Washington Post, the media need to ask themselves a simple, yet fundamental questions before going to the public (Fill Ch., 2002): Are we good reporting? What do we know and how we know it? Who are resources and what is their role? Have you checked the resulting information? Is it reasonable to conclude what

the truth is we know or we do not know anything more than a few facts? Will our story cause a reaction? What kind?

Ethics is the correct theory and moral practice, the correct orientation of human activity in every particular and specific situation and case. The meaning and importance of ethics of the profession lays in the fact that it always reflects the new and questioning the meaning of our vocation to responsible on our professional and general action, on his human values and human involvement. Weber believes that there are two kinds of ethics: the ethics of the Gospel (ethics of pure will and absolute demands) and the ethics of responsibility. He further explains that the ethic of responsibility as opposed to requires a man to take care of the consequences of their moral positions. Ethics pure will is inappropriate real world (if not all accepted) and therefore human relations should be regulated by the general, just laws which everyone must adhere to. The main objective of media ethics should be to provide the public accurate and complete information so well the product or service you promote. The public expects of journalists who should have an obligation to protect information from misuse and distortion. Ethical decision-making in journalism basically refers to the principle of duty of journalists to the public. Freedom is an ethical requirement. Responsible can only be one who is free, and therefore it is important that the ethics of responsibility applies to all participants (actors) communication processes.

CONCLUSION

Ethics is the moral assessment of individual decisions and actions as acceptable or unacceptable, in terms of generally accepted principles of conduct. In marketing communications ethics are all moral principles that define right and wrong behaviour of individuals, organizations or associations. Most of the basic ethical principles governed by the laws and rules of conduct by which one's behaviour adapt to the standards of society. Employees of the organization are expected to abide by the laws, rules and accepted standards of behaviour. Ethical decisions in marketing communication have the purpose of developing relationships and fostering mutual trust, the sender and receiver of the message. The marketing communication is no system of positive values. His main criteria are: truthfulness, honesty, commitment, loyalty, reliability, commitment, responsibility and respect for freedom. The essence of marketing communication makes understanding between an organization and its target group, which is based on trust and respect of the adopted values and lead the establishment of appropriate reputation and goodwill among them.

Social responsibility and ethics are of increasing importance for the activity of market players and growing impact on their business success, especially in today's time and in the modern business environment that celebrates strong competition, increased consumer sensitivity regarding their rights and the protection of the environment and the globalization of business. In terms of increasing globalization, when commercial entities operating in the world and on a larger and wider market, they must adjust their business depending on the environment in which they operate. Trend of CSR has spread throughout the world, and is increasingly practiced in Serbia. Ethics in Marketing and Corporate Social Responsibility act together. A company that creates an organizational culture in a socially acceptable moral philosophy, decisions that have a positive impact on society.

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CINEMEX EXPANSION STRATEGIES TO REDUCE THE DISTANCE MARKET WITH CINEPOLIS

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ABSTRACT

Cinemex is a company that has been characterized by having a very strong expansion strategy, and in recent years has acquired companies being competition as part of its strategy and be able to extend its market power against the industry's leader called Cinepolis, however, this strategy hasn't done Cinemex win market even competing by price. The main strength of Cinepolis is technological innovation so the strategy is to expand the firm is to open new complex projects highly technological. Moreover, opening Cinemex complex projects a lower level. The conclusion of the trial is that for Cinemex can continue to expand should redirect its strategy to open theaters with top-level projects that currently use in order to win market power Cinepolis.

Keywords: Cinemex, duopoly, game theory, no cooperatives games, strategies.

INTRODUCTION

The film industry is one of the most important entertainment industries in the country, based on a duopoly market structure in which two firms compete, Cinepolis and Cinemex. In this paper it is analyzed some strategies followed by Cinemex company expansion. It is analyzed from the point of view of game theory by a comparison of the follower firm against the leader in the industry that is Cinepolis. Comparison is made from the perspective of market share to corroborate what is the firm that uses the best strategies to gain market power so we can expand in a faster way.

BACKGROUND

Cinemex is a company that started operations in 1995. Since its inception has been characterized by the objective to be positioned as the leader in its field and has achieved it in the metropolitan area of Mexico City. Its expansion plan led Cinemex to acquire MMCinemas in February 2008, and the Lumiere cinemas in April 2012 to reach the sum of 190 complexes within the Mexican Republic. Cinemark cinemas were acquired by Cinemex in February 2013 (Alonso, 2011, 13 de junio; Cámara Nacional de la Industria del Cine, 2011). Cinemark cinemas had a total of 30 complexes. With these acquisitions, Cinemex reached 220 complexes located all over the republic against its main competitor, Cinepolis that has 303 rooms. And according to the article published by Gutiérrez (2013) in The Economist, continues its expansion plan and has scheduled several openings throughout Mexico in order to approach the industry leader.

PROBLEM DELIMITATION

Cinemex has a strategy of rapid expansion, so that it has acquired companies that were part of their competition (MMCinemas, Lumiere and Cinemark). Having a clear expansion strategy of the firm and with the information published on the website of items "made in business" in 2012, Cinemex

bet on several openings along the Mexican Republic for the purpose of positioning in the industry which it competes, but Cinemark acquisition materialized. Then in this new context, it is unclear what the new strategy Cinemex.

JUSTIFICATION

The purpose of the present work focuses on the importance of the expansion strategies of a company to compete with the rest of the industry. Growth strategies can be implemented in various ways, one of which is the acquisition and transfer of control of the assets, operations and management of a company to another (purchaser), becoming the first in the last unit, as defined by Peng (2006). But there are other strategies that determine the growth of the company, such as the one is using Cinepolis, competing in quality and technology offer.

Working hypothesis

Cinemex may sustain its growth if reformulates its expansion strategy basing their competition in quality and technology offer.

THEORETICAL – CONCEPTUAL FRAMEWORK

Theory of games: games with incomplete information -the case of simultaneous movements

Game theory is a formal way to analyze the interaction between groups of rational players who interact strategically. Economic agents, in this case the bidders, may adopt very different strategies in their relationships, i. e. strategic interdependence, which is the object of study of game theory (Varian, 2011). For Gibbons (1993) game theory is the study of multiperson decision problems, such problems are posed in the economy.

A game is a process, in which multiple agents interact, subject to rules, with well-defined outcome, characterized by strategic interdependence. The components of the games that are used in game theory are:

Players: There must be two or more players (i) (companies) so they can interact.
Player i : 1,2, ... n.

Types

- a) Rational agents with capacity for rational decision making
- b) Nature. The player does not pursue any particular goal (random decisions).
- c) Action or movement: It's a decision of player i .
- d) Joint information: State specifically what each player knows. It is the knowledge of a player on the game and its features (the set of information changes over time).

Information

According to Rasmussen (1996) different types of information used in game theory are:

- a) Perfect: Games in which the past history of the game is in the public domain and no simultaneous decisions.
- b) Imperfect: When a player does not know what other players have done previously.
- c) Complete: Games in which payments of all players are public information.
- d) Incomplete: When a player does not know the characteristics of their rivals (preferences, strategies).
- e) Symmetric: Nature does not intervene after the players.

f) Uncertainty: Player payments are uncertain. Players try to maximize their expected utility.

Strategy

It must be defined the possible movements (actions) to be made by each player and their sequential or simultaneous. This is the rule that states that action should be taken in every moment of the game, given the set of information (if)

Each player if $\in SI = \{s(1)i, s(2)i, \dots, s(m)i\}$ $m = n^o$ number of feasible strategies.
 $S = \{s1, s2, \dots, sn\}$ $n =$ number of players.

Payments

There must be a specific payment. It indicates the value that reaches the player after the nature and other players have selected their action and developed the game.

Results: Must be known the results obtained by every one of the players for each possible set of actions that are followed. Is the set of elements of the game that the analyst selects once the game was played, to summarize or describe what will happen.

To determine the equilibrium and solving games, these are defined in terms of dominant strategy (Gibbons, 1993) as one strategy for each possible combination of the strategies of the remaining players. Gains of these players are strictly less than the gain of the player's strategy that has a strictly dominant strategy.

When the combination of strategies in which each strategy is an optimal response to the other, as all players use optimal responses, none has reason to change strategy. The combination of strategies is said to be in equilibrium i.e. that is stable. This is what is defined as Nash equilibrium (Sánchez, 2004). This balance is the optimal choice as it provides better benefits than any other strategy taken. Varian (2006) explains that Nash equilibrium always consists of dominant strategies but not always a dominant strategy is Nash equilibrium.

To analyze the Cinemex expansion strategies are used games with incomplete information. Games with incomplete information are characterized by at least one player who does not know payments as an unknown function of another player. These are simultaneous games in which the players do not know any relevant element of the opponent's payoff function.

Reasons to make acquisitions

One of the main reasons for making an acquisition is productive synergies that can generate a business (Abellán, 2004):

- a) Cost reduction through economies of scale and scope.
- b) Improving strategic benefits and income resources.
- c) Growth: to grow in the current market or enter new ones.
- d) Market power: increase the market share of the company.

SETTING CONTEXT

According to the statistics of the Mexican Institute of Cinematography and to raise the scheme in a general context of competition for this industry, the movie industry in 2012 generated revenues of \$ 10, 674 '274, 000 in Mexico. In 2011, the exhibition film industry attended 205 million of people who are basically divided between 4 companies, Cinopolis, Cinemex, Cinemas and Lumpier. This situation raises oligopolistic market structure and in 2012 228 million people attended which was

partitioned between 3 and then between two companies. Thus, this indicates that the exhibition industry of films in Mexico currently has a duopolistic structure.



Figure 1: Assistance average by State 2011-2012. Source: Instituto Mexicano de la Cinematografía (IMCINE) (2011, 2012).

In Table 1 it is analyzed some indicators of the film industry in 2011 and 2012. It is appreciated that Cinopolis increased the percentage of their screens from 30% to 33%. This is due to the acquisition of the Lumiere cinema. There is clear that Cinemex expansion strategy is based on acquisitions.

According to Zozaya (2009), an acquisition is the purchase of one company by another resulting in a larger-size and is one of the ways used today to increase size and gain competitiveness. That is why Cinemex followed its strategy and acquired most of its competition being its last big move buying the Cinemark cinemas. Thus, Cinemark cinemas have reached 38% of the complex to 41% of Cinopolis, which appears to shorten distance with the leader but is not reflected in just as the percentage of market participants (market share). That despite the short distance that exists in the percentage of complex number by these two companies, there is a difference of 15%.

Table 1: Comparison of indicators in Mexico exhibiting percentages

Exhibitor	Percentage of exhibitors		Cinemas screens Percent		Percentage of assistants		Percentage of Income	
	2011	2012	2011	2012	2011	2012	2011	2012
Cinopolis	41	42	48	49	58	60	62	64
Cinemex	30	33	34	36	28	29	27	27
Cinemark	6	5	6	6	6	6	6	5
Other	23	20	12	9	8	5	6	4

Source: Instituto Mexicano de la Cinematografía (IMCINE) (2011, 2012)

Analyzing the growth strategies of competition

In an article published by Mendoza (2012) by CNN Expansion Magazine, the Cinopolis CEO Alejandro Ramirez, explains the strategies that have been crucial to the growth of the firm that runs:

- a) Reinvests about 90% of their profits.
- b) Go a step further, means that at the end of 2013 all Cinopolis screens will feature digital projection technology which will help to save costs and improve the customer experience.
- c) Know your audience

- d) Factor surprise: Investment in technological innovations, such as 3d and 4d screens of which are the only suppliers in the country.

Moreover, the general manager of marketing Cinemex, Claudio Sanchez, told the newspaper El Universal in 2012 that have been investing millions in acquisitions, renovations and new openings that have been historic for the firm, in order to monopolize the market share. Moreover, employing the strategic variable is price, to achieve thus attracting more attendees.

The following table is a comparison of the overall context of the two companies.

Cinemex, despite Cinemas Lumiere acquired in 2012, had no growth in terms of market share as noted in Figures 2, 3 and 4, even to acquire Cinemark cinemas had no substantial growth in terms of market share.

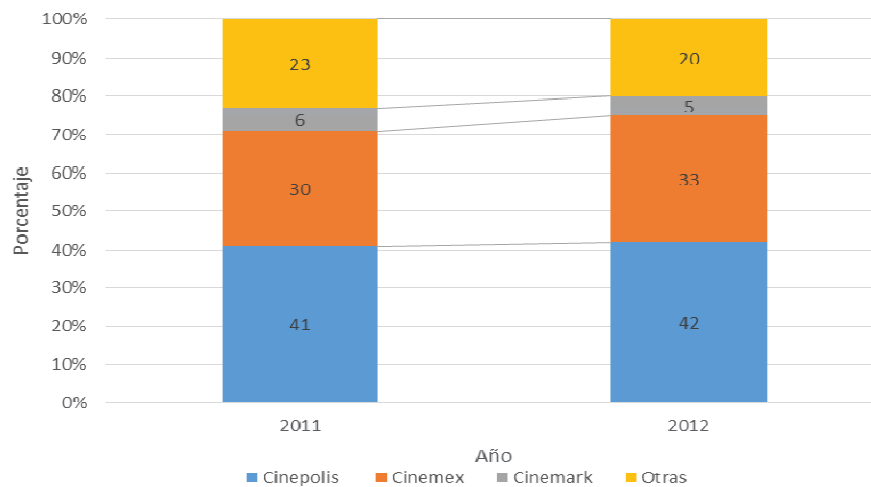


Figure 2: Market share by number of cinemas
 Source: Instituto Mexicano de la Cinematografía (IMCINE) (2011, 2012)

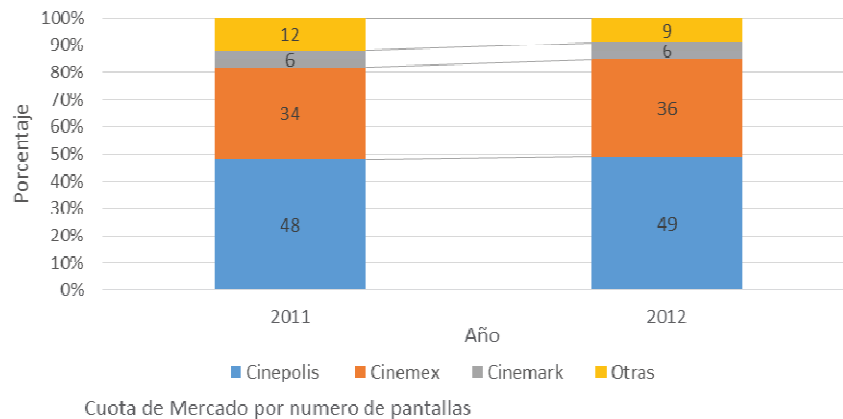


Figure 3: Market share by number of screens
 Source: Instituto Mexicano de la Cinematografía (IMCINE) (2011, 2012)

The main purpose of the company is to cut away in front of its competitor. But there is observed that the little growth that the company gets is because local theaters stop receiving market and even Cinepolis also gains market share from local cinemas every year just in greater proportion than Cinemex. Figure 5 shows that Cinemex only has obtained market share through acquisitions strategies and not by beating Cinepolis market in direct competition or even by giving lower prices. Hence, it is concluded that the main factor to win market share and technological innovation unlike differences in offered services between the two companies that are screens and larger rooms by Cinepolis.

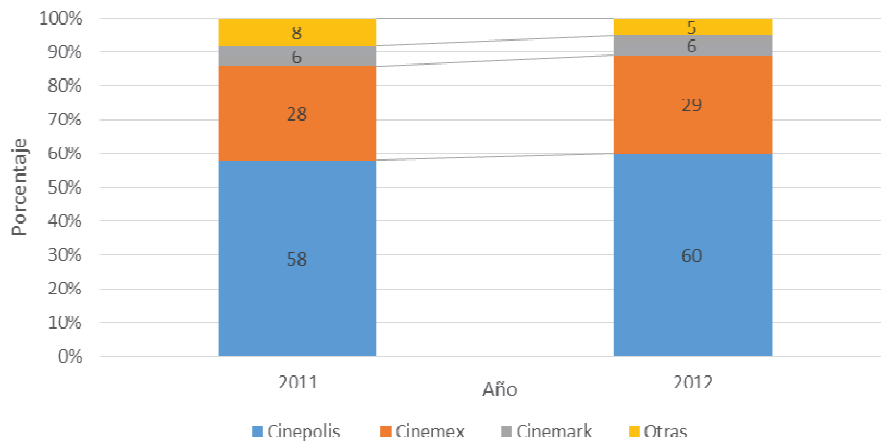


Figure 4: Market share for attendance.

Source: Instituto Mexicano de la Cinematografía (IMCINE) (2011, 2012)

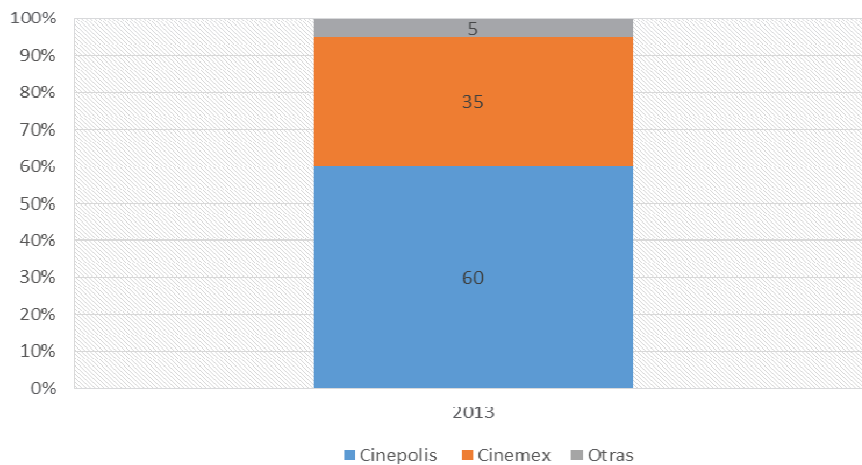


Figure 5: Market share by attendance.

Source: Instituto Mexicano de la Cinematografía (IMCINE) (2011, 2012)

METHOD

The method used in this research is a comparison of indicators between the two largest chains of movie exhibitors: Cinepolis and Cinemex and use of game theory to analyze it based on an example written by Fernández (2002) in his book "Theory of Games: their application in economics."

Games with incomplete information: the case of simultaneous movements.

Players

E1=Cinepolis

E2=Cinemex

Rules

Each company has 2 options to do: Expand or not to expand.

- a) There are 5 points that do not belong to any company.
- b) Every company does not know what the other company does.

- c) The movements are simultaneous as they have to develop strategies to implement in the short term.
- d) The e1 (Cinopolis) - manages an expansion project- standard good.
- e) e2 (Cinemex) - There are questions about the type of project that can carry out. This uncertainty comes from the technology that can be used, some features of the product and the form of financing.

Payments

- a) If they expand without making acquisitions with their current projects:
- b) The e1 grows 2 points
- c) The e2 growing 0 points
- d) If e1 expands and e2 does not expand (3, -1)
- e) If both expand (2, 0 + x)
- f) If e1 does not expand and e2 expanded (0, 1 + x)
- g) If none expands everything stays the same
- h) If the project is good $x = 2$
- i) If the project is standard $x = 0$

*Good project = Opening of new cinemas with high technology, comfortable seating, large rooms.

Payment matrix

CINEMAX	CINEPOLIS	
	Standard project (X=0)	
	Expand	Not expand
Expand	(2,0)	(3-1)
Not expand	(-1,1)	(0,0)

CINEMEX	CINEPOLIS	
	Good project (X=2)	
	Expand	Not expand
Expand	(2,2)	(3-1)
Not expand	(-1,3)	(0,0)

ANALYSIS OF RESULTS

- A. Cinopolis always prefers to carry out a good project, since it is its dominant strategy as the company Cinemex.
- B. The dominant strategy of both companies is expanding, then it is Nash equilibrium, in this way, both companies will reap the greatest benefits of the market.

CONCLUSIONS AND RECOMMENDATIONS

The Cinemex expansion strategy should focus on opening new complex with a technology offer enough to compete with Cinopolis. The variable price is not insignificant to increase market share in this industry, since the only difference between the services offered by these two companies is the price range, offer of technology, sizes of rooms and displays. In the last 3 Cinopolis has advantage and are those that appear to be the variables that define which company gets more market share.

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ATTITUDES OF TOURISTS TOWARDS GASTRONOMIC TOURISM IN SERBIA: EMPIRICAL RESEARCH

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ABSTRACT

In the past few decades, the growing competition among tourist destinations leads to the development of attractions that will occupy the attention of potential tourists. Many tourist destinations use their food and kitchen to be positioned on the market. Compared with others tourist destinations which make extensive use of food as part of its core positioning statement, Serbia makes little reference to it, even though its indigenous cuisine is unique and rich. This paper deals with the sources of gastronomic tourism in our country as well as the characteristics of potential tourists.

Keywords: gastronomic tourism, brand, food preferences, gastronomic festivals, Serbian perspective.

INTRODUCTION

Tourist destinations increasingly reflect the understanding that food and cuisine of a country are key elements which can become a wide known brand through demonstration of cultures characteristics and local differences. In order to become noticed on world market, as a new gastronomic destination, we need to know how to use our existing resources and how to use traditional Serbian gastronomic offer as a powerful tool in developing the strategy of branding the whole country. There are numerous countries which boosted the gastronomic branches and the number of tourists in the country. One of the best campaigns whose example is to be followed is Wales with the slogan "The taste of Wales". For an example, Australia tried to integrate culinary tourism in all other forms of tourism on the continent (Cambourne and Macionis 2003). Canada developed a brand of "Niagara Cuisine" (Telfer and Hashimoto 2003). Henderson (2004) emphasises that the characteristics of Singapore geography, culture and modernism are best presented in their food and that they represent the highpoint of their tourist organisation. All of these examples imply that food is either directly or indirectly connected with the uniqueness of each destination; to encourage tourists to try and experience the local kitchen, and the most important thing is that it can be a powerful medium for promoting and branding a country. Accordingly, numerous researchers dedicated their research to studying the relationship between food and certain tourist destination. Boyne et al. (2002) discovered that tourists spend around 40% of their budget on food. The manual from 2004 on research of spending on food markets and restaurants wrote that travellers spend around 50% of their food budget, in restaurants (Graziani 2003).

It is important to define a few basic terms: food tourism, culinary tourism and gastronomic tourism. Hall and Mitchell (2001) define the food tourism as "visiting primary and secondary manufacturers of food, food festivals, restaurants and all those locations whose primary purpose is the degustation of food." As far as gastronomic tourism is concerned, Santich (2004) considers that is every journey whose motivation is, even if it is not the main motivation, consummation of food and

beverages. This author also points out that gastronomic tourism refers to involvement in another culture especially the part which involves food, beverages, people and places.

The term culinary tourism was developed by Lucy Long in 1998 (Long 2004) and it is in accordance with the concept that tourist can experience the culture through food, she says that culinary tourism is:” purposeful, exploring experience in consuming, preparing and presenting food, local cuisine and menu.” Wolf (2002) considers that the purpose of culinary tourism is to explore and enjoy in local specialties and acquiring of an unforgettable experience. Ignatov and Smith (2006) define culinary tourism as tourism where buying or consuming of local food or viewing and exploring the process of food production are main motive of the journey or at least an important part of it. However, culinary tourism increases the level of self-consciousness through visiting of the tourist destinations through food which is different from the usual food consumption on regular trips. Culinary tourism implies that every local culture has an interesting story related to its food and that there is a transfer of local customs and information.

The existing studies regarding tourism food consumption are mainly focused on the research in the field of food service (Nield et al., 2000), local food consumption (Kim et al., 2009), food/gastronomic experiences in tourism (Chang et al., 2011) as well as tourism of special interest. Although the results of numerous studies shows that food can be a key tourist attraction, one of the challenges for Serbia is development of a clear and consistent food identity as a brand which will map Serbia as a culinary tourism destination.

The aim of this research is to research gastronomic knowledge of the tourism in Serbia, as well as to determine the most important characteristics of the food festival as a way of promoting this kind of tourism form. Therefore, in this paper are shown results of pilot researches which refer to attitudes of respondents about Serbian potentials as gastronomic destination, but also characteristics of food festival which respondents considered important during evaluating festival.

THE PREFERENCES OF CONSUMERS IN CULINARY TOURISM

The consumer agricultural and food products is developed under the influence of global culture which is made up from following factors: greater mobility of consumers and travels, liberalisation of foreign trade policy, development of technology and world media, an increasing number of world events and the development of global brands (Veljković, 2006). Besides global, the individuals culture also influences its preferences (some cultures eat insects as a valuable source of proteins and some do not; some consume the meat of an animal and some do not). Different ways of acquiring, preparing and consuming in different societies are called “food routes”. “Food routes” is a complex behaviour which has four main characteristics. The first claims that there are no two cultures that have the same food routes. The second relates to standardisation which results in similar and stabile forms of spending in borders of one society. “Food routes” also defines how to eat something. Habits in food consumption are affected by many demographic factors such as population trends, the mobility of population, urbanisation as well as the years and the educational level of population (Kohls and Uhl, 2002). The food market grows with the population. For an example, in USA, waves of immigrants from the nineteen century are replaced with waves of immigrants from Latin America possibilities for traditional food. Great mobility of a population presents new potential habits in diet, as well as urbanisation which is intense in the last couple of decades. Migrations from villages to cities are swapped for migrations from city to suburbia areas. So we can safely conclude that food is a market category which has the most reasons of all products to develop a tendency to spending and regular buying habit. According to Maslovljev's hierarchy, the need to satisfy the existential need for food and water are at the very bottom of the pyramid but it can be under the influence of the lifestyle, so, If we would move from the existential needs for safety, acceptance and self-acknowledgement, food and drink reach fifth level in accordance to consequences to the surrounding by their consuming.

FACTORS THAT INFLUENCE THE BEHAVIOUR OF FOOD CONSUMER

The researches that dealt with behaviour of the consumers mostly focus on studying the tourists and their liking, preferences, choice and consummation. In which, the liking differs from the preferences because it points out the pleasure that comes from the food degustation, while preferences represent a choice between at least two alternatives. Although, people mostly prefer the food they like more, liking is only one of the reasons for creating a preference. Factors such as availability, perceived health value, pleasantness and price can affect preferences but not liking (Logue 1991). As far as choices are concerned, they are a set of aware and unaware decisions which consumers has to make before buying or consuming food. Also, the consummation of food regards on the amount of food the individual will eat. According Rozin (2006), these categories do not explain in total the behaviour of the consumer, so he introduced the “intervening” variables and grouped them in three main categories: individual, food and environment.

Food consumption is recognised as a complex behaviour, with cultural, social, psychological, and sensory acceptance factors all playing a role in the decision-making process (Sobal et al., 2006). According to another understanding, these factors can be classified into three broad categories: the individual, the food, and the environment. Food in general contributes with its sensory factors such as flavour, aroma, texture and appearance, whereas the environment presents social, cultural, economic and physical influences. As for the individual, socio-cultural, psychological, and physiological factors are recognised to exert direct or indirect effects on food consumption behaviour. Amongst these three broad categories, factors relating to ‘the individual’ are widely accepted to be extremely crucial in explaining the variations in food consumption (Rozin 2006).

Culture and religion have been the main factors of food consumption for a long time. Culture is the main factor which determines the food an individual can consume. It affects the groceries which are allowed and if the food quality is acceptable in sense of their taste characteristics. According to Rozin and Rozine (1981), basic foods, cooking techniques and flavour principles are three main factors which separate one cuisine from another. Religion affects the habits in diet by forbidding the consummation of certain food (Islam, Judaism), it commits the believers to special ways of preparation of the food (halal and kosher food). A study has shown that Italians, Japanese and French prefer their own kitchen and almost always avoid local food, while Americans are eager to try something new (Pizam and Sussmann 1995).

Socio-demographic factors are the ones related to gender, age, education, marital status, occupation as well as the incomes of a household which should reflect different preferences in the food consumption. Khan (1981) believes that because of the reduced sensitivity of their smell and taste receptors, older people have different preferences from than young people do, while Rozin (2006) believes that avoiding the use of meat, weight balancing and low calorie food diet are much more characteristic for men than for women in USA. As far as the consumption of local food is concerned, it is mostly affected by three variables: gender, age and educational level (Kim et al., 2009).

Personal characteristics as a determinant of food choices have started to be acknowledged as rather important. They affect different behaviours in consumers. For an example, the two main personal characteristic in culinary tourism are: fear of new things and a need for something different (Pliner and Salvy, 2006). When it comes to personal characteristics, people usually prefer the food that is known to them. Past experiences from exposure to a certain cuisine definitely affect the behaviour in food consumption since there is a correlation between the number of return visits and local specialities. The chances are much bigger chance that a tourist which had some experience with a similar cuisine will return than there are chances with the one that has not. And final and one extremely important factor is motivation. There are a few ways on which the food can encourage tourists to travel. First of all, it can be a physical motivator, cultural, interpersonal and status – prestige motive – that is.

EMPIRICAL RESEARCH

Here the results of pilot research will be shown. These results refer to attitudes of consumers towards gastronomic tourism in Serbia and identify key attributes which characterize gastronomic manifestation. The survey was conducted in Serbia, in February 2014. The sample size was 31 respondents. The demographic data are summarized in Table 1. The questionnaire included: (1) Instructions, (2) demographic questions, (3) consumer attitudes and 4) evaluation of attributes.

Table 1: Demographic data

Variable	Description	Percentage (%)
Gender	Male	38.7
	Female	61.3
Age	Up to 19 years	32.3
	20-30 years	19.4
	31-45 years	19.4
	46-60 years	22.6
	Over 60 years	6.5
Education	Elementary school	/
	High school	41.9
	University (graduate, undergraduate)	51.6
	Masters degree, magister, PhD	6.5
Status	Employed	38.7
	Unemployed	48.4
	Retired	12.9
Monthly income (per household member)	Up to 21000 RSD	9.7
	21000-50000 RSD	51.0
	Over 50000 RSD	39.3

When it is about awareness of respondents about existence of gastronomic tourism 58% of them have heard about this form of tourism, 26% is not sure if they have heard of this form of tourist movement. Only 16% respondents were uninformed about this form of tourism. The analysis of gastronomic events for which respondents most often heard have shown that as many as 11 respondents said Slaninijada (Bacon festival), 7 respondents said Kupusijada (cabbage festival), while the 6 respondents opted Kobasicijada i Roštiljada (Sausage and Grill). Other events that are listed are: Mudijada, Pasuljijada, Škembijada, Ethnic Food Fair, Dani ludaje (Crazy Days), Cheese festival. Only two respondents mentioned fish gastronomic events (Fish fest and Alas nights).

Through the analysis of the frequency of visits of gastronomic events, it can be seen that 61% of respondents visit the event, although rarely, while 39% have never visited event of this kind. By analysing the participants of different ages and their frequency of visiting the gastronomic events, it can be seen that the majority of respondents up to 80% of those who attend this events are people from 31 to 60 years old. It was found that the respondents of both sexes almost equally attend events related to food, although there is more women than men. Through research attitudes of respondents about the potential of Serbia to attract tourists oriented towards food and drink, analyses have shown that 39% of respondents completely agree that our country has the potential to develop this type of tourism. 55% of respondents generally agreed with this statement, one respondent neither agrees nor disagrees with this attitude. Only one respondent believes that Serbia has no potential for the development of this form of tourism. This pilot survey has revealed that 23% of respondents fully agreed that the authentic food and drink can have a strong influence on the economic development of Serbia, while 61% of respondents generally agreed with this attitude. 13% of respondents do not have a clearly defined attitude connected to influence of Serbian food and drinks on the economic development of our country which means that they neither agree nor disagree. And only one respondent disagreed with this attitude.

Agriculture, food and gourmet products that are commonly considered brand of Serbia are: fruits and vegetables (plums, raspberries, grapes, apples, cabbage (futoški), peppers from Leskovac

potatoes from Ivanjica, food gastronomic products (Sarma (cabbage rolls), Gibanica (cheese pie), kajmak (sour milk cream), cheese, corn bread, Pršuta (ham), Čvarci (meat peaces), Pljeskavica, bacon, Leskovac grill, buckwheat, corn flour, ćevapi (meanced meat), kulen sausage, Zlatibor cheese, mangulitsa pig meat, sudžuk sausage, pihtije. Beverages that respondents most often cited as the brand of Serbia are rakija (plum brandy), wine, Banat Riesling, Viljamovka (pear brendy), fruit juices, brandy Rubin.

To determine the most important characteristics of gastronomic events, respondents evaluated 13 attributes, ranging from 1 to 10. The list of attributes and their significance to the average level of the entire sample are shown in Table 2

Table 2: Attributes importance

Rank	Attribute	Description	min	max	means	std.dev.
1	Type of cosine	Local, national or international cuisine	6	10	9.06	1.153
2	Possibility to taste	Paid and free tasting	3	10	8.06	2.095
3	Aesthetic shaping of food and presentation	High, medium, or low level of shaping	4	10	8.03	1.749
4	Duration of existence, tradition	Festival with tradition, new festival or festival which exist for a few years	2	10	7.90	1.769
5	Location	Rural or city environment	3	10	7.87	2.032
6	Buying ability	Exist or not exist ability to buy	3	10	7.68	2.306
7	Duration	1 day, 2 days or 3 days	2	10	7.65	1.910
8	Destination distance	Distance 1 hour drive, distance 2 hours drive or more than 3 hours drive	2	10	7.52	2.441
9	Entertainment and accompany contents	Rich or poor entertainment events	3	10	7.45	1.941
10	Access to information on festival	Very good, good or lousy access to information	2	10	6.94	1.907
11	Parking place	Outside, inside, or secured parking	2	10	6.87	1.746
12	Consumption place	Sitting, standing, or for take away	3	10	6.77	1.759
13	Souvenir offer	High or low offer	1	10	6.10	2.103

As shown in Table 2, the most important attribute for the entire sample is a "range of food" with an average score 9:06, while none of the respondents attribute was rated less than 6. With a somewhat lower average grade, evaluated the following attributes: "tasting" and "aesthetic design and presentation of food." Minimum GPA is the attribute "souvenirs". Based on the analysis of the highest and lowest attribute it can be said that there is great heterogeneity of consumer preferences, which will be the basis for future research directions. When analysing the relationship between gender and the range of food, it is interesting that the vast majority of men prefer local specialities (80%) and local cuisine (20%), whereas no man would not choose international cuisine, which can not be said for women. Also men prefer events that take place in rural areas (80%) while women are indifferent about the place where they will be held. Considering the age structure and location they prefer, it can be concluded that the older respondents prefer events held in the city while younger prefer rural areas, up to 88% of respondents fewer than 19 would prefer to visit the festival, which takes place in rural areas, while respondents from 46-60 years favour urban areas. It can be also noted that only respondents between 31 and 45 years old (80%), prefer international cuisine, while others prefer local specialities and national cuisine. Further analysis showed that respondents of different ages very consistent when it comes to the length of existence of the festival and that almost all of that, 89% would prefer to visit the festival, which has tradition. If we take into account the income of the respondents, the results were as expected when it comes to the frequency of visiting food festivals, as those with higher incomes often go to these events. Local specialities are very present in all respondents, regardless of income, while among those with higher incomes, there are some who prefer international cuisine.

CONCLUSIONS

Number of gastronomic events in the world is increasing along with growing interest in culinary tourism, as interesting forms of recreation and tourist attractions. Branding Serbian food and cuisine need to promote Serbia as a new gastronomic tourism destination, which would be a long

term process and short term results should not be expected. For beginning it is necessary to identify the representative gourmet, food and agricultural products that could be used as a brand and this products must be located in the local gastronomy culture context for storytelling . Based on the determination of the most important characteristics of food festivals it is possible to create a unique tourism package that would be presented not only in the regional but also in the global market. In order to formulate appropriate strategies for branding Serbia as a gastronomic destination, a systematic approach is needed to put gastronomy potential to support the development of tourism. It is expected that these strategies take potential tourists to unforgettable gastronomic journey.

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ONLINE PUBLIC RELATIONS IN SERBIA

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ABSTRACT

As representatives of organizations and companies, PR practitioners are faced with a constant need to improve their communication skills and follow trends in their development. One of the current trends among researchers is to determine the impact of online PR communications to the success of organizations and companies. This paper presents the situation in the field of online public relations in Serbia.

Key words: on line public relations, public relations in Serbia, communication trends

INTRODUCTION

Organizational need to communicate has created public relations – professional activity that helps organization and its publics adapt mutually to each other. According to (Kotler & Armstrong, 1996), public relations professionals are tasked to build good relationships with different audiences, to build a good image of the organization and resolve problems due to unfavorable stories, rumors and events.

Experiences with public relations have shown that influencing public opinion can achieve objectives ranging from persuading people to become aware of healthy eating, to promoting a politician so people will vote for them (Gordon, 2011). To achieve an organization's objectives, public relations must identify the relevant public's opinion and then either consolidated it or develop it. Practitioner need to understand communication processes on order to see how this can be done.

Today public relations are also driven by a rapidly developing media communications technology, creating a fragmented media, with more diverse publics who have many different and overlapping interests. Identifying these publics and reaching them is today's priority because of their increased influence on organizations.

ON LINE PUBLIC RELATIONS

On line public relations covers that part of public relations practice, which empowers an organization's internal and external publics to use the internet for optimum benefit to the organization.

Dominating today's media-centered lifestyle, social media are revolutionizing how publics interact with organizations and companies. Recent reports suggest that people now use social media more

frequently than a company's official website when searching for information on a company, brand, or product (Dei Worldwide, 2008).

Corporate pages on social networking sites (SNSs) have become the key platform where publics interact with companies and organizations around the world (Men, Sunny Tsai, 2013).

Accordingly, social media have changed how corporate-related content is created, distributed, and consumed; a company's image and reputation is now largely shaped by the "likes," "posts," and "tweets" of individuals connected through social media (Muntinga, Moorman, & Smit, 2011).

At the same time, social media offer unprecedented opportunities for corporate communicators to reach publics in their social communities and build relationships with online stakeholders on a more personal level (Kelly, Kerr, & Drennan, 2010).

As Drury (2008) explained, while promoting a good or service through traditional media focuses on delivering a message, engaging publics via social media "is about building a relationship and conversation with your audience", and facilitating dialog with key publics (e.g. Briones, Kuch, Liu, & Jin, 2011; Smith, 2010).

Information shared through social media and other online platforms can have a significant impact on how consumers perceive organizations, because it provides them with access to different viewpoints and opinions (O'Connor, Höpken, & Gretzel, 2008). Similarly, because organizations and consumers can co-create content and meaning about the destination, social media can have an immediate and far-reaching effect on reputation (Owyang & Toll, 2007).

This paradigm shift makes it imperative for PR professionals and theorists to investigate how and why individuals interact with companies and organizations on SNSs (Men, Sunny Tsai, 2013).

In general, the literature has not yet addressed important theoretical considerations regarding the underlying factors that drive individuals' interactions with companies on corporate SNS pages (Men, Sunny Tsai, 2013). In their paper, the authors have tried to provide a conceptual framework for understanding the motives cited individuals and groups to behave in this way (Men, Sunny Tsai, 2013).

According to the International Telecommunication Union (ITU, 2011), there are over one billion active users of social media worldwide, and SNSs such as Facebook and Twitter dominate the digital scene.

Muntinga et al.'s (2011) typology on consumers' online corporate-related activities (COBRA) classifies user interaction and involvement with corporate SNS pages based on three continuous engagement levels:

1. the lowest level of content consumption (e.g., viewing videos and pictures and reading product reviews);
2. moderate level of contributions to page content (e.g., rating products or companies, taking part in wall post conversations, and commenting on posted videos or pictures);
3. the highest level of creation, which refers to creating and sharing user-generated content (UGC).

Specifically, prior studies have identified six key motivators of SNS usage. First, "entertainment" involves the gratification, relaxation, enjoyment, and emotional relief enabled by temporarily escaping from mundane routines (Park, Kee, & Valenzuela, 2009; Shao, 2009). Second, "social integration" is concerned with one's need to belong and involves support from fellow media users and the resulting enhanced interpersonal connections (Daugherty, Eastin, & Bright, 2008; Kaye, 2007). Third, the motivator of "personal identity" addresses an individual's identity management, which involves self-expression, identity management, and self-fulfillment (Papacharissi, 2007). Fourth, the "information" motivator pertains to the search for information, advice, and opinions (Kaye, 2007; Park et al., 2009). Fifth, in terms of the social media-specific motivations,

“remuneration” refers to reasons based on rewards and economic incentives (e.g., coupons and promotions) that are commonly shared and disseminated through social media (Wang & Fesenmaier, 2003). The final motivator distinct for social media is “empowerment” – the use of social media to demand improvement and excellence from the company.

Unlike a company’s official website, corporate SNS pages enable the creation of organic communities where stakeholders socialize with not only the corporate representatives but also with each other. In other words, a corporate SNS page is engaging because not only that it provides useful or entertaining information but also because it serves as a communal environment where consumers can share resources and provide support to each other. Users who “like” the same corporate SNS page also often “like” and comment on each other’s posts. The communal atmosphere encourages users to share user-generated content, such as product reviews, photos, and videos, which, in turn, strengthens group dynamics and public engagement.

For the individual user, because activities such as joining a fan page and liking a company’s profile page are often visible to one’s online connections, such group and community participation further serves to express and manage one’s social identities. For instance, Bagozzi and Dholakia’s (2002) study on online purchases suggests that consumers who share similar social identities based on their membership in the same online community (i.e., an e-commerce website) tend to follow group norms that animate group dynamics, which, in turn, deepen their engagement with the virtual community.

Because SNSs are a multimedia tool that easily integrates multimedia messages, online games, and web-based applications, the content of corporate SNS pages is usually more entertaining and enjoyable than that found on official company websites (Men, Sunny Tsai, 2013).

OVERVIEW OF THE SITUATION IN SERBIA IN ONLINE PUBLIC RELATIONS

Research conducted in Serbia, showed that surveyed companies recognize the importance of online PR activities, as well as the importance of building a stable online communications. More than 90 percent of the surveyed representatives of organizations use online tools and social networks in PR communication, but no longer than one to three years. Almost 80 percent of respondents believe that social networks are important for the work they do, and the social network they highlight is Facebook. Social networks are used every day, mainly for the following purposes: to publish news and information, to promote the brand, for special offers, etc. The observed results of this practice are reflected in increasing visibility and brand awareness, in improving relationships with customers, in building brand loyalty among consumers, as well as in a significant increase of sales.

On the other hand, the results of surveys conducted with the social networks users are a bit different. Over 80 percent of respondents use social networks on a daily basis, however, their interest in organizational community pages, and pages of their products and brands is extremely low. Only 12 percent of respondents regularly follow the Facebook page of the organizations and companies, and only 20 percent of respondents follow brand and product pages. Respondents also rated the frequency of social networks usage in following purposes: following promotional activities of organizations and companies, informing about organizations and companies, tracking information about job opportunities, direct communication with organizations and companies, purchase of products, and other activities related to communication with organizations and businesses. Ratings given to these questions are also very low, and are in range from never to sometimes (grades from one to three, out of five). In these responses, there is a key disagreement about social network comprehension, by the user and by the representatives of organizations, in Serbia. As these were not the expected results of research among users of social networks, the answer to the question "why this difference exists?" is not possible to give at this very moment. This, however, opens a new subject to research. Finding reasons for this “comprehension gap” may be very valuable for public relations practitioners.

CONCLUSION

Online public relations created the opportunity for people to interact to share and to add their own values to the relationship they have with organization. This added relationship values are building reputations for the organization, and therefore increasing value of the organizations products and services. Social networks can get organizations to engage with wider audiences and strengthen relationships with existing customers. Creating right social media campaign may be difficult task for PR practitioners, but investing resources in this field can contribute to the success of the organization in many ways.

It is clear that online public relations in Serbia are at the very beginning of their development. So far, use of this method of public relations, in developed economies, proved to be a positive step. A lack of understanding of this aspect of public relations still exists among PR practitioners in Serbia. However, current progress is impossible to deny.

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Session E: ECONOMY

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EXTERNAL GROWTH STRATEGIES OF BANKS IN THE SERBIAN MARKET

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ABSTRACT

External growth in globalization, deregulation and market integration becomes a necessity. Banks to be more competitive and expanding its market share are faced with many decisions when selecting external growth strategies on the financial market. The aim of this paper is to analyze the present strategy of external growth of banks in the financial market in Serbia and to show how they had an impact on the structure of the entire banking system. Such an analysis would serve to draw conclusions whether the option available external growth strategies have positive or negative effects that are stimulating and limiting factors for their implementation.

Key words: strategy, external growth, banks, financial market

INTRODUCTION

Globalization, deregulation, and technological progress represent main causes for the increase in takeover activity through mergers and acquisitions in the financial services sector. Global surroundings “force” companies to concentration through mergers, acquisitions and other forms of company integration.

Mergers and acquisitions represent two most common external growth strategies of company. Mergers are defined as merging of two companies into a completely new one where assets from previous companies are transferred to the new one, whereas acquisitions represent a takeover of a weaker company by the stronger company where the weaker one, i.e. acquired company ceases to exist as a legal entity but becomes a part of the acquirer company. Mergers and acquisitions can be achieved in three directions of growth: horizontal, vertical and conglomerate. In banking sector horizontal growth is achieved when merger or takeover is done between banks, i.e. within the same industry in order to achieve the economy of scale, vertical growth is achieved when merger and takeover is done for example between a bank and an insurance company thus using the same distribution channels to sell wider range of products, while conglomerate growth is achieved in creating financial supermarkets that, in one place, offer clients services of product purchase, loans, lease as well as insurance services.

The aim of the research paper is to conduct a comprehensive analysis of the Serbian banking sector in ten-year period, with special emphasis on market share analysis of foreign and domestic banks in the given period as well as market share analysis prior to and after the takeover of domestic banks by foreign banks.

MAIN CAUSES FOR MERGERS AND ACQUISITIONS IN BANKING

Regarding takeover activities in the financial services sector, at least five factors of accelerated mergers and financial institutions integration can be identified in recent years (Berger et al., 1999):

1. Technological progress. This factor influences realization of economy of scale in providing financial services. Applying new techniques of financial engineering (derivative contracts and risk management, new payment systems, as well as new methods of delivery to the depositors (ATM, online e-banking) is more justifiable and more efficient by large financial institutions.
2. Improved financial conditions. Increased profitability of banks and low interest rates on one hand, and high stock prices on the other, brought about more intense merger activity in financial sector in the recent years.
3. Redundant capacity of financial institutions. Mergers (acquisitions) of financial institutions represent an effective way to eliminate redundant capacity which is a consequence of industry or local market consolidation. In business circumstances with redundant capacities, financial institutions offer ineffective service mix, make less profitable investments and do not achieve the effects of economy of scale. External growth solves the problem of redundant capacity in a less harmful way than sanation and bankruptcy.
4. International market consolidation. Transfer of securities, goods and services in the international market creates a demand for services of international financial institutions in the field of foreign currency, deposits, and loans and similar. Market globalization affects the growth of international mergers (acquisitions) of financial institutions. Globalization, i.e. tendency in world economy to create global investment environment and integrate national markets of capital, represents the key factor in increase in mergers and acquisitions in last ten years. Globalization comprises all forms of economic integration of national economies and companies through world market, where mergers and acquisitions are the most frequent legal form thereof. Global environment “forces” companies to concentrate through mergers, takeovers and other forms of integration (Denčić-Mihajlov, 2004)
5. Deregulation (revoke of geographical and other limitations of competition). In the beginning of 1990s limitations regarding possibilities of geographic expansion of banks were revoked in the USA and Europe. Abolishment of these limitations allowed for a new wave of mergers and acquisitions, in both national and international environment. Deregulation was a driving force for significant merger and acquisition activity in the financial services sector. The idea was to create a field where business logic and market demands – rather than regulatory frames – would determine the structural form of financial companies, in a way that ensures stability and security (Walter, 2004).

ANALYSIS OF BANKING SYSTEM IN SERBIA FROM 2001

Restructuring process of Serbian banking system started in 2001. At the beginning of 2001 banking system included 86 banks, their number was 49 in the end of 2001, whereas today it is 33. Transformation of the banking system of Serbia encompassed restructuring bank ownership through privatization process that referred to buying shares of the banks with majority state capital by foreign banks. Transforming state-owned and socially-owned property into private property created the first prerequisite for the continuance of bank restructuring process through mergers and acquisitions (according to the report of the National Bank of Serbia for year 2001).

According to the report of the National Bank of Serbia for year 2002 the most significant activities regarding ownership restructuring of the banking sector referred to putting into effect law regulations that solved long-standing problem of banking sector – immobilization of over 50% of balance sum of the most significant banks on the basis of old foreign currency savings of citizens and deferral of long-term foreign currency loans. During this period large number of banks was closed down including the biggest financial institutions in the country, and several new banks were founded, mostly owned by foreign banks and ownership reform of the banking sector began

through debt-for-equity conversion of Paris and London Club debt and old foreign currency savings debt. During 2003 reform continued in several directions. One of them was continuance of policy that directs foreign investors to buy domestic banks till the end of privatization process of banks with majority state capital (according to the report of the National Bank of Serbia for year 2003).

At the end of 2003 banking sector of Serbia had in total 47 banks, of which:

- 11 banks in majority ownership of foreign shareholders
- 19 banks with predominant private capital,
- 17 banks predominantly owned by the Republic of Serbia (or the Republic of Serbia being the largest individual shareholder)

Today, according to the report of the National Bank of Serbia for the first quarter of 2012, there are 33 banks operating in the Serbian banking sector, of which:

- 21 banks in foreign ownership
- 12 banks in domestic ownership, 9 thereof have the state as a majority owner or largest individual shareholder and 3 banks are owned by private individuals.

Foreign-owned banks dominate and account for 74% of total assets in banking sector, 74% of capital, 70% of employees and earned profit of 6.6 billion RSD (70% of earned profit in banking sector). Herfindahl–Hirschman concentration index did not exceed 1000 for any of the categories (total income, deposits, assets, lending) indicating moderate concentration.

Foreign-owned banks come from banking groups from 11 countries. In terms of their share in total assets of the banking sector the most significant come from Italy with 22% of overall share, followed by Austria and Greece with 15% each, France 10% and all other countries with 12% of share.

Table 1: Market share of banks taken-over through acquisitions in Serbian market from 2001 - 2012

No.	Bank's name – acquirer	Country of origin	Bank's name – target	Year	Selling price	Entry model	% on the day of entry	% on 31 st March 2012
1.	Erste Bank	Austria	Novosadska banka a.d. Novi Sad	2005	73.1 mil. EUR	Acquisition	2.1 %	2.7%
2.	KBC bank	Belgium	A banka	2007	96.5 mil. EUR	Acquisition	0.5%	1.2%
3.	Credit Agricole bank Serbia	France	Meridian banka a.d. Novi Sad	2005	42 mil. EUR	Acquisition	0.7%	2.0%
4.	Findomestic bank	France	Nova Banka a.d. Beograd	2005	23.7 mil. EUR	Acquisition	0.5%	0.7%
5.	Alpha bank	Greece	Jubanka a.d. Beograd	2006	152 mil. EUR	Acquisition	3.6%	3.2%
6.	Eurobank EFG	Greece	Nacionalna štedionica a.d. Beograd	2006	41.2 mil. EUR	Acquisition	1.6%	6.2%
7.	Pireaus Bank	Greece	Atlas banka a.d. Beograd	2005	19.5 mil. EUR	Acquisition	1.0%	2.2%
8.	Vojvodjanska bank	Greece	Vojvodanska banka	2006	385 mil. EUR	Acquisition	7.2%	3.5%
9.	Intesa bank	Italy	Delta Banka Panonska banka	2005 2008	462 mil. EUR 140 mil. EUR	Acquisition	10.8% 1.9%	14.6%
10.	Unicredit bank	Italy	Eksim banka a.d. Beograd	2004	24.8 mil. EUR	Acquisition	2.5%	7.6%
11.	Marfin Bank (Laiki bank)	Cyprus	Centro banka a.d. Beograd	2006	41.5 mil. EUR	Acquisition	0.9%	1.0%
12.	OTP bank Serbia	Hungary	Niška banka	2006	14.21 mil. EUR	Acquisition	0.6%	1.5%
13.	Credy bank	Slovenia	Credy banka Kragujevac	2010	10 mil. EUR	Acquisition	0.2%	0.5%
14.	NLB bank	Slovenia	Continental banka Novi Sad	2005	49.5 mil. EUR	Acquisition	1.5%	1.5%

Source: The author's table (The table was done based on data taken from the website of the National Bank of Serbia, Bank control, Banking sector – analysis and reports and websites of named banks

Table 1 shows foreign-owned banks that took over domestic banks. We can see that the biggest intensity of takeovers subsequently followed numerous activities regarding restructuring carried out by the National Bank of Serbia, in other words, the completed privatization of most domestic banks represented the first prerequisite for entry of foreign banks to domestic market. Likewise, we can conclude that the intensive takeover activity ended right before the beginning of the world economic crisis in summer of 2008 caused by the collapse of mortgage market, whereafter followed bankruptcy of many leading financial institutions. Due to higher investment risk there were fewer large investments such as mergers and acquisitions by foreign investors. By analyzing the given table we see that Intesa bank has significantly increased its market share that was 14.6% after the takeover of Delta bank (market share of Delta bank on the day of the takeover was 10.8%), and then of Panonska banka (1.9%). Intesa bank at the same time represents the biggest bank measured by the criterion of total assets. Unicredit bank and Eurobank EFG have also seen significant increase in their market share by taking over domestic Eksim bank and Nacionalna stedionica respectively, so share of Unicredit bank went from 2.5% to 7.6%, and that of Eurobank EFG from 1.6% to 6.2%. The destiny of Eksim bank changed; first Credit Anstalt bank Austria took it over in 2004, not long after Credit Anstalt merged with HVB bank becoming a part of that group. HVB bank obtained the operating license in Serbia in 2001. Italian Unicredit bank took over HVB bank in 2005 so the original domestic Eksim bank now belonged to Unicredit bank. EFG Eurobank has, after the takeover of Post bank ad Belgrade in March 2003, taken over Nacionalna stedionica ad Belgrade.

It is interesting that there was a significant drop in market share from 7.2% to 3.5% of Vojvodjanska bank taken over by National bank of Greece, in spite of having kept the old name for the purpose of keeping the existing clients. This drop could be attributed to the entry of many new foreign banks to domestic market and to the takeover of many domestic banks. Takeover of Jubanka by Greek Alpha Bank also resulted in slight market share drop from 3.6% to 3.2% while other nine banks shown in the table have kept unaltered or slightly increased their market share. Credit Agricole bank and Pireaus bank entered Serbian market through recapitalization of Meridian and Atlas Bank, and then took them over. We see that they had market share of 2.0% and 2.2% respectively.

OTP bank from Budapest conducted acquisition of three domestic banks: Niska banka, followed immediately by Kulska banka and Zepter banka. It has market share of 1.5%. NLB bank conducted both acquisition and merger in Serbian market. First it conducted acquisition of domestic Continental bank Novi Sad in 2005, then in 2009 there was a merger between NLB bank Novi Sad and LHB bank Belgrade, which now operate under the common name NLB bank Belgrade. Market share of this bank remained unchanged and amounts to 1.5%.

Remaining seven foreign banks entered Serbian market through Greenfield, and those are: Raiffeisen bank, Societe Generale bank, Procredit bank, Moskovka bank, Opportunity bank, Hypo-Alpe Adria bank in 2003, and Volksbank in 2003. Alpha bank, National Bank of Greece and Unicredit bank first entered Serbian market through Greenfield, but in the meantime the destiny of many banks changed. Some of them conducted acquisition of domestic banks, whilst some were themselves targets of takeovers. Thus National Bank of Greece took over Vojvodjanska Bank without changing the bank's name in order to keep the existing clients and maintain their trust. Alpha bank took over Jubanka, while Unicredit took over Exim bank. Hypo-Alpe Adria bank (Austria) took over Depozitno-kreditna banka ad Belgrade, while Volksbank (Austria) conducted takeover of Trust banka ad Belgrade. According to the reports of the National Bank of Serbia in the first trimester of 2012 the takeover of Austrian Volksbank by Sberbank from Russia took place, so that this bank is now in majority ownership of Russian capital.

Table 2 Market share of foreign banks that entered Serbian market through Greenfield from year 2001 – 2012

No.	Bank's name	Country of origin	Year	Entry model	Market share %
1.	Raiffeisen banka	Austria	2001	Greenfield	6.9%
2.	Societe Generale banka	France	2001	Greenfield	6.9%
3.	Procredit bank	Germany	2001	Greenfield	2.2%
4.	Moskovska bank	Russia	2008	Greenfield	0.2%
5.	Opportunity bank	USA	2002	Greenfield	0.2%
6.	Hypo-Alpe Adria Bank	Austria	2003	Greenfield	5.8%
7.	Volksbank	Austria	2003	Greenfield	3.0%

Source: The author's table: The table was done based on data taken from the website of the National Bank of Serbia, Bank control, Banking sector – analysis and reports

Table 2 shows remaining seven banks (according to the report of the National Bank of Serbia, there are 21 foreign banks operating in domestic market) that first entered Serbian market through Greenfield. We note that market share of Raiffeisen bank, Societe Generale bank and Hypo-Alpe Adria bank is substantial being 6.9%, 6.9% and 5.8% respectively. Such market share puts them in the rank of 10 largest banks in terms of total assets as will be shown in the following table.

Table 3 Market share of ten largest banks in Serbian market in 2012

	Bank name	Billion RSD	%`	Rank
1.	Intesa bank	394	14.6	1
2.	Komercijalna banka	289	10.7	2
3.	Unikredit Bank	206	7.6	3
4.	Societe Generale bank	188	6.9	4
5.	Raiffeisen bank	187	6.9	5
6.	Eurobank EFG	168	6.2	6
7.	Hypo Alpe-Adria Bank	156	5.8	7
8.	AIK bank	147	5.4	8
9.	Vojvodjanska bank	95	3.5	9
10.	Alpha Bank Serbia	86	3.2	10

Source: www.nbs.rs (report of the National Bank of Serbia for year 2012)

From the Table 3 we see that among first ten banks ranked by total assets eight banks are foreign while only two are domestic banks. Komercijalna banka is state-owned. At the end of March 2006, IBRD and Government of Serbia signed the agreement on recapitalization of 25% of capital of Komercijalna banka Belgrade in the amount of 70 million EUR. Market share of Komercijalna banka is 10.7% and it is the second-ranked bank based on the criterion of total assets, preceded only by Intesa Bank, while market share of AIK bank Nis is 5.4%. According to the report of the National Bank of Serbia for the first quarter of 2012 market share of remaining ten domestic banks is not significant and it is: Agrobanka (2.2%), Banka Postanska stedionica (1.5%), Razvojna banka Vojvodine (1.4%), Univerzal banka (1.3%), Cacanska banka (1.2%), Privredna banka Belgrade (1.0%), Srpska banka (0.7%) Jumbes banka (0.4%) Jugobanka (0.3%) Dunavbanka (0.2%).

CONCLUSION

Having conducted the theoretical and practical analysis of motives, incentive and limiting factors in the Serbian market for the arrival of foreign banks, then comparative analysis of the situation, i.e. market share before and after the takeover of domestic banks by foreign banks, a good framework is provided for giving final thoughts and defining scientific contribution of the research paper.

Firstly, through analysis of the situation, market share prior to and after the takeover of domestic banks by foreign banks, and market share of current 21 foreign and 12 domestic banks, we can conclude that most foreign banks achieved market share increase following the takeover. Only two banks experienced a drop in market share while remaining ten had either significant or slight

increase in market share or unaltered market share (Table no.1). By analyzing Table no. 2, showing banks that entered Serbian market through Greenfield we see that some of them also have substantial market share. Market share of domestic banks, with the exception of Komercijalna banka and AIK bank Nis that have a significant market share and belong among ten largest banks in terms of total assets, is not significant and ranges between 0.2% (Dunav bank) and 2.2% (Agro bank).

Secondly, globalization, deregulation and technological progress made an impact on ever greater number of cross-border takeovers. Fifth and sixth merger waves were exclusively motivated by strategic development of companies and greatly affected service sector. Takeovers in banking becoming global and therefore developing countries are easy takeover targets of large banking groups due to an opportunity of increase in net cash flow, elimination of many costs that are duplicated, achieving economy of scale and scope through the use of numerous advantages offered by the target country.

From all stated above it is to be concluded that mergers and acquisitions in banking in the Serbian market will have a tendency of growth in future. Comparative market share analysis of foreign and domestic banks leads us to this conclusion. Apart from two domestic banks, remaining ten domestic banks do not have significant market share. In addition, the conclusion is that in future there will not only be takeovers of domestic banks by foreign banks but also takeovers of foreign banks by large banking groups. A good example is the takeover of Volks bank by Russian Sberbank at the beginning of 2012. At the beginning of 2001 there were 86 banks operating in Serbia, a decade later there are 33 operating banks, of which foreign banks are double the number of domestic ones, thus conclusion being that in future there will be further decrease in number of banks with even greater shift toward foreign banks in Serbian banking system.

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BANKS'S DEBT COLLECTION BY MEANS OF JUDICIAL AND NON-JUDICIAL PROCEEDINGS

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ABSTRACT

With the emergence of the Global Economic Crisis commercial banks on the Serbian market are faced with the constant increase of the problem loans. Poor payment discipline is a burning issue of the modern business which is influencing all societies all over the world. Client's constant payment delays or even complete absence of payment are resulting in radical problem connected with bank's liquidity. This is causing poor business results and, at the same time, they are not able to settle their own debts on time. It can be concluded that, all the participants on the market are entering an "enchanted circle" of nonpayment.

Key words: debt collection, banks, work out

INTRODUCTION

The basic component of the assets that most banks possess is loans, which are granted to business entity and physical entity. For this kind of institutions, loans are the main source of income and the main source of risks. The experience has shown that banks can experience collapse for many reasons, however the main reasons are usually unredeemable loans. A large proportion of problematic placements are in the banks with the domestic capital which indicate the lack of contemporary analytical and technological procedures, expertise, which at the end leads to errors in management and criminal activities. The basic purpose of this paper is to introduce the employees of the Risk Management Directorate with the course of actions in the process of takeover, analysis and the implementation of debt collection procedure by means of judicial and non-judicial proceedings, together with the coordination of activities in this process with the Legal Affairs Directorate.

COURSE OF THE PROCEDURE

The course of procedure is related to defining the settlement strategy, and afterwards the implementation debt collection by means of judicial and non-judicial proceedings. It includes:

1. Insolvent records and assignment of cases
2. Close analysis of the insolvents
3. Draft of the settlement strategy for the Risk Management Committee
4. Risk Management Committee in accordance with the suggested strategy
5. Initiation of the enforced debt collection by means of judicial and non-judicial proceeding
6. The activities during the enforced debt collection by means of judicial and non-judicial proceeding
7. Discharge of the enforced debt collection

INSOLVENT RECORDS AND ASSIGNMENT OF CASES

Insolvent records in the Risk Management Directorate precedes the **handover of the documentation**, where it is checked whether the case is complete from the aspect of documentation and implemented actions which are necessary to be completed before the transfer. Thereby simultaneously, Competent employees to whom the present debtor is appointed for monitoring, within the Directorate are designated.

The Competent associate in the department is conducting a **procedure** which consists of five components:

1. Detailed analysis
2. Contact with the client
3. Definition of the potential strategy proposal for the settlement
4. The draft decision about the strategy collection to the competent authority
5. Coordination of the activities with the Competent employees in the Representative Office

CLOSE ANALYSIS OF THE DEBTOR

Close analysis of the insolvents consist of:

1. Documentation analysis

Consist of several elements constituting of:

- a. *Analysis of the documents concerning collateral*, consists of:
 1. document verification concerning determined collateral,
 2. whether the same data is entered in relevant registers and in which order,
 3. determining the amount of claim that have higher degree of priority in relation to the bank's claim,
 4. determining the collateral value according to the previous available assessment,
 5. information about the current collateral statement and whether there has been any change (concerning property, purpose, correctness etc.)
- b. *Analysis of the submitted financial reports and data from the existing documentation about the client in the bank* (papers for the last approved placement, correspondence with the client etc.)
- c. *Analysis of the basic client information*
- d. *Analysis of the documents concerning co-debtors (warrants), if the mentioned exist,*
- e. *Analysis of the association's ownership structure, and*
- f. *Evaluation of the expenses and expected settlement period length*

Besides that, part of the analysis within the jurisdiction of the Associate is the analysis of the data concerning traffic through the account in the bank, the blockade (of structure, amount of costs etc.), as well as previous business relations with the client. In addition, especially for medium and large enterprises the analysis should include the collection of information through the public information system about the client, owners and directorate.

2. Contact with the client

The contact can be organized over the phone or a meeting in the bank can be scheduled. With the exception, if the competent representative evaluates that it is necessary, there is the possibility of client visitation. During the contact with the client, it is important to point out the seriousness of the situation in which the client is, as well as, that it is of the mutual interest to find the solution acceptable for the both parties. In the case of the bank being in the acceptable position from the aspects of the collateral (in the sense of the adequate existence or first class collateral), the consequences of the activation must be pointed out to the client understandably. When

communicating with the client, the bank must be aware that certain data can be concealed and modified by the client; therefore, the bank should direct the conversation so as to find the real client's status.

With the goal of preferable effect of collection, competent employee can perform scheduling of the meeting within the premises of the bank, client visitation, visitation of the collateral location, in the aim of gathering the information by direct insight on the spot. Besides the client visitation, the meeting can be organized with the co-debtor (warrant), to whom the debtor's position, as well as, the amount of the bank's claim must be pointed out and solutions provided. Of course, one option is joint meeting of the debtor and warrant with the bank's representatives, with the purpose of familiarizing with the situation and probable mutual confrontation. In the situation when the co-debtor (warrant) is at the same time the bank's client, close attention must be paid in order for their ability of repaying obligations not to be jeopardized (especially when the co-debtor's/warrant's obligations are higher than the claim which bank has with the primary debtor), but through negotiations the appropriate modality must be reached that will enable the collection of all bank's debts from the respective clients.

After each contact with the client, written report is constructed and it consists of all the above mentioned data kept in the client's case records and they are used as basis when formulating the strategy of collection.

DEFINITION OF THE POTENTIAL STRATEGY PROPOSAL FOR THE SETTLEMENT

Two major directions which are possible when we are talking about the collection and payment strategies are voluntary and involuntary.

Activities included in this procedure are directed towards involuntary processes in solving the problem. This represents the final option in the case when all previously undertaken activities did not result preferably, i.e. when it is evaluated that on the basis of the previously undertaken activities involuntary debt's settlement is the only option available to the bank.

One of the following preconditions must be fulfilled so that the procedure of involuntary collection against the particular debtor can be initiated:

1. that they are an active legal entity,
2. mortgage on the record in the competent registry of immobility,
3. collateral on the records in the register of collateral (for conducting the procedures of seizure of the lien assets),
4. known address of residence or debtor's home address (unless the procedure is conducted on movables),
5. written proof in the form of transcript List of properties for the provider of the promissory note.

Conditions for initiating non-judicial proceeding of data collection of the bank are:

1. mortgage on the records on the immovable property into the competent register according to the regulations of the Mortgage Law,
2. pledge on the records in the pledge register of the Serbian Business Register Agency.

Basis for initiating involuntary procedure in bank's debt collection is the consent of the Risk Management Committee.

INITIATION OF THE INVOLUNTARY DEBT COLLECTION

On the basis of the Risk Management Committee consent, competent employee in the Risk Management Directorate is preparing the documentation and submitting it to the Representative Office;

Directorate of Legal Affairs submits the Request for debt collection against the debtors which are in debt to the bank. The Request is submitted in 2 (two) copies in the written form. The Request is signed by the authorized entities from the Risk Management Committee.

Depending on whether the debtor / warrant is physical or legal entity, together with the Request additional documentation is submitted.

If the debtor / warrant is a physical entity, additional documentation which is submitted consists of:

- information about the real debtors or warrants' address and phone number;
- original copies of the filled in bills of debtor and/or warrant, if there is a warrant, in the case of debt collection being realized / or conducted on the basis of the bill as an authentic document;
- photocopies of the contract that is a legal grounds, in 3 (three) copies;
- bank's billing claims, in 3 (three) copies;
- photocopies of the Surety agreement, if the warrant exists, in 3 (three) copies;
- documentation about the property (extract/transcript of the immovable property, or the extract from the land certificate if the mortgage has been constituted as a collateral or the debtor, i.e. warrant is the owner of the immovable property – not older than 15 days from the day on which the request has been submitted).
- extract form the Register on Pledges on movable property and rights in APR – Register on Pledges, if the lien has been constituted on the movable property of the debtor, or warrant for security of the debt whose payment is requested;
- balance extract from the Central Securities Depository, if the lien has been constituted on the shares;
- extract from the Register of warehouse receipts for agricultural products, if the lien has been constituted on the warehouse receipts;
- certificate of property over the bank's shares, if the debtor, or warrant is the bank's stockholder;
- additional documentation which is of importance for the debt collection.

If the debtor / warrant is a legal entity, additional documentation which is submitted consists of:

- original copies of the filled in debtor and warrant bills, if the warrant exists in that case the debt collection is realized / or is conducted on the basis of the bill as an authentic document;
- photocopies of the contract which are a legal basis, in 3 (three) copies;
- bank's billing claims, in 3 (three) copies;
- photocopies of the Surety Agreement, if the warrant exists, in 3 (three) copies;
- documentation about the property (extract/transcript of the immovable property, or the extract from the land certificate if the mortgage has been constituted as a collateral or the debtor, that is warrant is the owner of the immovable property – not older than 15 days from the day on which the request has been submitted).
- extract form the Register on Pledges on the movable property and rights in APR – Register on Pledges, if the lien has been constituted on the movable property of the debtor, or warrant for security of the debt whose payment is requested;
- balance extract from the Central Securities Depository, if the lien has been constituted on the shares;
- extract from the Register of warehouse receipts for agricultural products, if the lien has been constituted on the warehouse receipts;
- certificate of property over the bank's shares, if the debtor, or warrant is the bank's stockholder;
- additional documentation which is of importance for the debt collection.

Admonition before court procedure is sent by the Representative Office after the Request has been admitted by the Risk Management Directorate.

ACTIVITIES DURING THE PROCEDURE OF INVOLUNTARY DEBT COLLECTION

Complete and correct request is recorder in the records within the Representative Office and a copy of the Request signed by the authorized entities in the Representative Office is submitted to the submitter of the Request – competent employee in the Risk Management Directorate.

After the complete documentation has been received in the Representative Office initiates the proceeding for debt collection. Based on the data collected the Office initiates judicial / non-judicial proceeding of the debt collection / bankruptcy proceeding, or performs the collection application of bankruptcy / liquidation, and further proceeds in accordance with the instructions given by the Risk Management Committee / Executive Board / Executive Board Director or the Risk Management Directorate.

The Representative Office has the obligation to inform the competent employee from The Risk Management Directorate in writing about the course of the procedure, with the submitting the copies from the held minutes about the hearing, that is all the appropriate documentation which is submitted for consideration, the one which he possess or can obtain (EFI, thereorganization plan draft, reorganization plan, etc.)

After the procedure for the debt collection has been initiated, certificate, report and each written document can only be issued to the debtor, that is, warrant or pledger, who addressed the bank with the request of debt balance, with the previous consent from The Representative Office.

Competent employee from the Risk Management Directorate informs and requests consent from the Risk Management Committee, in the case of partial debt collection through other means, out of the initiated proceeding through which initially adapted strategy is redefined.

If, during the procedure of debt collection within the case, the expert witness has been ordered and the expert witness evidence has been delivered, the expert witness evidence is delivered for the written statement by the Representative Office to the competent employee from the Risk Management Directorate. They are obligated to deliver the statement, depending on the date of the hearing on which the relevant expert witness evidence will be discussed, at the latest 3 (three) days before the date of hearing, to the Representative Office. In the case when The Representative Office does not declare their thoughts about the expert witness evidence or any other documents requested from them in due time, the Representative Office will notify the competent court or any other competent authority, that there are no remarks about the submitted evidence.

Competent employees from the Risk Management Directorate is monitoring the proceeding against the present client and is constantly communicating with competent employees from the Legal Affairs Directorate who are conducting the present proceeding, that is, the one who is communicating with the law office conducting the procedure on the behalf of the bank. His duty is to monitor the present client from the moment of initiating the judicial or non-judicial proceeding of debt collection to the moment of payment from the sold collateral, that is resolving of the risk placements in some other way (liquidation payment, writing-of, etc.)

Considering the duration of the court proceeding, it is necessary for the competent employee to, at least once a year (more often on request), prepare a report about the course of the proceedings and the activities undertaken, as well as, expected outcomes for the clients for whom the employee is in charge of. This report will be submitted to the assistant and the director of the Risk Management Directorate that is to the Risk Management Committee.

DISCHARGE OF THE ENFORCED DEBT COLLECTION

The completed process of debt collection represents the entire or partial settlement of bank's claim (by the means of selling or taking over the collateral, that is of payment from the bankruptcy estate, or, when the competent authority or the competent employee from the bank determines it is expedient, by buying the property from the bankrupted debtor in the bankruptcy procedure with the aim of settling the bank's claims by selling the property later). After the discharge of the procedure, the competent employee from the Representative Office delivers information about the procedure in writing to Risk Management Directorate.

In the case of closure of the complete bank's claim, a warrant is issued to the competent services to enter all the necessary entries and the Risk Management Committee is informed. Afterwards, the received claims are archived according to the bank's procedures.

In the case when the debt was not paid or the debt has been paid partially, and the bank has depleted all the funds available for collecting the debt, after receiving the information from the Representative Office about the completion of the payment procedure, the information which is represented to the Risk Management Committee, about the aftermath of the collection process and the amount of collected debt is prepared, together with the suggestion of write-off for the amount of total claim variance. After the write-off has been conducted, the present debts are archived according to the bank's procedure.

CONCLUSION

The dissolute payment is something every enterprise is faced with. Because of the debtors delay in payment or non-payment the enterprise is faced with difficulties in liquidity, which causes the weakened business results and the inability for timely settlement of obligations. Debt claim is of great importance for each enterprise and it represents one of most sensitive aspects of the business management, especially in the period of market instability.

Complete communication with the debtors is conducted from The Direction of debt claim and it is performed according to the already defined scenarios which have been created depending on the industry in which the client is active, type of debtor, as well as, the situation in which the debt occurred.

It is very important that the solutions which are applied, allow the bank to lower their costs significantly and increase their business efficiency, as well as, to concentrate on their main activity and let the specialized services deal with all the concerns connected to the debts.

Non-judicial alignment is the priority. All the possibilities are depleted. The approach is friendly, but decisive, all the resources that business sector possesses are used so that wanted results are achieved, so that they can keep appropriate business relationship with the business partners, even if appropriate business relationship has been compromised.

If we take into consideration that the greatest challenge for the business sector in Serbia is the decrease in creditworthiness of the clients, as well as the demand for loans, but most importantly a high level of problematic loans, we are reaching to the conclusion that the quality of the debt claim is not a luxury but a need for all credit institutions.

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FACTORS OF CORPORATE CAPITAL STRUCTURE

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ABSTRACT

Financial decisions represent the key decisions in any company. These decisions, above all, relate to finding additional sources for financing the existing scope of business, but also the growth and development of the company. Considering the fact that the goal of every company is its survival and growth, it is logical that financing decisions come down to decisions on corporate capital structure. Capital structure is conditioned by proprietary companies, but it also depends on a large number of other factors whose influence must be taken into consideration during the composition of corporate capital structure. The aim of the paper is to indicate the complexity of these factors.

Key words: capital structure, corporation, factors.

INTRODUCTION

Capital structure is conditioned by the form of enterprise ownership and can be observed from the balance sheet liabilities. Bearing in mind that the basic forms of enterprise ownership are sole proprietorships, partnerships and joint-stock companies, it logically follows that their capital structures will differ significantly, mainly due to the specific form of a company. Similarly, in its capital structure, a sole proprietorship has its equity consisting of the capital of the proprietor and retained (reinvested) earnings and possibly certain types of long-term loans (with a repayment period of only a few years). A partnership in its capital structure has the capital of the partners, retained (reinvested) earnings and different types of long-term loans (long-term borrowed capital). A joint stock company is the dominant form of enterprise organization today, so this paper will deal solely with the capital structure of a joint stock company, i.e. corporation. In this regard, it should be noted that the capital structure of a joint-stock company (corporate enterprise) consists of: *firstly*, share capital (capital from the issuance of ordinary and preference shares, capital reserves and retained earnings) and *secondly*, long-term borrowed capital (different types of long-term loans and capital from the issuance of various types of securities).

DECISIONS ON CAPITAL STRUCTURE

In contrast to microeconomic theory, which mainly deals with the ratio of the size of the effects and the scope of business activities of a company, taking capital employed as a fixed factor, the practice of management of company's finances (financial management) focuses on the dependence of the effects of the company's business activities on the amount of the capital engaged. In an effort to maximize the effects of business activities, financial management of the company tries to allocate the limited capital to alternative needs which promise the greatest contribution to the creation of new values of the company. Since in modern market economies, most large companies have a corporate form of organization, it is a key reason why in this paper the problems of factors of

capital structure are viewed primarily in terms of companies that have a corporate form of organization.

Although the capital structure is less susceptible to changes than the structure of the company's assets, it does not mean that the management and decision-making on capital structure should not be the subject of constant attention of the financial management of the company. Namely, the size and pace of growth of a company continue to create the need for additional financing whose fulfillment implies the use of new sources of financing, and which change the relations in the current financing structure. For example, owned accumulation is an opportunity for quality support to the realization of the company's current operational plans as well as its growth and development, but it is limited by the profitability of current operations and decisions on the allocation of net income (dividend policy of the company). Therefore, the remainder of the required capital must be obtained from external sources, which will necessarily result in an outflow of cash from the company in terms of liabilities to these sources, with the inherently present illiquidity risk for the company.

Meeting the needs for capital is a problem of structuring of the balance sheet liability, and resolution of the problem presupposes the selection of appropriate combinations of sources of corporate financing. In academic literature, relations in the financing structure of corporate enterprises are usually expressed, on the one hand, through the financial structure as an expression of the totality of engaged financing resources, and on the other hand, through the capital structure as the long-term aspect of the financial structure. However, company financing does not imply only a quantitative covering of needs for capital, but also a careful composition of an amount of capital of different backgrounds and maturity deadlines with the aim that the desired level of business operations of the company is balanced with the targeted cost-effectiveness, acceptable level of liquidity and risk, necessary financial stability, development prospects of the company, and financing opportunities. However, achieving such a complex goal which necessarily requires optimal use of economic resources of the company is not simple. If we leave aside the possibility that the capital required for the desired (most favorable) sources cannot be obtained at a given moment, then the design of the desired capital structure is the skill of the possible and involves two types of financial decisions, such as: (1) finding the best combination of owned and borrowed sources, i.e. the ownership structure of the source, which defines the profitability and current liquidity of the company, and (2) selecting individual sources of funding in terms of maturities which best meet the objectives of the company at a specific time.

In economic practice, combining different sources of financing is usually done according to the principles of financial policy of the company, the observance of which presents a condition that effects of the company are not below possible. Successful solving of problems of financial structure in terms of ownership and the maturity of the sources should result in the optimal capital structure of the company, which is characterized by the minimum weighted average cost of capital and the maximum market value of the company. Of course, in the process of finding a suitable, preferably optimal capital structure, one must not lose sight of the connection between the composition of sources of financing and the form of investment of capital. Similarly, the principles of financial policy of the company require specific forms of property to be covered by adequate financial resources. The importance of this connection in the management of company's finances enterprises (financial management) is clearly observed and emphasized through the formulation of the so-called horizontal rules of financing.

Given the scope and structure of needs for capital, methods of company financing can vary significantly, which implies their highly complex financial structure. In the balance sheet liabilities, the structure is expressed through the global ratio of owned and borrowed sources of financing. In addition, owned sources are permanent, while borrowed sources (debts) have fixed terms of maturity. Depending on their maturity, debts are conventionally divided into long-, medium- and short-term debts. Owned sources of financing with long-term and medium-term debts consist of the so-called capital structure, which is a crucial component of the financial structure of the company.

What will the ratio be of owned and borrowed sources in the financial structure, i.e. the capital structure of a specific company depends on many factors and some of the most important factors will be analyzed in the following text.

FACTORS OF CAPITAL STRUCTURE

Capital structure is the ratio of owned and borrowed long-term funds. Capital structure is a narrower term than financial structure, which represents the ratio of owned and total borrowed funds (long-term and short-term). Since the short-term borrowed funds due to their short term nature cannot be used to finance long-term investments, taking into consideration the fact that long-term investments are significant for the survival, growth and development of a company, our attention in the following part of the paper will be given to the factors affecting the capital structure, but only in terms of strategic financial decision making in a corporate enterprise. In addition, in relation to the financial structure, capital structure is conceived as a narrower category, which is limited to the ratio of permanent components of funds (equity) and long-term components of borrowed funds (long-term loans).

The capital structure of the joint stock company, i.e. corporation, can be understood as the ratio of equity and long-term borrowed capital (long-term debt) which maximizes the value of the shares, and well as the value of the corporation as a whole. The capital structure is conditioned by the form of enterprise ownership and can be seen from the balance sheet liabilities. However, apart from the form of enterprise ownership, capital structure depends on many other factors whose effects must be taken into account when composing the capital structure for a specific corporate enterprise. In this context, when defining of capital structure of a corporation, we should take into account a number of the most important factors that predominantly affect the composition of the capital structure, such as:

1. Respecting the rules of financing
2. Risk of business operations
3. Retaining control over the company
4. Preservation of the financing capacity
5. Stage of the life cycle of a company
6. Stage of the economic cycle

1. *Respecting the rules of financing* - in relation to the capital structure of the company, it is primarily related to the need to respect the so-called golden balance sheet rule, which requires that noncurrent assets are financed by long-term sources and current assets from short-term sources. The need for long-term sources to be used to finance noncurrent assets stems from the fact that the fixed assets typically require greater investments and that the investments can be achieved over a longer period of time through cash flows, depending on the size of investment and economic life of the duration of the asset. Therefore, there is no doubt that it would be unrealistic and very risky to promise creditors that their money would be returned in a shorter period of time than is required for the return through the cash flows generated from current business operations. Financing of fixed assets from short-term sources could lead to illiquidity and non-profitability of the company thus jeopardizing its survival. Consequently, it appears that the needs for working capital should also be financed from short-term sources because it would be very unreasonable to use long-term sources to finance working capital, bearing in mind the fact that they are expensive and need to be repaid for a longer period of time.

2. *Risk of business operations of a company*- have to be taken into account when composing the capital structure of the company, since the estimated level of risk influences the ability of the company to use a smaller or larger volume of debt in its structure. Generally, we can say that the risk relates to the higher or lower uncertainty connected to the expected outcomes of business operations of the company. The essence of the uncertainty stems from the inadequacy and unreliability of information on the basis of which business decisions are made. Many of these

decisions are made aimed at the achievement of future results of business operations, i.e. business and net profit. Similarly, the risk to which the company may be exposed can be either business or financial. *Business risk* is determined by the inherent presence of uncertainty with respect to the expected business profit, which is the result of a smaller or larger share of fixed costs in total costs. The frame of this risk consists of fixed costs of business operations that remain rigid, i.e. non-elastic to the short-term fluctuations in the volume of business operations of the company. *Financial risk* is determined by the uncertainty of future net profit and it exists when the company has borrowed funds in its structure. The frame of this risk consists of fixed costs of financing that cannot adapt to short-term fluctuations in business profit. In the above context, a company that engages both types of fixed costs (business and financial) is exposed to a double risk, both business and financial, and their combined effect is the so-called total risk.

Company's exposure to business risk assumes identification of appropriate methods for its measurement and quantitative expression. One of these methods is the so-called *leverage* which helps estimate the effects of the company's business operations in the presence of the mentioned constant factors (fixed costs). In this regard, we can talk about business, financial and combined (total) leverage. In addition, it is necessary to bear in mind that the risk is measured by the following indicators: (a) *factor of business leverage*, (b) *factor of financial leverage*, and (c) *factor of total leverage*.

(a) *Business risk* is measured by the factor of business leverage which expresses the change in marginal profit with respect to business profit, i.e. the percentage change in business profit with respect to the percentage change in sales volume. The factor of business leverage is calculated according to the following form:

$$\text{Factor of business leverage} = \% \text{ of change of business profit} / \% \text{ of change in sales volume}$$

Higher factor of business leverage means greater exposure of the company to business risk, because the business profit can change significantly due to small changes in the volume of sales. Similarly, companies in which this is the case should try to lower the financial risk, since they will have difficulty accessing financing from loans because potential creditors cannot be sure that their money would be paid back. For example, reduction in sales volume leads to significantly greater reduction in business profit, which is why it may happen that the company cannot pay either interest or the loan.

(b) *Financial risk* is measured by the factor of financial leverage, which is determined as the ratio of the percentage change in profit before tax and the percentage change in business profit, i.e. as the ratio of business profit and profit before tax. The factor of financial leverage is calculated according to the following form:

$$\text{Factor of financial leverage} = \% \text{ of the increase in net profit} / \% \text{ increase in business profit}$$

Companies that are fully financed from their own sources are not exposed to financial risk. However, as most companies more or less use borrowed funds, it appears that they are constantly exposed to a greater or lesser financial risk. High factor of financial leverage means that on the basis of small changes in business profit a significantly higher change in net profit can be achieved. Companies with a high ratio of borrowed sources have a high degree of financial risk, and therefore, they should aim to lower the business risk or to repay a part of the debt.

(c) *Both leverage factors (business and finance)* act together in the same direction, to the increase or decrease of the company's exposure to the total risk, i.e. to the certainty regarding the realization of the net income as a return on equity. The effect of the complex leverage can be expressed by means of factors of complex leverage, and it is equal to the product of the business leverage and financial leverage, i.e.:

Factor of complex leverage = factor of business leverage x factor of financial leverage

Complex effects of the business and financial leverage should be analyzed within the expected fluctuations in revenues from sales according to the lower limit of profitability. When composing a specific capital structure of a company, it is necessary to take into account the possibility of the fluctuations in the volume of business in relation to the break-even point of profitability. Similarly, the issue focuses on observing the ever present dilemma in terms of the following: how to harmonize the requests for maximization of profitability with the necessity of maintaining the liquidity and solvency. In this regard, it should be borne in mind that the risk of illiquidity and insolvency commands the need for caution when combining effects of the business and financial leverage. This means that if the lower limit of profitability is high, while the area of business profits is narrow, and the volume of profit from sales exhibits signs of instability for whatever reason, it is not recommended to potentiate the factor of financial leverage together with the high factor of business leverage.

3. *Retaining control over the company* - is also an important factor in capital structure in case when the majority of shareholders are those who seek to retain control of the company. Specifically, to them the company financing by long-term loans and the issuance of preferred shares seems very attractive, since creditors and preference shareholders cannot influence the business policy of the company. However, the fact remains that such financing can only be used up to a certain limit because excessive indebtedness can lead to illiquidity, insolvency and gradual liquidation of the company. Therefore, upon reaching the upper limit of indebtedness, the financial management of the company has to turn to financing with capital which is obtained by additional issuing of ordinary shares, which represents a more expensive option of financing which may lead to a change of control over the company.

4. *Preservation of the financing capacity (debt capacity)* - is a very important factor in capital structure, because it allows companies to finance their asset requirements cost-effectively. To make this possible, the company should not be over-indebted, because this may lead to limited possibility of capital acquisition or capital acquisition under very adverse conditions in the future. In this regard, over-indebted company can find itself in such a situation that it cannot obtain any sources of funds to borrow and that it must be financed by issuing additional ordinary shares, which is very costly.

With this in mind, the question is which capital structure, in terms of ownership, is acceptable to the company. In this regard, it can be said that according to the traditional rules of financing, the structure acceptable for the company is if the equity is 50% and borrowed capital is also 50% of the sum of liabilities. This practically means that the ratio of equity capital and borrowed capital is 1:1, and the ratio between assets and liabilities is 2:1. It is believed that compliance with this rule provides sufficient security for the creditors in terms of possibility to collect their outstanding liabilities, since it is unlikely that the borrower will lose more than 50% of the invested assets, whereby until the loss exceeds the level of over 50% of invested assets, i.e. until the loss exceeds the level of the equity, the borrower can repay the debts. However, one should bear in mind that in reality there are always deviations from the theoretical rules, and accordingly, this rule should not be interpreted too rigidly.

5. *Stage of the life cycle of a company* - is a very important factor that affects the capital structure of the company. In addition, generally speaking, one should bear in mind that we can differentiate among four basic stages in the life cycle of company, namely: (a) the introduction phase, (b) the growth phase, (c) the maturity phase, and (d) the decline phase. *In the introduction phase*, it is characteristic that the capital structure consists solely of the owner's capital, as there is very small possibility that a company which has just begun operating manages to obtain capital from other sources (issue of shares and other long-term securities and long-term loans). *In the growth phase*, the capital structure of the company, apart from the initial capital of the owner, can also contain capital acquired by issuing of shares, since the main feature of the company at this phase is the

existence of a low financial risk. *In the maturity phase*, the capital structure of the company is characterized, apart from the presence of share capital, by the existence of long-term debt (long-term loans and capital from the issuance of long-term bonds). Finally, *the decline phase* is characterized by a high share of long-term debt relative to the equity.

6. *Stage of the economic cycle* - is also an important factor that determines the capital structure of the company. Due to the importance of this factor, the company should strive to adjust its financial policy to changes in the economic cycle in order to achieve lower financing costs. Depending on the extent to which the company can adapt to changes in the economic cycle, it ensures its own survival and profitable business operations. For example, in the case of completing the stage of recession, the company would need to resort to debt policy because when it comes out of recession it can relatively easily repay borrowed funds through the issue of ordinary shares or retained earnings. In this way, the portion of debt in the capital structure is reduced, which also contributes to improving the creditworthiness of the company in the future. What the company should never do is to borrow at the time when interest rates in the capital markets are starting to grow.

CONCLUSION

The previous discussion has shown that the composition of an adequate capital structure of a company is a very complex problem. Traditional financial rule was that the ratio of equity and borrowed capital is 1:1. However, in the operating conditions of a modern corporate enterprise, the practice has simply disproved this rule and it was abandoned. Similarly, it is believed that a modern corporate enterprise should opt for such a ratio of debt and share capital which maximizes the value of ordinary shares, i.e. which maximizes the value of the entire enterprise. In addition, it is important to note the fact that changes in the value of the company present the same thing as the net effect on shareholders, and accordingly, the financial managers must always seek to find the capital structure which maximizes the value of the company. The obligation of financial managers in corporate enterprises is to establish as flexible capital structure as possible which will be able to adapt to alternative methods of company financing. In addition, it is necessary to maximize the share price of the company. Accordingly, long-term study of financial theory and business practice in the direction of finding a generally applicable model of establishing and maintaining the so-called optimal capital structure of the company did not give satisfactory results. Therefore, one of the conclusions is that relations in the optimal capital structure are, in fact, not possible to formulate in terms of a single general applicable standard, and accordingly, any corporate enterprise in specific conditions must search for its own solution of the optimal capital structure, at the same time observing all relevant factors.

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STANDARDIZED RISK MEASUREMENT METHODS IMPLEMENTATION: EXPERIENCE AND LESSONS FOR SERBIAN BANKING SYSTEM

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ABSTRACT

Among various techniques that are used to measure risk exposure and potential loss that bank could achieve, in last decades in banks worldwide Value-at-Risk (VaR) had dominant role. Due to simplicity of the model and possibility to adjust it to bank specific needs, it was used primarily for estimating exposures to market and credit risk and with certain modifications for operational risk. Moreover, Basel Committee on Banking Supervision imposes financial institutions to meet capital requirements based on VaR estimates. However, recent financial turmoil revealed shortfalls of the model and accuracy of the projections based on it. With implementation of Basel II in Serbian banking system in 2012, banks are recommended to use VaR for risk estimates. However, prevailing risks in the market, credit and operational incurred by moral hazard, raises several doubts and questions about appropriate techniques for risk evaluations which is the subject of this paper.

Keywords: risk, VaR, moral hazard, Basel II, risk management

INTRODUCTION

Alongside with growing number of financial innovations and derivatives, during last decades of XX century, banks exposures toward risks rapidly emerged. Risk management became the most important function in banks and inventing adequate techniques for measuring risks the greatest challenge.

Modern risk management is based on several estimates methods that take into account various factors that could affect risk profile of the institution. Unlike traditional methods that are mostly focused on net present value of future cash flows of interest with the assumption that future is certain, modern techniques accept the fact of uncertainty of market movements and correlation between various instruments. Widely used techniques for risk exposures estimates in financial institutions include extreme value theory, stress testing, Capital asset pricing method (CAPM), Value at risk (VaR). They were primarily developed to mitigate market risk, but could be applied in measuring and mitigating credit and operational risks as well. Still, over the years, VaR dominated as a standard risk measure. Strong support to it gave the Basel Committee on Banking Supervision as in 1996 it was imposed that financial institutions should meet capital requirements based on VaR estimates, emphasizing the importance of providing accurate estimates, as if the underlying risk is not properly estimated, a sub-optimal capital allocation will affect the profitability of financial institutions and their stability (Basel Committee on Banking Supervision, 1995).

In Serbian banks risk management is relatively new discipline. Strong impulse to its development gave Basel II implementation and presence of banks from developed countries. Still, in majority of banks implementation of risk techniques is weak and simple intuitive methods are used. In this paper we discuss the most used risk measurement tool – VaR and its effectiveness in domestic banking sector.

VaRAS A STANDARD RISK MEASURE

Main characteristics of VaR

VaR indicates the worst expected loss of a financial portfolio under normal market conditions over certain time horizon at a given confidence level. As it is stated in *J.P. Morgan, RiskMetrics–Technical Document* “VaR answers the question: how much can I lose with x% probability over a pre-set horizon”. In the simplest manner, VaR is a model of the distribution of future profits and losses of a bank’s trading portfolio.

The model is based on the distribution of future profits and losses over the pre-set time horizon for the given confidence level. The basic time period T and the confidence level α are the two major parameters that should be chosen according to the risk management goals or risk management appetite. Usually, in financial institutions holding period is one day or one month, but it could be adjusted to internal reporting periods. When used for market risk estimation, ideal holding period is time it takes to ensure liquidation of positions in the market. The choice of confidence level depends on purpose to which risk measures are being put. When the primary goal is to satisfy bank capital requirements, the confidence level is usually very small (e.g. 1% of worst outcomes), but in majority of internal risk management models confidence level of 95% is used.

The typical example of VaR supposes that a portfolio manager has a daily VaR equal to \$1 million at 1%. This means that there is only one chance in 100 that a daily loss bigger than \$1 million occurs under normal market conditions or that the bank’s trading portfolio should not lose more than \$1 million the next day.

In the simplest form analytical VaR model assumes that holding period returns are normally distributed so if n -day returns R normally distributed with mean μ and standard deviation σ :

$$R \sim N(\mu, \sigma^2)$$

VaR models could be divided into several groups. Although Monte Carlo simulation and stress testing are commonly used methods for VaR estimations, standard classification recognizes 3 broad categories:

- parametric VaR models – such as RiskMetrics
- non-parametric models – i.e. historical simulations
- semi-parametric models – e.g. Extreme Value Theory.

Parametric models are based on the assumption that distribution of returns is in line with some of the theoretical distributions, usually normal distribution, although other also could be applied. VaR calculation is determined using two main factors: standard deviation of the portfolio and average value of profit or loss of the portfolio. Advantage of parametric models is the fact that they allow complete characterization of distribution of returns and they offer greater opportunity for performance improvement. On the other hand, the major disadvantage is tendency for VaR underestimating. Almost all parametric VaR models are based on assumption of normal distribution of market data changes, which is in practice very rare situation. Starting with wrong assumption regarding normal distribution could lead to wrong estimates of VaR so VaR will be

underestimated at relatively high confidence level and overestimated at relatively low confidence level.

The most common used non-parametric model is historical simulation, which simplifies the calculation of VaR, because it does not make explicit assumption about distribution of portfolio returns. It uses empirical distributions of returns. Still, the biggest shortfall of the model is that future is predicted by recent past so it is not appropriate for risk estimations in the long-run. In order to overcome the wrong premises of parametric and non-parametric models, there were introduced semi-parametric models, such as Extreme Value Theory.

Assumption of normal distribution of losses is the most important factor that makes VaR to be inappropriate tool for measuring operational risk exposure. Operational risk losses are not normally distributed as the one of major characteristics of them is that high frequency risk events have low severity and vice versa, the highest losses usually occur from very rare events. These two dimensions of the risk – frequency and severity are key elements that influence its treatment and produce problems for bank management because it is difficult to translate them into risk projections. Due to that, loss distribution curve is specific, i.e. it has fat tails, indicating that frequency of high severe risk events is small. That is why these losses have ‘fat tails’ which could not be adequately captured with standard VaR calculations. Empirical researches showed that 5% of risk events that are within ‘fat tails’ (extreme events) produce more than 50% of operational Var. (Savić, 2012) This emphasizes the fact that distribution of risk losses and they frequencies should include both events in fat tails and low to medium frequency events. Inclusion only one of these events assuredly led to suboptimal results and risk estimates. Therefore, conditional VaR is used. It shows possible loss above standard VaR as it is average maximum loss above certain confidence level. It is derived as weighted average between VaR and losses exceeding VaR, when expected losses are exceeded. It is called ‘conditional’ because it indicates conditional expectations toward VaR. Natures of operational risk events are very wide and quite often they are originated from ‘soft’ factors, especially when dealing with risk events originated from procedure weaknesses and moral hazard problems. Recognizing these events and including them into calculations of risk exposures remains the greatest challenge for the industry.

VaR shortfalls and lessons learned from the crisis

In spite of wide usage, VaR have disadvantages that should be emphasized. Most of them were reviled after turmoil in financial markets in 2008. We stress the most important. First of all, VaR is an estimate, meaning that value of VaR will depend on the stochastic process, which is assumed to drive the random realization of market data. The structure of random process has to be identified and specific parameters must be calibrated. This requires historical data and number of other issues such as: the length of the historical sample, weighting of events whether they come from recent past or further in the past. A lot of efforts need to be made in order to have the best possible estimate of stochastic process driving market data over specific time period to which VaR estimates apply.

Different circumstances in practice require alternative methods for random processes encompassing, so that is the main reason why VaR estimates are not unique. Market value sensitiveness are not stable as market conditions change and as a consequence even modest instability of the value sensitivities can result in major distortions in VaR estimate. Second, trading positions under review in VaR calculations are fixed for the observed period. It creates difficulties when the evaluation period is long enough to make this assumption unrealistic (i.e. to estimate VaR over 10 days for the purpose of regulatory capital calculating under the Basel Accord.). Third, VaR does not give the “whole” picture if it is not used combined with some alternative tools, such as: extreme value theory or simulations guided by historical worst-case market moves. (Mirković, 2013). Finally, VaR is sophisticated technique that relies on mathematic assumptions without taking into account other important factors such as weaknesses in corporate management and overall macroeconomic situation.

Financial crash and collapses of big banks in 2008 raised numerous questions about VaR effectiveness, out of which the most important were whether it was possible to predict catastrophic losses and why they were not predicted before. However, financial crisis did not originate due to large dependency on risk measurement techniques and optimization models. Reasons for it were more complex, such as: over-indebtedness of both private and legal entities, outrageous greed for large profits, internal frauds and weaknesses in risk management procedures, which are all actually operational risk events that are rarely included into VaR calculations. Another problem originated from VaR concept, is related to impossibility of applying it as a tool for total encompassing leverage and liquidity risk (Taleb, 2007).

VaR APPLICATION IN SERBIAN BANKING MARKET

Serbian banking market, after decades of restructuring, is one of the most important sectors in national economy. In comparison to other markets in the region, it is more liquid and ensured with regulatory capital (with average capital adequacy ratio being almost 20%). However, share of NPLs in total loans, often above 20% and crashes of four banks owned by government and domestic entities in last two years indicate that banking sector is faced with serious problems that undermine its stability and confidence of other participants.

The most important risks that banks are exposed to are credit and operational risk. Due to the fact that in Serbia financial market is narrow and small, loans make more than 80% of total bank placements, and majority of investments in securities are investments in government bonds so market risk do not play significant role in banks risk profiles. In total regulatory capital, only 1.8% goes to market risk cushion, whereas for credit and operational risk goes 86.5% and 11.7% respectively (Narodna banka Srbije, 2013).

Understanding of risk exposures nature is of greatest importance for adequate risk management. High level of NPLs partially could be explained with overall illiquidity in real sector and problems that enterprises are faced with as effects of the crisis. Banks also contributed to loan portfolio quality decline: trying to help big and important clients by restructuring their loans only short-term liquidity problems were solved, whereas key problem i.e. revival of economic activity was not solved. On that way, vicious circle is made as clients were again faced with liquidity problems and banks were not able to recover their investments (Mirković & Knežević, 2013). Furthermore, high level of NPLs is the result of interconnection of credit and operational risk i.e. procedure and process weaknesses and frauds in the process of loan approvals which are, according to the definition events of the operational risk. In lot of cases these events are, originated from moral hazard problems as managers were exposing banks to higher risks than it could be absorbed by capital in order to achieve personal gains through bonuses for the realized profit of the institution.

The best example of this interconnection is recent collapse of four banks on the market. Namely, in last two years Agrobanka, RBV, Privredna banka Beograd and Univerzal banka were bankrupt due to the same reason: insufficient capital to absorb in the first line credit risks that banks were exposed to. Before Agrobanka crashed at the end of 2012 with the loss of Eur 300 million, they had market share of around 6% and employed more than 2.000 people. High level of non-performing loans placed to related parties, often approved based on forge documentation about mortgages and other collaterals have led to high level of NPLs and credit losses that couldn't be absorbed with the banks' capital. Moreover, in fraud activities and loan procedures disrespect senior management was involved, in order to attain personal bonuses through higher profit of the bank. These cases show how operational risk exposures overrun into credit risk, bearing catastrophic losses for the market. On the micro level, operational risk events originated from moral hazard problem are also potential source of big losses.

There were publicly reviled several cases of external frauds where clients misused funds or their loans were approved based on forged documentation without involvement of bank staff. (Knežević, 2013) These events are out of banks control but overall macroeconomic situation and high level of corruption positively contribute to them. We can also recall that financial crisis in 2008 was also originated by the similar problems which were indirectly admitted through Basel III as weaknesses in especially liquidity and credit risk management together with managers' greed for profit led to collapses in banking systems. That is why Basel III emphasized importance of strengthening credit and liquidity risk management processes. Although there are no specific demands regarding operational risk management, through changes in liquidity, funding and credit risk policy actually operational risk events are targeted.

According to National bank of Serbia decision, VaR is recommended as a standard measure of risk exposure in order to calculate regulatory capital which is in line with Basel II. However, its effectiveness is ambiguous. Besides already mentioned shortfalls of the model, there are other factors specific for the Serbian market that makes it insufficient risk measure. VaR is sophisticated technique that requires adequate resources in order to produce adequate risk estimates, in the first line well trained staff, reliable IT systems and data bases. Data bases usually comprise data for last five years. Affiliates of foreign banks implement group systems, whereas in majority of local banks poor systems are implemented and excel plays the greatest role. (Barjaktarović, 2013). Moreover, it is not suitable for the estimation of the exposure to the most important drivers of risks in the Serbian banking market i.e. high level of credit and operational risk originated from moral hazard problem. Applying even conditional VaR bears the risk of including in calculation only countable, easily detected operational risk events such as unintentional mistakes in daily work which are high frequency, low severity events. This would underestimate potential losses originated from operational risk. Operational risk events and potential losses arising from procedure weaknesses are hard to express in terms of money, even if they are detected. In case of credit losses we need more sophisticated techniques that could recognize potential risk factors.

In a nutshell, applying Var or conditional operational Var as a risk measurement in Serbia could not give adequate risk estimation. That is due to relatively poor data bases and because the most important risk drivers are not included in the data bases or they are not treated as they should: as a moral hazard problem.

CONCLUSION

In developing banking markets that are usually narrow and highly concentrated, with unsettled macroeconomic conditions accompanied with high level of corruption and inefficient legal system, risk measurement techniques are just additional tool that is used to estimate risk exposure of the bank. Relying only on them would not give complete risk measure because of poor data bases that do not comprise events far in the past as risk management is still new discipline and before Basel II implementation there was no obligation of banks to collect data bases. That is not sufficient to make appropriate estimates and to determine loss distribution curve. There is also a potential problem of inadequate recognizing real risk factors.

Most of the sophisticated techniques are more suitable for market risk that do not play significant role in risk profile of Serbian banking market. Although VaR application is suggested by the regulator, its shortfalls must not be neglected. Having in mind dominant risks that banks are faced with, especially credit and hidden operational risk together with macroeconomic indicators it is obvious that adequate risk management techniques must include methods that will allow integrate estimations of potential threats with stress scenarios that will contain both soft and hard factors.

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CHALLENGES IN DESIGNING A TAX SYSTEM FOR A MORE COMPETITIVE SERBIAN ECONOMY

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ABSTRACT:

In the floating exchange rate regime, and under the pressures of neoliberal development concept, fiscal policy is the main factor in creating macroeconomic stability and fine tuning of the overall economic environment. Modality of fiscal policy and fiscal system is subjected to constant theoretical and practical examination. Factors such as the globalization of the world economy, increased mobility of capital, constant growth of international trade are constantly affecting the tax system. The intensity of the reforms of the tax system in Serbia is dynamic, and the transformation of certain tax forms differently affects the state of competitiveness of Serbian economy. This paper discusses in detail the types of tax structure that directly affect growth, investment and employment. The connection between the level of indebtedness and competitiveness of the economy is important, creating a problem of constant demand for raise additional revenues without harming entrepreneurship, innovation, or savings, and it is discussed as a possible element of instability.

Key words: competition, tax system, fiscal policy, reform

INTRODUCTION

Economic goal of every country is achieving of higher life standard of population, that is achieving of transformation of economic growth into standard growth of population. According to Porter (Porter et al 2008) this goal can only be achieved by increasing economical productivity, which further is being expressed by values of final goods and services by unit of engaged human capital, physical capital and natural resources. Enhancement of competitiveness is a process which is inseparable from creation of suitable business environment for economic subjects. Market values are being created and set by companies and small business, while the state takes active part in securing economic values. Therefore, in practical terms, this means that the state gets to have great responsibility in creating positive ambient, therefore, the role that the state gets is the one to increase the competitiveness. The size of the economy and the volume of foreign exchange reserves, the volume of export, etc. are just set as indicators who shows the size of quality of business environment from which greater productivity stems, and therefore the greater life standard. The creation of an appropriate economic environment by the state is being connected to the macroeconomic factor of competitiveness. Besides of this factor, competitiveness of the state is being determinate with an microeconomic factor as well, and with an heritage factor, which will not be further discussed in this text. The macroeconomic competitiveness is being consisted out of two next components:

- macroeconomical policies
- social infrastructure and political institutions

Concerned with the segment of macroeconomical policies, the most important components are monetary policy, fiscal policy, the management of economical policies and level of debtness (Jefferson institute, 2003). At the moment, the centre of economical attention occupies fiscal policy and she has got found her self under the pressure of indepthed events of the global economic crisis, so in concern to that is being suggested that the way of how great is state efficiency in the matter of budget funds expenditure, and as well in what way the structure of taxes is being created, and how high the level of state fiscal revenue is, is more important, than how high the tax levels are (Johansson, et al. 2008). Sustainability of the public finances is an important determinant of the productivity level, and as such will be consider further in the text. Highly indebted can find a way to service her own obligations increasing the taxes, or with monetary exopansion wich will further result with decreased investement or with increased inflation, with deeper negative effects to productivity (Acemoglu at al., 2008). Since that Serbia is firmly embedded in the neoliberal concept of monetary restrictions, the first solution of liability servicing is more certain. Besides that, there is a number of states in transition, who realised that the fiscal policy is a powerful tool in attracting foreign investments. Positive effect of such policies on the scope and volume of capital inflows helped in positive growth of their economies and enhancement of competitiveness. And while unnecessarily long procedures and corruption is being cited as an obstacle for business expansion by the investors, fiscal policy matters in a great deal, as well. In that sense, further will be considered a taxes on profits of companies, as well as the taxes on personal income as a key elements of fiscal policy in the process of creation of an single competitive business environment.

PUBLIC DEBT AS A LIMITING FACTOR IN A CREATION OF AN FAVORABLE TAX ENVIRONMENT

Displayed the of Serbia's public debt at the beginning of the work was necessary for the insight into the narrow range of tax reform. Although the primary goal of economic policy is employment and competitiveness, when taking into account the risk that the debt level reaches insolvency and the inability to service current liabilities the problem of sustainability gains priority. Countries with a low credit rating is often included in the debt crisis on low leverage. The debt crisis in middle-income countries, such as Serbia, can clear out even if found at a moderate level of debt if the previous history of the country in respect of payment of debts and inflation is not good if it is as such reviewed by the creditors. Sustainability of public finances in times of global financial uncertainty will in future be a pan on the scales for the perception of country risk.

The problem of chronic budget deficits is present in many modern states as a result of several factors, primarily the excessive public spending, inefficient tax administration, high tax evasion. The overall deficit is reduced due to the expansion of the tax base in Germany, freezing wages in Italy, the pension reform in Spain and France, reducing the cost and increasing the rate of VAT and also in Spain and Italy, Hungary, Croatia (IMF, 2010).

Serbia's public debt in the past two years has risen rapidly, and without the fiscal stimulus will continue to grow rapidly due to significant deficits in the next few years (just long for restitution amounts to 5-6% of GDP). In addition, in times of crisis to the surface the hidden government liabilities often emerge (various state guarantees which are activated and a like.) And on that basis the debt can be increased. Finally, the crisis often leads to the part when the state takes over one part of the private debt, and the size of that kind of an debt in Serbia is pretty much considerable. The increase in public debt can lead to a debt crisis and the financial crisis in Serbia. The financing of future fiscal deficits are mainly done through external borrowing, which directly leads to an increase in the foreign debt.

The public debt to gross domestic product ratio is the primary indicator of a country's indebtedness with the proviso that raises the question of sustainability, according to the Maastricht criteria, 60% of GDP. Care still sets the fast pace of borrowing, and long-term problem of high current account deficit. By other authors (Aristovnik., 2007) a sufficient ratio of public debt sustainability is the

debt to GDP ratio not to be increased in time. Serbia does not fulfill not even this criterion.

Table 1: RS Public debt (% of GDP)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
RS public debt/ GDP(%)	105.2	72.9	66.9	55.3	52.2	37.7	30.9	29.9	34.8	44.5	48.2	60	61.2

Source: Ministry of Finance-The Public Debt Administration Condition and structure of public debt, December 2013

The trend of improvement in all measures of public debt sustainability, which lasted until 2008th was not resumed 2009. year as a consequence of the negative effects of the global economic crisis. After the 2009th and public debt begins to grow rapidly. Rapid increase in the share of repayment of public debt to GDP is noted. Although it seems that the public debt on the basis of selected indicators in the area of security, when it comes to projections of debt, it is important to note that a key impact on the debt position has the dinar exchange rate against the euro, because over 46.4% of general government debt of Serbia is to this currency, 27.1% in USD, and only 20.5% in local currency. The depreciation of the dinar against the euro by 10% increases the share of public debt to GDP ratio of around 3pp, which clearly indicates a high proportion of debt denominated in foreign currency in total debt outstanding and debt sensitivity to exchange rate fluctuations. The basic orientation of medium-term fiscal policy is that the fiscal adjustment needed to stabilize public debt growth, achieve primarily by increasing revenues primarily combating the gray economy, reducing the share of public spending in GDP and an increase in economic activity due to structural reforms and changes in the model of financing capital investment.

SIGNIFICANCE AND CONTRIBUTION OF TAX TO CORPORATE INCOME IN ORDER TO IMPROVE COMPETITIVENESS

Empirical studies shows that from all basic tax forms, corporate tax influence the economic growth as well as the accumulation and productivity of factors of production is most pronounced (Johansson., et. Al. 2008). FDI contribute to growth through increased production of consumer goods and production goods. Also, developing countries are able that through FDI inflows improve their export structure. Due to the transfer of knowledge (*know-how*), indirectly is being positively affected to the economic growth. In countries in transition, in the absence of domestic accumulation capital base is consisted out of SDI. Various econometric studies (Ballack and Leibrecht 2005, Gorter and Perikh 2004, etc.). Indicate a negative correlation between the amount of income tax and FDI inflows, but also that the impact of extension of tax incentives on FDI is limited.

The reform of the corporate income tax in Serbia started in 2001. in order to increase investment activities of the country, which should further enhance growth and development. The essence of these changes is to reduce the tax rate (10% by 2005) as well as a significant increase in tax relief. This trend of increased tax competition, however, took place simultaneously in other countries in the region, so in that way, sustained relative strengths in the field of tax competition were quickly reversed. In accordance with the concept of the Laffer curve, in countries that have lowered the tax rate, the reduction in tax revenue due to expansion of the tax base and lowering tax relief wasn't achieved. On this basis (increased company profit) in Serbia as well the importance of the balance of corporate income tax in total tax revenue in the period 2004-2008 from 0.6% to 1.4% of GDP was increased. As expected, 2009. Revenues fell to 1.1% of GDP. The balance sheet importance of this tax was among the lowest in Europe, and the inflow of FDI has been at or slightly above the level of investment observed in other countries. Generous incentives and low rates were not a problem as the global economic and financial crisis has exacerbated the public debt. This reason in conjunction with the fact that lowering the height of the effective tax rate on profits is not

effectuate significantly on the economic growth, especially since there were present other barriers for investment and business, a change of approach in the design of this tax was required. The fact that the inflow of FDI in Serbia mainly generated from the privatization of a transportation sectors, finance, trade, along with low rate of investments in the industry, and the low overall efficiency of investment should be added.

Reform of Corporate Income Tax Law of 2013, the tax rate is 15% on taxable income. Even after the increase in corporate income tax rates in Serbia, it will still be much lower than the average corporate tax rates in the EU (25%), as well as the rates that apply in most countries of Central and Eastern Europe (around 18 %). With the retained system of the investment tax credit, which reduces tax liability up to 1/3, the effective tax rate in Serbia will amount to about 10% and will remain among the lowest in Europe.

In order to start the local economy, increase exports and employment, Serbia should find alternative ways to attract foreign investment in order to maintain fiscal sustainability. It is necessary to regulate the factors that deter investors, such as macroeconomic instability, political risks, business conditions, institutional factors. The effect of fiscal stimulus is canceled for lack of an appropriate economic environment. Given that both along with rate of 15%, the tax burden on corporate income in Serbia will be significantly less than in most other European countries, the retention of these benefits are considered inadequate and expensive mechanism to attract foreign direct investment (loss of state revenue under these facilities is approximately 0.5% of GDP, ie. 15-20 billion. dinars per year), especially because of the empirical analysis for the other countries of Central and Eastern Europe show that at low tax rates, tax incentives do not contribute to additional inflows of foreign direct investment. Since such a large direct subsidies are distorting the market, it is possible to implement solutions of CEE countries who are applying indirect incentives such as giving free land, equipment etc. soil infrastructure (FREN., 2013).

POSSIBLE DIRECTIONS OF TAX REFORM TO THE PERSONAL INCOME

The Personal Income Tax taxed income the factors production, labor capital, which directly affect cost and profitability of production. We should bear in mind the overall fiscal burden on certain factors, not just income tax burden, because Incomes from labor are burdened by social contributions, while the profit is burdened with corporate profit tax. Taxes on personal income in Serbia applies a mixed model. The schedular components of taxation, income of physical persons in this regard are classified into eight categories, where each type of income is taxed separately. In addition, individuals - residents of Serbia, whose total annual income from the aforementioned sources exceed the statutory limit, are required that on outpacing amount of the total annual income wage so-called Annual income tax. The first flaw of schedular part of this tax is that unequal treatment of different types of income, the current income tax changes relative prices and affect allocation of resources - which is economically inefficient. Except as differentially burdened income from various sources, a number of deductions and exemptions depending on the type of income, further interfere with the functioning of the principle of horizontal equity in taxation. So you can get to a situation where two people of similar economic output powers are significantly different tax burdened, depending on the structure of their income. Vertikane degree of fairness, which was to be achieved by the Annual individual income tax is limited due to the relatively high non-taxable amount and the exclusion of certain types of income from the base.

Total fiscal burden on labor is moderately high, and therefore the overall fiscal burden on wages has some negative impact on the demand for labor. High fiscal burden is the result of high rates of social insurance contributions. To reduce the fiscal burden in this segment is currently impossible due to the aforementioned problems of Serbia with fiscal sustainability. The reforms are recommended after entering the safety zone. The reduction of labor costs can be achieved in another way, for example by increasing productivity.

Revenue yield aspect of personal income tax in Serbia is relatively low compared to the EU-27 (EU 8%, 5% Serbian), (Altiparmakov, 2010), which can be attributed to the high share of the informal economy and high unemployment. The reason for low revenue yield of personal income tax in Serbia is that the average effective and the highest tax rate in Serbia are low compared to other countries. The average effective personal income tax in Serbia is 10.8%, which is significantly lower than in the EU. The recommendations that follow from this analysis would have reflected any change in the model of taxation, because the empirical synthetic taxation succeeds in practice to achieve its basic ideas, such as progressive taxation of the wealthiest citizens. Empirical studies have pointed to the existence of relatively high costs of administering this tax. The flat tax and dual tax as a possible alternative models. Fiscal unsustainability of the current economic system in Serbia, and at the same time low revenue yield of personal income tax to greater economic competitiveness by reducing the work load. The recommendation is to increase the revenue yield by improving the performance of the tax administration.

CONCLUSION

Displayed status of Serbia's public debt at the beginning of the work has provided essential insights into the narrowed options tax reform. Generous fiscal incentives and low rates were not represent a problem until the global financial crisis has exacerbated the fiscal sustainability of the system. The reason, in conjunction with the fact that lowering the height of the effective income tax rates did not affect significantly on the economic growth, because of other barriers to investment and business, require a change of approach in the design of this tax. It is necessary to pre-arrange the factors that deter investors, such as macroeconomic instability, political risks, business conditions, institutional factors. Large direct subsidies along with low tax rates within income taxes are distorting the market, and their impact on the inflow of FDI is limited. It is possible to apply the solutions of the other CEE countries who are applying indirect incentives such as giving free land, equipment land infrastructure, etc.

Reform of the personal income tax, for the sake of reducing the tax burden of production factors, is recommended after entering the zone of fiscal security. To increase the revenue yield of the tax is necessary to improve the performance of the tax administration and reduce the gray economy. In order to meet the horizontal and vertical equity recommendations that follow from this analysis would have reflected any changes in tax models. The flat tax and the dual tax are a possible alternative models.

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TAX COMPETITION AS GLOBAL AND REGIONAL PHENOMENON

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ABSTRACT

Globalization and the great mobility of capital, followed by a partial influence of internal factors directly contributed to the transformation of the economic system in the world. Among others, significant changes included the fiscal system, in which, the fiscal authorities seek to tax, financial and other incentives build competitiveness. The lack of national borders and the establishment of world market contributed to the greater mobility of factors of production. International companies that do business across borders have become the holder of the world economy and development. Their mobility is significantly increased due to the elimination of barriers between states. Tax competition exists in situations where the state, in the creation of their tax policy seeks to reduce the tax burden (either by lowering the tax rate, approving new tax relief or abolition of some existing taxes), all with the aim to encourage productive entry of natural resources in their respective markets or to prevent their outflow. It implies strategy that the government of a country used to the appropriate privilege tax measures to attract foreign direct investment. Provide a favorable environment and better conditions than the competition, be advantageous in at least one factor, an advantage and fight for foreign direct investment, presents guidance on the existence of tax competition.

Key words: Tax competition, incentives, fiscal system

INTRODUCTION

Tax competition is a competition between states (jurisdictions) to attract capital (investors) tax instruments, special tax incentives. Given that occurs in various forms and causes numerous positive and negative effects, is increasingly attracting the attention of experts and the general public. Tax competition is primarily related to direct taxes (income tax, tax on personal income and property taxes). If for doing the same job, there are other environments that will do anything to set objective a step higher, and that will enable us to achieve more, we come to the consideration of the simplest phenomenon of tax competition. Allow a favorable environment, provide better conditions than the competition, will be better in at least one factor, an advantage and fight for foreign direct investment, the only guideline the existence of tax competition.

CONCEPTS OF TAX COMPETITION

Tax competition, as competition in the broad sense, can best be explained by the desires and needs of both individuals and companies to achieve the higher earnings on their income, both personal as well as the company's revenue. (Keen & Konrad, 2011) Under the greatest satisfaction of individuals and companies involves the pursuit of the smaller levies jurisdiction or state in which individuals and companies engaged in activities. Competitiveness incurred at the time when individuals and companies get choices. If we look at the conditions where competition does not exist, we come to market conditions where the supply or lack of bidders who are able to determine

market requirements, define rates, and other factors that favor them, and not to individuals or companies.

Both forms of competition, economic and tax, can through its own advantages found justification in the global economy. When it comes to the form of tax competition, the last decades have seen the efforts of relevant bodies of the European Union to achieve harmonization of the tax systems of the Member States, in order to provide a greater level of neutrality and fairness of the single internal market of the Union. However, the specifics of the national tax system, the level of economic development of each country, but also the political and budgetary reasons make it difficult to establish a harmonized tax system, and lead to tax competition between countries, especially in terms of the amount of the effective tax burden. Despite the possible adverse effects of harmful tax competition, tax competition at the same time promoting economic growth. The finance literature is almost universally accepted view that high tax rates hinder economic growth and development. Tax competition could be accepted as an option, ensuring the interoperability of different national tax systems, to the extent that it can be considered that it is not harmful. Move factors of capital and labor from countries with high tax burdens in countries with low tax burden allows countries (which reduced income tax rates, payroll tax, etc.) tax reform, which is said to provide faster and more efficient economic progress and growth. (Heady, Johansson, Arnold, Brys, & Vartia, 2009) Out the opinions in the literature that entrepreneurs who operate with high productivity in terms of tax competition, receive incentives to continue their activities in those countries that lower taxes "reward" entrepreneurship and hard work. Such freedom of choice in which to conduct business activity, ultimately, maximizes the overall economic wealth, and basically all that is more favorable tax environment. Also, tax competition promotes fiscal responsibility by limiting the increase of the state administration. The largest part of the budget expenditure is financed from tax revenues, and thus understandable that states that, on the one hand, lower taxes, on the other hand, control and reduce public spending in order to create a balance between revenues collected and expenditures to be financed. In this sense, this kind of competition contributes to the rationalization of public spending. In public financial literature reviews that can meet the goal of tax competition is that the tax burden is reduced to zero tax rate, but to ensure the efficient use of tax revenues. Its aim is actually to attract, through attractive tax regimes, more mobile factors of production such as capital and skilled and professional workforce. Companies are even willing to accept higher taxes if the state provides a better infrastructure and better provision of other public services.

THE EFFECTS OF TAX COMPETITION

Due to the process of globalization for many countries is difficult to maintain high taxes, because today the taxpayers to easily transfer their activities and operations in areas with lower taxes. This phenomenon is known as tax competition. The competition encourages states to make their tax systems more attractive to investors, which carries with it certain effects. (Marjanović, Radojević, & Dragaš, 2013) Analysis of the effects of tax competition between countries has shown that it leads to changes in the relative tax burden factors of labor and capital. However, the effects of tax competition will be different in different countries, and even contradictory, since they depend on the initial level and structure of taxation in these countries. The effects of intense tax competition also depend on whether the taxation policies of passive and reciprocal measures react to tax competition. The effects of tax competition can be positive and negative. Among the positive effects of tax competition include control of power, innovation, incentives and more. The negative effects are manifested through a so-called unfair tax competition, which leads to undesirable and perverse consequences. These effects are reflected in tax evasion, distortion of the financial and investment flows, undermining the integrity and fairness of the tax system and so on.

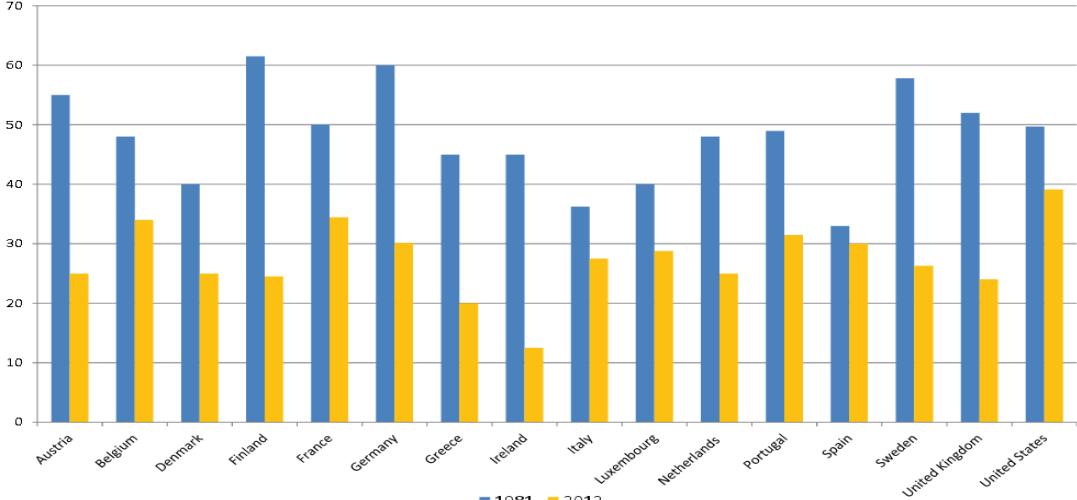
Tax competition does not favor countries that have higher tax rates, where such countries are usually advocates and opponents of tax harmonization "tax havens". It is not rare that both capital and labor, and the labor force seeking refuge precisely in these countries and regions that offer them better conditions in which to achieve the \neg greater benefit. Capital and labor to seek such an

environment that rewards the creation of a large profit in the private sector. In contrast to tax competition is tax harmonization, which is very important in explaining the phenomenon and the necessity of tax competition. The tax harmonization implies the equalization of tax rates between countries or within close region. It is necessary to distinguish between two types of tax harmonization, namely: explicit and implicit tax harmonization. Explicit tax harmonization means the same or similar tax rates in all countries, that does not favor any movement of capital or labor because they were on the side of the tax burden still where they conduct their business. On the other hand, the implicit tax rate harmonization implies equally taxing its citizens wherever they are and wherever economise. Thus, neither the form of tax harmonization does not support the movement of capital and labor, as the home country have information about fecundation capital and salary of their companies in third countries, thereby limiting their freedom, and avoiding taxation at higher rates, thereby again restricting the movement, i.e. mobility of capital and labor. The other extreme is to create a uniform system of tax collection within the European Union, where the collection of taxes in the whole of Europe was in charge of Brussels, as the seat of the European Commission and in that situation the country would lose its fiscal sovereignty.

The effects of intense tax competition, among other things, depend on whether the tax policies of the country or passive reciprocal measures react to tax competition. In the first phase of operation of tax competition, it is necessary that there is a country or region "pioneer" in the lower tax rates for example. income tax, while the second stage is to the point that other countries and/or regions to accompany tax reductions in a way that they themselves lower tax rates that have previously been effective. This is the simplest way to explain the functioning of tax competition.

In fact, as the taxpayers' interests, which is reflected in the reduction of the tax burden, the basic measure that tax policy of a country is introduced with the aim of attracting foreign investment is lowering the tax rate on corporate profit. This is one of the main effects of tax competition between countries, and how taxation is based on the principle of equality, it is expected that the reduced tax rate enabled an investor to be offered to other investors, resulting in lowering of tax rates in the tax system on corporate profit. (Marjanović, Radojević, & Dragaš, 2013)

Figure 1: The evolution of tax rates on corporate income in EU-15 and the U.S.



Source: (OECD, 2013)

The evolution of tax rates on corporate income in the comparative in 1981. year and 2012th year, for example the EU-15 and the United States is shown in Figure 1. There were distinct differences; the most obvious example is Ireland, which has experienced the greatest reduction in tax rates on corporate income. Consequently caused a kind of "boom" among other European countries are following the example of Ireland, reduce their tax rate on company profits. Once the highest level of tax in France today is at a level that is slightly above the average for the EU-15 and the U.S., but

it is far from the biggest tax rates that were once present. In addition, we can see that the United States suffered at least a reduction in tax rates in the same time period.

HARMFUL TAX COMPETITION

Fiscal policy is an element of the sovereignty of each state and is based on the collection of taxes by which financed public spending and redistribute income. It's clear that the loss of fiscal sovereignty is a cornerstone in the implementation of fiscal harmonization pursued by the EU institutions. In addition to tax competition, the creation of a common market with free movement of capital, goods and services came to the fore and unfair tax competition. (Stojanović, 2009) For companies it is extremely important to locate a market that will offer the most favorable tax conditions. Harmonization of indirect taxes is made in the European Union, while the Member States given the option of direct taxation. This is exactly what has led to unfair taxation in the area of corporate tax, given that there are no laws governing the issue of competition. All this leads to unfair tax competition between companies in different countries.

With the increasing globalization of economic activities and the "crossing" borders by capital, labor and services, the state began to each other "competing" to be on their territory to attract more business entities, and hence investment. (Stojanović, 2009) Every country is trying to offer better conditions for conducting economic activities, with the greatest attention is paid to the tax conditions and tax treatment of the company. This is reflected in the expansion of the base of the corporation tax, while reducing tax rates that are approaching zero or even disappears completely. This behavior leads to a state erosion of the tax base, as well as the highly "unfair" tax environment in comparison with the terms of entities in the neighboring countries. That is why it was necessary to take appropriate measures to prevent adverse effects caused by the existence of unfair tax competition.

Because of the many problems it causes, especially since the establishment of the single market of the European Union, the last decade of the twentieth century was marked by a lot of effort to resolve, i.e. eliminating and reducing the harmful consequence of unfair tax competition. (Stojanović, 2009) Given the existence of a common market in the European Union and a number of multinational companies, and individuals, who carry out their business in at least two EU countries, the problem of harmful tax competition is particularly acute.

Initially, the problem of harmful tax competition observed in terms of low tax rates, broad tax base and tax havens, and required the most appropriate measures to mitigate the effects of harmful tax practices. Today, most of the attention paid to the issue of exchange of information (providing certain information and cooperation with the tax authorities in different countries, the improvement of multiple assistance in connection with the renewal of the tax requirements), then the rules on the prevention of abuse of rights (tax jurisdictions use their authority to allow certain tax exemptions taxpayers or to allow them to avoid their tax obligations) as a common consolidated corporate tax base (objective of the European Union common market to become the most competitive economic market in the world, which would consequently lead to attracting large numbers of foreign investments). Consolidation common corporate tax base is the only way to eliminate the tax restrictions have companies that operate in several Member States.

CONCLUSION

Tax competition is a phenomenon related to the approval of various tax benefits, primarily in the tax system to income tax in order to attract foreign investors on their territory. Specifically, tax competition is a process used by countries to attract foreign investors under its tax jurisdiction by offering them lower tax burden. As is generally known that taxpayers seeking to lower their tax liability to the lowest possible level, they have an interest to take advantage of tax breaks that are in

the process of tax competition between states provide. On the other hand, the public functions are all extensive and require more and more resources for financing, and the interest of the state to raise as much money through taxation. Therefore, they introduce higher tax rates, reduce benefits, expanding the tax base and so on. There is a conflict of interest of the state, on the one hand to attract more investments (lower tax burden), on the other hand to collect as many resources to finance the public functions (higher tax burden).

In the process of tax competition comes to punishing tax authorities that are wasteful act, such as legal and natural persons migrate to countries with lower tax burdens. States with lower tax burdens attract foreign investors and thus are rewarded. From the above it draws a conclusion about the necessity of formulating and pursuing an optimal tax policy from the standpoint of economic growth. To explore the link that exists between the inflow of investments and design of the tax system, specifically the system of tax on corporate profit, raises the question of efficient use of tax incentives to attract investors.

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BASIC ASSUMPTIONS AND ANTECEDENTS OF VENDOR MANAGED INVENTORY MODEL

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ABSTRACT

On the principles of new - old relationship marketing paradigm, various forms of business cooperation have been established on B2B markets. The process of globalization, technological progress and the implementation of modern information systems are just some of the factors that influenced the development of long term relationships between trade actors. Based on them, business cooperation occurs in all segments of the reproductive process, from procurement of raw materials, through production phase, to the sale of final products to customers. Consequently, retailers, faced with even more discerning and demanding consumers, decided to enter into certain types of partnerships and cooperation with their suppliers. Main goals of those vertical integrations were the increase of operational efficiency and coordination of various business processes on industrial markets. With the implementation of "Vendor Managed Inventory" model, retail companies, in collaboration with their suppliers (manufacturers), try to organize all procurement activities in the most efficient and effective way. Regard to this, they share obligations, responsibilities and information with their partners, relying on their mutual business trust. In this paper, besides its basic features, main assumptions and advantages of "Vendor Managed Inventory" model will be presented.

Keywords: partnership, procurement, VMI, information technology, retailer, vendor;

INTRODUCTION

Market changes, followed by technological and information development, have led to the creation of a new networked economy. Aspiring to the most efficient and effective way to meet the needs of their customers, companies establish various forms of cooperation. According to Lovreta et al. (2010), those relationships can be based on social (interconnected administration, industrial districts), bureaucratic (trade associations, consortiums, franchises, agency networks) and equity principles (joint ventures). From management aspect, the same authors (2010) systematize business networks in the following two groups:

- strategic and corporate networks,
- operating marketing and sale networks.

The first form of networking is manifested at the corporate level, and represents part of the company's strategy, elevating it above the daily market relations. On the other hand, operational networks in marketing channels are focused on effective realization of business sales, distribution and other marketing activities. In retail sector, these connections can be established for procurement operations, where retail companies in cooperation with their suppliers, organize all activities related to inventory control and product delivery. This form of partnership, known as "Vendor Managed Inventory - VMI", was first applied by Wal-Mart and Procter & Gamble, in the early 80s of the twentieth century. Later, in order to optimize their supply chains, other companies, such as Campbell Soup, Johnson & Johnson and Barilla, GlaxoSmithKline, Electrolux Italia, Nestle and Tesco, also implemented this business model (Niranjan et al. 2012). Therefore, "VMI" concept has become one of the most analyzed forms of cooperation between trade actors on B2B market.

VENDOR MANAGED INVENTORY OPERATIONS

"VMI" model was primarily created as a response of the supply chain members to the consequences of a "bullwhip" effect. Inadequate data exchange between trading players has caused the increase of inventory holding costs in all stages of the production flow. Misinterpretations of demand growth led to the accumulation of inventories in retailer distribution centers, and also, in even greater volume, in the warehouses of their suppliers (manufacturers or distributors). In order to minimize the resulting negative effects, leading companies in FMCG sector, started with the implementation of "VMI" concept. Piplani (2006) defined this form of partnership as the arrangement where the vendor continuously and automatically replenishes the customer's inventory, based on product usage and stock level information supplied by the customer.

In contrast to the traditional concept of supply, where the retailer makes all decisions regarding procurement operations (when and what product quantity to purchase), with the implementation of "Vendor Managed Inventory" model, part of obligations and responsibilities are transferred to their suppliers. This means that they take all activities of inventory monitoring (physically or electronically), ordering and product delivery from their buyers (Waller et al. 1999). The whole process is presented in the next figure.

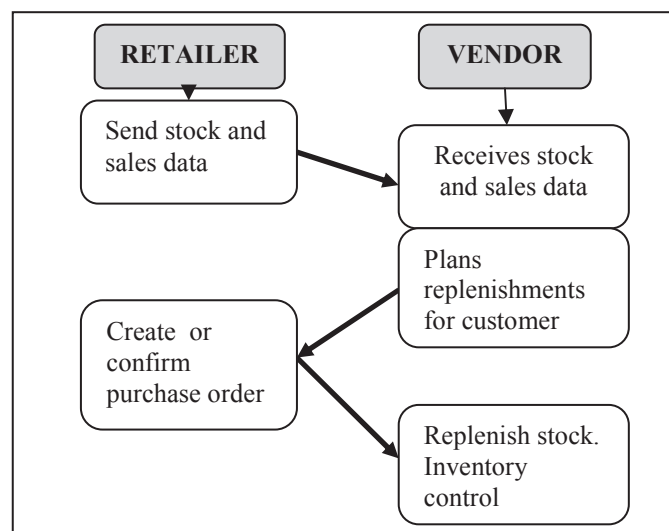


Figure 1: VMI activities (Sap Help Portal, 2013)

Replenishment process within the VMI concept begins with the sending of historical sales and inventory level data. Besides this information, retailer demand forecasts for certain product categories would also be of a great importance for the suppliers. The exchange of data between trading participants can be done by using modern information systems such as EDI, or in the traditional manner, by fax. After the reception, vendors prepare and develop plans and schedules of the supply process. Rest upon the obtained data and the retailers forecasts, they predict future demand for certain products. In this way, vendors create the basis for the decisions regarding the size and the time of delivery orders. Suppliers compose a proposal orders and forward it to their customers (retailers). After reconciliation of basic items (quantity, packaging, frequency and delivery time), the replenishment process can be realized.

THE BASIC ASSUMPTIONS OF VMI MODEL IMPLEMENTATION

Successful implementation of the "Vendor managed inventory" model largely depends on the fulfillment of various assumptions. Many authors (Dong et al. 2007; Claassen et al. 2008; Niranjana et al. 2012) have dedicated attention to their identification and analysis.

Among all factors that affect the implementation process of VMI system, the most important are the technological requirements that should be applied by trade partners (manufacturers and retailers). According to Waller et al. (1999), computer platforms, communication technology and systems for identifying and tracking products single out as the most significant ones. Software support, installed by supply chain members, contributes to more efficient inventory management, transportation routes analyses and determining the optimal locations for a variety of business facilities. The use of Bar-code technology and other information systems, implemented by most retailers, can also simplify and facilitate the process of product identifying in retail stores, warehouses and distribution centers.

Contrary to these assumptions, the use of EDI (Electronic Data Interchange) and DSS (Decision Support Systems) systems is desirable but not essential for the successful implementation of the "Vendor Managed Inventory" model. This is corroborated by the case of Frito-Lay Company, which implemented VMI techniques, while before the acceptance of EDI technology (Waller et al. 1999). In the case of a small number of stock keeping units (SKU), in order to avoid the high costs of implementing EDI and DSS systems, supply operations can be realized on the principles of conventional stock-level approach (by comparing planned and actual inventory levels in the retailer distribution center).

Besides the technology assumptions, the implementation of VMI model is influenced by many other factors. Niranjana et al. (2012) classified them into:

- product-,
- company- and
- supplier-related features.

Successful implementation of "Vendor managed inventory" model depends on many product characteristics, such as sale volume, frequency and market share. According to Raghunathan and Yeh (2001), this system is the most applicable for products with stable and high demand, and relatively new products with large variations in sales. However, the results of some researchers (Towill, 2003) have shown that a successful implementation of this model is possible for both, the products with large and low sale volume. In this group of factors, Niranjana et al. (2012) have included the product monitoring and identification systems.

Company characteristics are of great importance, especially if procurement activities represent the main source of retailer competitive advantage. In this case, companies are reluctant to implement "Vendor managed inventory" model, trying to avoid possible business fluctuations and changes. Consequently, they often choose to keep their existing classical procurement procedures, with no intention for initiating VMI pilot projects.

The necessity of data exchange and quality of established relationships between business partners are the main supplier-related features of "Vendor managed inventory" model. On the principles of new marketing relation paradigm, trade actors have developed forms of long-term cooperation, not only by implementing "Vendor managed inventory", but also the other partnership techniques. Within those business networks, high level of trust minimizes any potential conflicts and impels information exchange between retailers and their suppliers. They synchronize procurement, marketing and sale operations in order to satisfy customer needs. Because of this, most these activities, especially information sharing, are highly standardized. The use of EDI, DSS and RFID technologies emphasizes their cooperation, reduces costs and accelerates information flow.

ANTECEDENTS OF VENDOR MANAGED INVENTORY MODEL

Since the successful implementation of "Vendor Managed Inventory" model is conditioned by fulfilling several requirements, retail supply chain members expect certain benefits following its implementation. The allocation of value, created within "VMI" concept, primarily depends on the

existing power distribution in marketing channels. However, the implementations of "VMI" system will only happen if both trade partners, the supplier and the buyer (retailer), achieve certain benefits, and cover their costs. The following table presents its main advantages.

Table 1: Antecedents of "VMIO" model (Piplani, 2006)

	CUSTOMER	SUPPLIER
BENEFITS	Lower inventory	Improved service to customer
	Lower obsolescence costs	Ties customer to the supplier; Improves customer loyalty; resulting in higher barrier to entry for competitors
	Development of partnership	More efficient planning of production
	More control on supply (higher availability, predictable results)	Better control of demand (better predictability, lower variation)
	Simplified administration (focus on core competencies)	Development of partnership

Close co-operation in the processes of inventory management and customer service, creates opportunity for retailers and their suppliers to achieve positive financial results and improve their business. According to Waller et al. (1999), two basic advantages of "VMI" model which occur in these business areas, are:

- cost reduction,
- service improvement.

Supply chain members usually accept the implementation of VMI model in order to reduce the risk of market uncertainty. Unpredictable demand puts suppliers (manufacturers) in the situation to frequently change their production capacities, adapting them to customer needs. Sudden large orders force them to increase their stock levels of finished products that additionally will reflect on their costs. With "Vendor Managed Inventory" model, suppliers can mitigate large fluctuations of business processes, and reduce inventory levels at various manufacturing stages.

As suppliers, retailers are also faced with the problems of unpredictable demand. In order to meet the needs of their customers more effectively, they lead themselves into paradoxical situation. By increasing the level of their inventories, retail companies improve the quality of their services. But, at the same time, they could confront with high costs. However, with the implementation of "Vendor Managed Inventory" system, replenishment process becomes significantly more frequent (changing from monthly to weekly or even to daily basis), which enables trade partners to reduce inventory costs and quickly respond to market changes. Furthermore, many logistics activities become more efficient with better coordination in the retail supply chain. "VMI" model increases the share of low-cost deliveries with full capacity, eliminates costly LTL deliveries and manages efficient routes planning. All these enable cost reduction of transportation and warehouse operations. According to Cetinkaya and Lee (2000), within "Vendor Managed Inventory" system, various inventory and transportation models are developed in order to optimize the existing benefits.

Besides inventory cost reduction, supply chain members, through the implementation of "VMI" model, are trying to improve their services. For retailers, the quality of service is primarily connected with product availability. According to Roland Berger Consultants (2003), stock-out in retail stores, costs retailers and manufacturers more than 4 billion Euros annually. This situation does not only lead to loss of sales, but also it can influence the loss of a loyal customer, which can have long-term consequences on both trading partners. With "VMI" system, coordinated marketing and

replenishment activities enable suppliers to balance the needs of all their partners, without neglecting the requirements of individual customer. In this case, less significant orders can be postponed for a day or two, or even reduced, so the critical one could be realized, by delivering right products on right time. Retailers could also return the part of the received products to their suppliers, who can forward it to those customers that are in a hurry. In this way, adequate product availability is provided and obsolescence effects are minimized. With the implementation of “VMI” model, products are much faster delivered to retail shelves, while, in cooperation with suppliers, promotional and merchandising activities are efficiently organized.

However, despite the successful implementation of “VMI” concept by large multinational companies (including Wal-Mart, Procter & Gamble, Campbell Soup Company, Barilla SpA, Intel and Shell Chemical), this model has many disadvantages too. According to Bookbinder et al. (2010), problems are manifested through higher administrative costs, difficulties in planning activities and inefficient order processing. For retailers, the aggravated circumstance could be the loss of control, while manufacturers could face the higher holding inventory costs (Piplani, 2006). Therefore, the implementation of “VMI” model should be the subject of detailed analysis of company's management, who must compare the advantages and disadvantages of its use.

CONCLUSION

In turbulent business environment, companies are trying achieve the competitive advantage in B2B market, through various forms of cooperation. Retailers collaborate with their suppliers (manufacturers) in order to increase the efficiency and effectiveness of their own business operations. Besides strategic, their relationship can be realized at operational level too, by developing different networks of marketing and sales. Partnerships between trading subjects can be established in the area of procurement. Retail companies can leave their suppliers the part of responsibility, regarded to inventory control and product delivery operations. Following the demand forecasts information, they create suggestions concerning the size and the time of delivery orders, which, after buyers (retailers) approval, are processed. This form of cooperation, known as “Vendor Managed Inventory” was first implemented in the early 80s of the 20th century.

Besides technological assumption (such as adequate computer platforms, communication technology and systems for product identification and monitoring), successful implementation of this model depends on many other necessary requirements. All of them can be classified into three main groups: product- , company- and supplier - related features. “VMI” model is commonly used for standardized products, with high frequency of sales and stable ordering pattern. In order to integrate all the participants in the supply chain, its implementation largely depends on business relations forged between trading partners. Long-term marketing relationships between retailers and suppliers, based on trust and constant information exchange, provide the basis for effective realization of procurement activities within the “VMI” system.

Large companies, including Wal-Mart, Procter & Gamble, Campbell Soup Company, Barilla SpA and others, applied this form of business cooperation in order to reduce costs and improve the quality of their services. The implementation of “VMI” model allows business partners to operate with smaller and more frequent orders, reduce their inventory levels and respond more quickly to market demands. In addition to more efficient inventory management, the benefits of “Vendor Managed Inventory” system are also reflected in lower transportation and warehouse costs, and higher product availability in retail stores. However, having in mind that “VMI” concept can produce negative effects on retailers and manufacturers operation processes, company management must be very careful during its implementation.

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EMPLOYEE OWNERSHIP AS A FORM OF SOCIALIZATION OF BUSINESS: EXPERIENCE OF THE WEST AND RUSSIA

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ABSTRACT

In the paper the problems of formation of employee ownership in the USA, Western Europe and Russia are considered. Achievements and weaknesses of this social and economic phenomenon are analyzed. The structure of effects which can be received in the long term by society at activation of this form of socialization of business is reasonable.

Key words: Socialization of business, Employee ownership, Privatization, Public enterprises

INTRODUCTION

Socialization of the business is one of the basic directions of its development, reflected in the theoretical studies and practice in developed countries. Historical experience shows that this process is quite ambiguous from the ideological, political and economic points of view. Vital importance of the ownership in the development of all socio-economic processes drew a great attention from scientists of different fields and schools of economic thought from critical (K. Marx, F. Engels, E. Dühring, P. Proudhon, P. Kropotkin) to representatives of convergence theories and post-industrial society (J. Galbraith, J. Tinbergen).

Very different and opposite positions, developed in theories of ownership and socio-economic structure of society, are accompanied by the emergence of various processes of diversification of ownership, as a form of socialization of business. Despite very long development process, there is still a lack of its theoretical comprehension.

EMPLOYEE OWNERSHIP – EXPERIENCE OF THE USA

In development of methodological bases and creating the concept of socialization of business in modern society, the essential role has the foreign experience which achievements (with necessary adaptation) can be used in modern Russian economic and administrative practice.

The most advanced country in this field of interaction of public administration and management are the USA. Practice of formation of employee ownership of joint stock companies appeared here in the fifties of the XX century according to “Employee Stock Ownership Plan” – ESOP, and was activated in the mid-seventies, after acceptance by the Congress of the USA in 1974 of Employee Retirement Income Security Act – ERISA, provided essential tax privileges to the companies realizing ESOP.

The analysis of practice showed the usage of two options of realization of the ESOP model. J. Louget al. (1997) focusing attention on their basic characteristics specifies that in the first case the company creates employee stock fund and transfers it part of the profit used for repayment of stocks at former owners and for transfer the ownership right on it to the employee of the company. In the second case the employee stock fund obtains a bank loan (on the security of assets of its establishing company) and at once redeems some part of stocks. In the subsequent the company makes contributions to this fund, sufficient for repayment of a principal amount of debt and interest payment on it. Stocks transfer on accounts of participants annually after debt repayment. According to the author (J. Louget al., 1997) a key element of employee ownership organization is the trust fund created within the company, but isolated from its finance and completely removed from the sphere of powers of its management. The fund is operated by the entrusted trustee acting on behalf of shareholders workers. The fund uses the money received from the company, or from bank (in this case they are provided on the security of the company, it provides return of the loan capital and payment of interest) for purchase of stocks and their distribution to the accounts of employee.

Estimating economical institutional capacity of this trust fund, Bell and Risin (2002) reasonably pay attention to the next moments:

1. The trust fund is focused on realization of collective interest of the employee of the enterprise. Completely to exclude a situation when the trustee seeks to use fund in interests of a certain group of persons, or own, rather difficult. The limiter of such behaviour is legal responsibility which is born by authorized representatives - trustees of fund for the stocks inadequate to financial interests of all participants of ESOP.
2. The trust fund has some sources of financing: company profit; borrowed funds; income gained from operations with securities of other issuers (the state, non-financial corporations, financial institutions).
3. The trust fund is open for the government control of target use of the profit removed from under the taxation.

The emphasis placed by researchers on an obligatory, the essential component of the ESOP model – the privileges provided by the state is important. At the first option the profit transfer from under taxation to joint-stock fund by the company. At the second – its year contributions to this fund, going on an extinguishment of the main amount of debt (the size of these contributions exempted from tax payments is limited on 25% of total amount of the paid wages) and loan interest payment. Besides, paid dividends on the ESOP stocks are usually subtracted from taxable profit if they transfer for repayment of the loan issued to fund, and distributed on accounts of participants. In the characteristic of employee ownership of joint stock companies it is necessary to pay attention to noticeable trends of its development. One of them reflects raising level of a variety of types of the commercial organizations and branches in which the ESOP model is realized.

The data provided by one of authoritative Russian researchers of modern American economy and practice of formation and development of ownership occupied Supian V. B. (2001), testify that if at the beginning of the 80th of the XX century the employee ownership was spread generally among small closed companies (on USA terminology, private corporations), by the beginning of the 90th of the XX century it began to extend quickly, including on large open (public) corporations. Among them: "Polaroid", "Phillips Petroleum", "Chevron", "Proctor and Gamble", "McDonnell Douglas". The same author notes that characteristic feature of the end of the 80th and the beginnings of the 90th of the XX century became spread to employee ownership in the large companies military industrial a complex. Among them such industrial giants, as "Grumman" (share of employee ownership of 31,5%), "McDonnell Douglas" (24,4%), "Northrop" (22%), "Rockwell of International" (25,8%), "Lockheed" (20%), "Textron" (21,3%). If in the 80th of the ESOP company prevailed in metallurgy and metal working, in the subsequent they began to spread more evenly on all branches of economy of the USA.

Systematizing advantages of such form of ownership, researchers reasonably mark out its abilities. In first, it is to balance interests of different categories of the employee of the enterprise (the

production employee, managers). Secondly, it is to stimulate interest of workers to the end results of managing in long-term prospect. Thirdly, it is to provide realization of the principles of social and economic justice (on the one hand, there is no discrimination in investment with stocks of workers, with another, the size of their share in the capital depends on a contribution to results of economic activity) (Blazy and Cruz, 1995).

It is natural that the enterprises with employee ownership appear the effective organizations. Research of hi-tech firms of the USA, conducted by the National centre for joint-stock ownership, showed that firms, in which employees are co-owners, develop much quicker, than the firms which aren't providing introduction of appropriate programs. By available estimates, they give 50% more profit, than comparable with them the usual enterprises. The average annual gain of labour productivity at them is twice higher (Bell and Risin, 2002).

DISTRIBUTION OF PRACTICE OF THE EMPLOYEE OWNERSHIP EXPANSION IN WESTERN EUROPE

It is noticed that processes of formation and development of employee ownership aren't limited by the USA. They extends on the European countries, including, Germany, Great Britain, France. So, for example, in Germany at the beginning of the 60th of the XX century the Law "About Assistance to Ownership Creation at Workers and Employees" was adopted (Management and Market: German model, 1995).

In France and Great Britain formation of employee ownership– one of the important results of programs of privatization realized in the eighties of the XX century. In France such program provided:

- sale to the employee of the enterprise of the share capital on favourable terms (the stock value for them decreased to 20% on condition of preservation by their owner within three years, the delay of payment of an action lasted till three years);
- creation of "a firm kernel" shareholders (holders of 15-30% of stocks) privatized enterprises for ensuring stability of control over their management.

In the characteristic of the program of the privatization realized in Great Britain, the next moments are significant:

- along with granting to the employee of the enterprises of preferential terms of purchase of stocks their gratuitous transfer practiced;
- repayment of the enterprises by managers and workers was widely adopted.

Thus, it is possible to note that the idea of investment of workers put in the ESOP program shares of the company – the employer is to some extent applied in various countries, i.e. has the through sphere of realization. It is natural that for assistance to creation of the companies based on connection of work and ownership; under the auspices of EU the European federation of workers owners uniting national associations and the unions more than 50 countries is created.

As can be seen, in the European countries the government participation in formation of ownership of the workers is very noticeable, and it has different forms of realization tools:

- preferential sale of shares to employees of the privatized enterprises (decrease in a redemption stock value, payment by instalments of their payment);
- gratuitous transfer to workers of part of stocks;
- input of the norm forbidding in the medium-term period resale by workers of stocks to outsiders.

ATTEMPTS OF CREATION OF EMPLOYEE OWNERSHIP IN RUSSIA DURING THE POST-SOVIET PERIOD

It should be noted that the first attempt of creation of employee ownership during the Post-Soviet period was made within implementation of the Program of privatization of the state and municipal ownership by which was provided distribution of the large equity stake between members of labour staff of the incorporated.

Evaluating results of the carried-out privatization, researchers reasonably noted that instead of collective and share ownership of labour collective the individual ownership of the worker on securities of the enterprise was formed. Providing full freedom to it on hand stocks initiated process of their mass dumping. At the heart of this process - an unstable financial position of the majority of the incorporated enterprises, therefore, dividends zero or close to them, aspiration of ordinary shareholders a little to correct the family budget. The significant role was played also by a psychological factor: people can appreciate less that they receive free of charge or at the symbolical price. As real costs of acquisition of ownership were not so far, as the motivation to its preservation was significantly weakened. Eventually, reduction of a share of workers in the share capital was one of tendencies in post-privatization distribution of ownership. The following attempt of creation in Russia of the enterprises with employee ownership was realized in the late nineties of the XX century and connected with adoption of the Federal Law "About features of a legal status of joint-stock companies of employees (national enterprises)", come into force since October 1, 1998. On the organizational legal status national enterprises represent closed joint stock companies, but have a number of the essential features, allowing carry them to special type of joint-stock companies. Main of them consists that insiders (employees) have to possess number of the stocks which par value makes more than 75% of authorized capital of national enterprise.

Among other essential characteristics of national enterprise we will allocate the following:

- for financing of operations on purchase of stocks at the enterprise - the issuer the fund of incorporating formed at the expense of net profit is created;
- the left workers are obliged to sell the stocks to national enterprise;
- vote at general shareholder meetings is carried out, as a rule, according to the principle "one shareholder – one voice".

In an assessment of social and economic capacity of such enterprises it is comparable the approaches established by the Russian legislation to the solution of key problems of their functioning and development with practice of use of the ESOP model already considered by us. Such comparison allows making a number of basic conclusions:

- A. The state role in Russia is reduced only to a legal regulation of national enterprises. Any tax privileges (in relation to enterprise profit, dividends) it isn't provided.
- B. The analog the trust fund created in ESOP, in the Russian model isn't present. Activity of fund of incorporating is limited only to accumulation of the money necessary for repayment of stocks. It is important to consider also that the called fund is an integral part of finance of national enterprise and is under complete control of its management.
- C. National enterprises are almost deprived of opportunity to attract the external investment resources necessary for their development as outsiders are initially deprived of function of control of their use (even if there is only one outsider and he owns the equity stake the few less than 25%, the legislator provided to it only one voice in business management).

It is natural that practice of creation and development of national enterprises in Russia isn't mass. At the same time, it should be noted that in scientific publications examples of the organization and functioning of a number of national enterprises are given: The Naberezhnye Chelny cardboard and paper combine (Republic of Tatarstan) which started working with the first in Russia in an organizational and legal form of closed joint stock company of employees; Arkhangelsk Bread-baking Complex National enterprise; Uralalmaz National enterprise; KONFIL National enterprise (Volgograd); Podolskabel National enterprise. This list can be continued, however, it doesn't

remove a conclusion about isolated cases of creation and successful work of national enterprises in Russia. We believe that such situation is programmed obviously by their unsuccessful economical and organizational model offered by the legislator.

Nevertheless, it is necessary to pay attention to the experience of the Lipetsk region connected with the state support of processes of creation and development of national enterprises. It is a question of development and implementation of the regional target program "Development of National Enterprises in the Lipetsk Region for 2012-2014" approved by the resolution of the Government of the Lipetsk region No.253 from 22.06.2012. We will notice that such program is focused on the solution of the tasks provided by "Strategy of social and economic development of the Lipetsk region for the period till 2020".

We will focus attention on the main components of this program.

- A. The program purpose – development of collective forms of managing, formation of socially fair relations of production.
- B. Volumes and financing sources. Source of financing are means of the regional budget. The planned amount of financing of stocks of the program makes: 67750 thousand rubles, including by years: 2012 – 1750 thousand rubles, 2013 – 49500 thousand rubles, 2014 – 16500 thousand rubles.
- C. Expected results of implementation of the program:
 - creation of 5 national enterprises;
 - increase in number of employees of national enterprises to 400 people.
- D. The mechanism of implementation of the program includes:
 - development of program stocks;
 - development of offers on distribution and redistribution of financial means;
 - subsidies;
 - monitoring of implementation of the program (quarterly and annual), including an assessment on two indicators (to the number of employees of national enterprises, number of national enterprises).

The structure of program stocks includes:

- granting subsidies to national enterprises as compensation of part of expenses for organizational expenses (the total amount of 2500 thousand rubles);
- granting subsidies to national enterprises as compensation of part of expenses for acquisition of fixed assets for implementation of primary activity (60000 thousand rubles);
- granting subsidies to national enterprises as compensation of expenses on legal, consulting, organizational support and the organization of training of workers (5250 thousand rubles).

Considering experience of distribution of employee ownership as a possible example for replication in other territorial subjects of the Russian Federation, it is necessary to allocate its strong and its weaknesses. In our opinion, it is necessary to carry the first:

- the medium-term character of the target program, allowing, on the one hand, to provide the necessary time for achievement of a number of significant results, with another to consider the saved up experience and the changed parameters internal and environment of national enterprises when developing the new program for the subsequent period.

To weaknesses of the called pilot project can be carried:

- declarative nature of criterion function of the program. Its formulation doesn't allow to determine accurately concrete options of managing of the enterprises which will be improved, and also structure of expected effects (economic, social);
- presenting intermediate results as the final. It is believed, that at all importance of the indicators fixing number of the national enterprises and number of workers occupied on them, they aren't the essential. The main sense of institutional and economical and

organizational transformations of subjects of the managing connected with creation and development of collective ownership, consists in increase of economic and social efficiency of their activity. Therefore as a part of program indicators, along with called, have to be such, as growth of labour productivity and quality of products, improvement of working conditions;

- orientation to creation of national enterprises only in the sphere of small business (as the average number of one created enterprise doesn't exceed 100 people), in the absence of accurately recorded priorities in types of the economic activity carried out by such enterprises and supported by the government;
- use in practice of the government financial support of national enterprises of only one tool (subsidies).

CONCLUSIONS

The main initiator of institutional transformations in ownership of the companies in the USA, countries of Western Europe and Russia is the government, using organizational legal and economic influence. The range of applied institutional, organizational and financial instruments is the widest in the American practice. Government support of creation of employee ownership in the European countries ends generally on a phase of transformation of the relations of ownership, unlike the USA where it extends on phases of its functioning and development. The Russian experience of expansion of employee ownership during privatization was unsuccessful, first of all, because of the lack of attention from the government to this problem. The Russian business didn't show interest in preservation of employee ownership in connection with severe constraints of the competition for private ownership. The post-privatization period is characterized in Russia by very fragmentary attempts of business and the government to expand employee ownership, mainly, due to creation of national enterprises. Organizational and institutional conditions of expansion of employee ownership are obviously insufficient.

Despite a poor development of employee ownership in Western Europe and Russia, its high potential from the point of view of business socialization should be noted. The most obvious social and economic effects which can be received as a result of functioning and development of employee ownership:

- creation of an economic basis for participation of the production employee in company management;
- formation of collective responsibility for results of joint work;
- strengthening of resistance potential to hostile acquisitions;
- development of social partnership system.

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INTERNAL CONTROL MANAGEMENT FUNCTIONS

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ABSTRACT

The increasing globalization and the very dynamic changes in the market, especially capital markets, capital owners and investors need an opinion on the financial statements of companies that are the subject of their interest. At the same time the management companies are looking for ways to establish better control of the company, which is a long and continuous process. Full support in that it provides an internal control. For example Sierpinski triangle shown in the graphs are given elements of management approach to internal control. The present elements coexist in mutual relationship and together form a strong and cohesive unit. There is no such system of internal control to every time ensure perfect results.

Keywords: management, management, Sierpinski triangle, internal control.

INTRODUCTION

In order for a company to survive it needs to have its own style of organization and management. Within the set of the management, it is necessary to have a built a system of internal controls. It has long been sought for ways to have better control of the management company that manages it. Internal control fully supports it. Without timely and accurate internal control management will be in a position to properly direct the company to set targets by the business owner. Since the control cannot exist in isolation, but is part of its framework, management should ensure that the process of internal control is regularly reviewed, or optimal. Therefore, in well-run companies, executives are trying to maintain their skills and knowledge and ensure the flow of information, while the management is trying to support them.

There is no unified methodology of internal controls, which could be regarded as generally accepted best practices. Also, there is no generally accepted model for its application in the enterprise. Management of internal control involves a clear description of the roles and responsibilities in the exercise of control starting from the position of management, operations, and technology implementation in the company, available resources which are available to the responsible charge of the implementation of internal control. This avoids confusion in the management company. At the same time achieves the reliability of information, and provides flexibility to the strategy of companies and protects the interests of business owners.

Depending on the programmed system security, company size and other criteria, a number of companies formed and internal audit as a separate entity. Internal audit can be viewed in two basic frameworks. The first is across the enterprise in which the operations of the same processes take place. The second box is around the level, involves observing the wider society, and includes observation of the entire public sector. Observation of internal audit functions and internal auditors may be seen as a logical extension and continuation of the development of the internal control

system, which has existed for decades in companies. Therefore, a better quality of work of internal control is more relevant to the external auditors, as they can be on it more fully and in greater extent rely on the performance of the external audit function and control (Ljutić, 2005th, p. 121 and 153).

MANAGING THE PROCESS OF INTERNAL CONTROL COMPANY

Internal control is incorporated into management activities within the company. According to COSO (*Committee of Sponsoring Organizations of the Treadway Commission*) website, internal control is "inherent in the way management runs a business" (Committee of Sponsoring Organizations COSO - in 1992th, p.10). Internal controls include policies, procedures, processes, plans, strategies, functions, systems, initiatives, activities, and other actions taken by management in order to achieve the set business objectives. The system of internal control is the extent in methods and procedures that are introduced to the company for protection of the integrity of resources and support the structure of the control, to all jobs during the flow of current work processes performed in the manner prescribed or provided (Vitorović 2002th, p.6). At the same time, the system of internal control of the business system is the most important and the most applied form of surveillance. "The solution of internal control is an integral management risk which is integrated into the management structure covering all areas of business enterprise" (Chorafas, in 2001th, p.43).

Internal control is a process that is shaped by the supervisory board of the company, or management in order to obtain a reasonable belief on the achievement of objectives in the following areas: improving the efficiency of decision-making by management, increase the reliability of financial reporting, preservation compliance with applicable laws and regulations and also asset protection (Soltani, B., 2009., p.303).

The elements of management approach to internal control are shown in diagram form on example of Sierpinski triangle. With it are shown the elements that must coexist in mutual respect. Together they make a very strong and cohesive whole. It is important to emphasize that the system of internal control can provide absolute safety in their operations, and it represents a compromise between cost and safety. However, it is believed that they will have access to the advantages offered in comparison with other frames. "New standards of internal audit define control as any activity that takes management, board or other person in order to improve risk management and to increase the likelihood that the planned objectives will be achieved" (Stanisic, 2006th, p.24).

ELEMENTS OF THE INTERNAL CONTROL PROCESS

This paper presents the sixteen elements of which depends functioning of the internal control system introduced in the company. They represent a broad framework, which the company management can organize and implemented in the company, with the aim of improving business results and increase the security of the enterprise. It should be noted that the present elements are just possible frameworks for the establishment of internal controls in the company. In fact it is more comprehensive control, multi-level security, the costs are typically higher, but there is a higher level of security for the operation and functioning of the company. These elements are shown in figure 1.

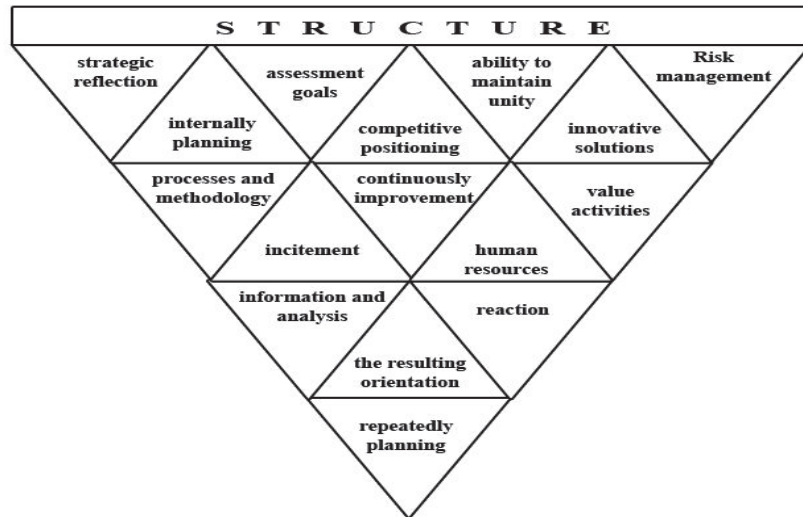


Figure 1: on the Root, JS, elements of the internal control access to the controls, Beyond COSO Internal Control To Enhance Corporate Governance, John Wiley & Sons, Inc., United States of America 1999, p.171.

It is important to emphasize that there is no uniform application of the elements of internal control. Management gives more or less importance to a particular element management approach or combining several elements to get the desired results, especially in the field of security systems. In many companies strategic thinking is composed of a strategic planning process and is expressed in the form of long-term strategic plan. There is considerable overlap of strategic thinking and internal planning. "The question that often arises in the formulation of the plan of the company is where do we see ourselves in ten years. To successfully answer this question, the company should consider: what does it want to achieve and that are its goals, as it aims to achieve and what resources will be required. How successfully is it working in comparison with the control plan" (Lynch, 2007a., p.39). In managing internal controls, risk is accompanied by a certain degree of uncertainty in the store. Risk can be defined as the volatility of unexpected outcomes of the value of the property or interest obligations (Jorion, 2001, p.3).

Management should do everything in its power to reduce risk to a tolerable level. COSO defines risk of tolerance as follows: "...an acceptable level of variation associated with the achievement of goals. In determining the specific risk tolerances, management considers the importance of related objectives and aligns risk with them" (Allen, HJ, Dickson, RM, Graziano, C., Kreitner, C., Lajoux, A., Ozier, W., Chair, V., Salamasick, M., Sinnett, B., Waller, K., 2006th, p.15). Relation of internal controls that could be established on the basis of which they can expect better business results is provided in the figure 2.

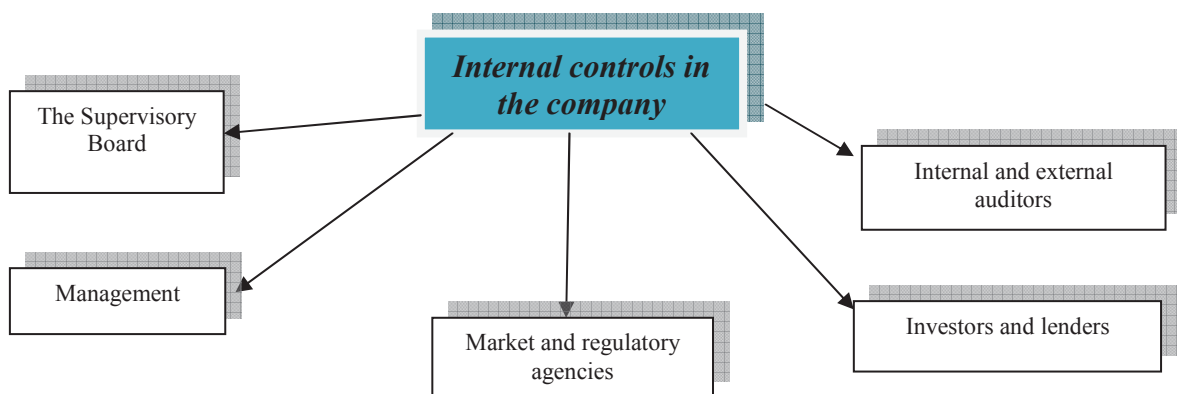


Figure 2: Relation company's internal controls important parts of the company and the environment, authors in 2014.

Companies that invest in their employees, strive for greater success than those who do not. "It is a known fact that inexperience and lack of qualifications of the employees have a major impact on the occurrence of errors." (Vitorović, 2004th, p.36). Plan controls and audits should include, or anticipated use of the work of other experts in order to financially report a higher dose of objectivity (Ivaniš 2003th, p.105). Succession planning helps to shape the way in which the scenes unfold. A company that does not have an effective program of successive planning probably will not have an effective process of human development (Eremić-Đodić et al., 2013th, p.309).

CONCLUSION

Through internal control system are detected weak points of operation and management that are becoming increasingly clear on any underlying decisions and certainty with which the company is managed. Described approach to managing the internal control process offers the advantage of integration of the ways in which business initiatives efficiently operate the company with sixteen illustrated elements. This provides support for accessing management structures to successfully lead a business system and run it. Is the best point of view that appeared in recent years, including the COSO Framework.

As such, it recognizes the importance of the structure of five interrelated components (control environment, risk assessment, control activities, information and communication, surveillance or monitoring) that is a measure of an effective system of internal control. They are integrated into the control system and arise from the manner in which management controls the company. Therefore it is recognized the importance of structure in combination with the consideration of business ethics and values of the equivalent components of the control environment COSO.

The elements of information, analysis, risk management, positioning and processes and methodology are correlated with components of the COSO control activities and risk assessment. Illustrations sub-elements: assessment, communication and systems, other components of the risk assessment, monitoring, and information and communication. Elements of strategic thinking, internal planning, setting goals, the ability to maintain a whole, innovative solutions and motivating staff lead internal control beyond the boundaries set forth in the COSO framework.

The value of shares, the ability to maintain a whole, the application of innovative solutions, development of human resources and rapid response to changes in the elements are together enabling business enterprises to perform superior performance. In a competitive environment it means by which to formulate strategies, plans, and evaluate the effectiveness of corporate governance. All sixteen (16) illustrated elements together form a complete approach to managing the internal control of company.

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PILLARS OF COMPETITIVENESS OF FORMER YUGOSLAV REPUBLICS

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ABSTRACT

After the dissolution of the former Yugoslav socialist federation known in the world as «Tito's Yugoslavia», calming war actions and establish stability in the region, each of the five newly independent republics began the process of economic transformation and continuous improvement of competitiveness in parallel with the process of accession to the European Union. Subject of research in this paper is just actual level of competitiveness of these countries, similarities in the former development as well as differences in positions in the list of global competitiveness. By using previously established scientific-theoretical knowledge and empirical facts about the defined research subject, the study of this topic takes on a theoretical-empirical character. Quantitative data are collected by applying the desk methods and they are available in actual the Global Competitiveness Report which are a secondary, public data source. With retrospect on the research methodology that is presented in the Report and the analysis of individual pillars that constitute the complex concept of competitiveness, the comparative method will be applied in further work in order to determine the identities, similarities and differences in the achieved levels of competitiveness of former Yugoslav republics. The aim of the research relates to highlight actual competitive position, strengths and weaknesses of the analyzed countries with special focus on proposing measures to improve competitiveness and enhance positioning on the global economic scene.

Key words: Competitiveness, The former Yugoslav republics, Pillars of competitiveness, Competitive strengths, Competitive weaknesses

INTRODUCTION

The territory of the former Socialist Federal Republic of Yugoslavia (SFRY) has, due to its turbulent past, controversial events and constant volatility, become an endless field of various topics for research and discussion. Upon the dissolution of the state union and the end of war conflicts, the former SFRY countries have implemented social, political and economic reforms of different intensities, in order to improve their own competitiveness and accelerate the process of accession to the EU. Currently, they are facing quite serious consequences of global recession such as massive contractions in consumer demand, slowed accumulation of capital, sudden rise of unemployment, decline in foreign investments and in demand for export products. Analyzing and applying the results of the report of The World Economic Forum (WEF) augments the ability of a country to observe the competitive strengths and weaknesses, improve its global competitive position, create better conditions for stimulating own economic growth and development and thus as soon as possible leave the vortex of global crisis and make solid steps onto the path of economic recovery. The research problem relates to the complexity of the concept of competitiveness and the significance of positioning the national economy on the global competitiveness list, whereas the subjects of research are the pillars of competitiveness in the countries of the former SFRY, i.e. the results achieved and positions attained in 2013. Therefore, highlighting competitive strengths and

weaknesses, with analyzing the problematic areas that require urgent reforms and proposing corrective activities are the main objectives of this research.

LITERATURE REVIEW

Due to a small number of national authors who deal with this problem as well as the limited literature in this research predominantly are used works of foreign authors. Many foreign authors dealing with various issues related to competitiveness emphasizing the increasing of their importance especially in the era of global economy. This is confirmed by Jenkins et al. (1999) who says that enormous consequences of globalization is that competitiveness is no longer considered only within national borders. Researching the globalization and competitiveness Hatzichronoglou (1996) found that competitiveness is the ability of companies, industries, regions, nations or supranational regions to generate, while being and remaining exposed to international competition, relatively high factor income and factor employment levels on a sustainable basis. As Schwab and Porter (2007) emphasized competitiveness is the set of institutions, policies and factors that determine the level of productivity of a country. In actual WIR Schwab and Sala-i-Martin (2013) found that the concept of competitiveness involves static and dynamic components and that the productivity of a country determines its ability to sustain a high level of income. It is interesting that Krugman (1994) treated national competitiveness as a “dangerous obsession” of a zero-sum global game. Considering many competitiveness research and studies Balkyte and Tvaronavičiene (2010) note that competitiveness is not just about growth or economic performance but should take into consideration the “soft factors” of competitiveness such as the environment, quality of life, technology, knowledge, etc.

The growing importance of competitiveness is also stressed by Ogorean and Herciu (2010) who describe competitiveness as a complex and a multidimensional and multilevel concept which has become a central concern in an increasingly open and interrelated-to-integrated global economy. It is based on the theory of the 12 pillars determining national competitiveness it develops and calculates which are a country's strengths and weaknesses, how it is placed among the other countries which are similar regarding their level of development – in order for the different interested entities to be able to take a decision. According to Schwab and Sala-i-Martin (2013) it is important to keep in mind that 12 pillars of competitiveness are not independent: they tend to reinforce each other, and a weakness in one area often has a negative impact in others.

METHODOLOGY

The application of desk method has brought to the extrapolation of quantitative data from The Global Competitiveness Report (GCR) which represents a source of secondary and public character, and is published by the WEF. Secondary analysis of existing research material explains the methodology used in the research of global competitiveness. In the analysis of collected quantitative data, the method which has been applied is the description method, in order to describe important facts related to the phenomenon of competitiveness and its components. The further course of research puts accent on the pillars of competitiveness and, via the use of comparative method, compares similarities and differences in the results achieved and positions attained in the global competitiveness list, with simultaneous comparison of competitive strengths and weaknesses achieved by analyzed countries. Since the aim is to confirm the known facts about the phenomenon of competitiveness while simultaneously discovering new knowledge regarding the similarities and differences among the pillars of competitiveness of the countries of the former SFRY, it can be concluded that the described research is socially useful, underlining its scientific justification.

FINDINGS AND DISCUSSION

Complexity of the concept of competitiveness

Competitiveness of every national economy is measured by GCI that records microeconomic and macroeconomic foundations of national competitiveness and the value of this index provides a better understanding of key factors that determine economic growth. In the period of overcoming the consequences of economic and financial crisis, emphasis is on a very significant role of this index in the measurement of impact of global recession on sustaining long term competitive advantages of former SFRY countries. Three subindices have been derived from GCI: Basic Requirements, Efficiency enhancers and Innovations and sophistication factors, which are constituted of twelve pillars of competitiveness as it presented at Table 1. Within the GCR, each analyzed national economy is first ranked according to the achieved result of global index, and then according to the results of three subindices and twelve pillars of competitiveness (Lazić and Markov, 2012). The pillars are mutually related, with a tendency of one pillar's influence on the strengthening of the other and vice versa. Each pillar, individually speaking, has a different significance and unequal intensity of impact in the process of formation of competitive position, primarily due to evident differences in the achieved levels of country development. When calculating the GCI it is very important to adjust individual measurements to the level of development of a certain country, to take into account its belonging to one of defined development phases, as well as to appreciate the contribution of each pillar of competitiveness to the final result. The methodology is as follows:

$$GCI_{ij} = W_{j1}Basic_i + W_{j2}Efficiency_i + (1 - W_{j1} - W_{j2})Innovation$$

k = 1,2,3; index of country (i); level of development (j); weight (W)
Source: The Global Competitiveness Report 2012/2013

It is observed that the final result actually represents a weighted average of several various components, each of which represents only one part of the complex concept of competitiveness (Tankosić Vapa and Lazić, 2012). The calculated value of GCI moves within the interval from 1 to 7 measurement units and directly affects the positioning of a national economy in the global competitiveness list, which contains 144 countries of the world, according to the current report from 2013.

Comparative analysis of pillars of competitiveness of former SFRY countries

The required data for further research have been abstracted from GCR using desk method, and presented in Table 1 which shows the positions attained and results achieved in 2013 for all countries of former SFRY, taking into account all of the twelve pillars of competitiveness. Bosnia and Herzegovina lags significantly behind other countries with which it had constituted a state union until two and a half decades ago. Institutional instability, outdated and unmaintained infrastructure network, inefficient goods market, underdeveloped financial market and very modest business sophistication of workers are particularly problematic areas. The competitiveness of Bosnia and Herzegovina is further reduced by unrestrained spending by the government, as well as non-transparency of its work, whereas extremely poor quality of road, rail, river and air transport network puts it onto the very bottom of the competitiveness list. Competition in the goods market is almost non-existent, and a vast number and long durability of procedures for business commencement ward off both foreign and national investors from the idea of commencing business projects. Competitive advantages of this country are extremely modest and are shown in the area of primary healthcare, basic and higher education and training.

Institutional stability of Montenegro is characterized by confidence of citizens in the work of public institutions, transparency of government work as well as controlled expenditure of state funds. Necessary loans may be obtained easily in the financial market, inflationary threats are weak, and

education sector and primary health care are the areas in which the highest number of competitive advantages is achieved. Macroeconomic stability in Montenegro is undermined due to the imbalance in state budget and insufficient participation of national savings in the GDP. Lengthy procedures of business commencement, inadequate tax policies and the lack of tax incentives are the main factors that discourage foreign investors which could, through investing fresh capital, accelerate the growth and development of the Montenegrin economy. Small size of internal market and small number of market participants is a special weakness of Montenegro, which contributes to the development of monopolistic competition.

In case of Croatia, it can be said that in recent years it has made tremendous progress and improved its competitive position, and thus as the youngest member of the EU it has become a very appealing and attractive investment destination. It generally achieves competitive advantages in the areas of health care, primary, secondary and higher education, development of innovation, as well as encouraging research and development activities and cooperation between industrial companies and university institutions. High quality road and rail transport network, sufficient number and modern equipment of airports and harbour docks provide fast and easy transport of people and goods, thereby contributing to the competitiveness of the Croatian economy. In order to commence business in Croatia it is necessary to spend less time and take fewer actions than in other analyzed countries, while simultaneously finding good technological equipment and educated workforce. However, restrictive tax policies, uncompetitive goods market, underdeveloped financial market and reduced efficiency of workforce market often demotivate foreign investors and national businessmen, since they represent business obstacles and sources of the majority of competitive weaknesses. In institutional sectors, it is necessary to implement a series of reforms in order to increase the confidence of citizens in the work of public institutions, lessen the burden of government regulations, restrain uncontrolled spending of budget funds and protect the interests of minority shareholders.

Macedonia is characterized by very good macroeconomic stability which is manifested through balanced state budget, moderate inflation and satisfactory share of national savings and state debt in the GDP structure. In the area of primary health care, primary and higher education, the majority of competitive advantages are achieved, although on the other hand the quality of higher education institutions in business and management areas has been neglected, and very little attention has been paid to the significance of constant training of staff in education. The influence and ultimate effect of taxation is a competitive advantage of Macedonia, as well as the number of days and actions to be undertaken in order to commence business. If the above is expanded by flexible wages and liberal laws on hiring and firing employees, in the future this country may become a very interesting investment destination. However, the main pillars of competitiveness Institutions and Infrastructure are areas without a single competitive advantage, and in which it is necessary to promptly implement the needed reforms. The last three pillars represent the source of the majority of weaknesses of Macedonia, since the national market is small and uncompetitive, business sophistication of workers is neglected, and the lack of interest in learning and developing innovations is evident.

Upon the dissolution of the state union, Slovenia was the first to establish a stable, market economy, able to confront the tough competition in the European market, to meet the political, legal and administrative criteria and to become a full member of the EU in 2004. It has a developed infrastructure which is adapted to contemporary European standards, achieves macroeconomic stability, institutional development, achieves outstanding results in the field of primary health care and primary education of its residents, and achieves fifth position in the global competitiveness list by distribution of high and higher education. In Slovenia it is necessary to spend very little time and make minimum effort to commence business, favourable trade and customs regulations have been introduced, import has a significant share in the GDP structure, and the share of female population in the workforce structure is constantly increasing. Technological equipment, business sophistication and innovations are areas in which the majority of competitive advantages are achieved which contributes to much better positioning of Slovenia in comparison to other countries

of the former SFRY. However, foreign investors do not come across friendly laws on foreign ownership, which is normally very poorly spread; they suffer the burden of government regulations, restrictive laws on work and employment and unfavourable tax regulations. Aggravated access to sources of financing, unfavourable loan conditions, inability of financing through local capital market, scarce offer of financial services and problematic functioning of banks are the key factors that contribute to the underdevelopment of the financial market of Slovenia.

Serbia is very poorly positioned in the area of infrastructure network, institutional development and macroeconomic stability so it can be classified in the group of underdeveloped and uncompetitive African countries. Old and unmaintained roads and railways hinder regular and business movement of people, slow down and often disable normal functioning of trade flows (Lazić and Markov, 2011). Within the said area, the process of liberalization has not yet been implemented, reforms are progressing at a very slow pace, and scandals related to the financing of infrastructure development occur quite often. Transition in the sector of Serbian economic infrastructure requires improvement in key areas of tariff reform, commercialization, competitiveness, privatization, legal and institutional development (Bajec and Jakopin, 2006). Institutional sectors are at an extremely low level of development due to improper functioning of the government, presence of organized crime, behaviour of economic entities that is contrary to the rules of fair competition and lack of interest of competent authorities in the provision of more suitable conditions to foreign investors.

During the last couple of years, Serbia has achieved its best position in the area of primary health care and education. It achieves competitive advantages through adequate manners and means of prevention of infectious diseases, prolonging life expectancy of its population and establishing cost efficient, yet high quality primary education system.

With the introduction of Bologna principles in higher education institutions, the educational process has been significantly renewed, whereas the production of expert and qualified staff of various profiles has also been provided. However, unemployment is one of the key problems in Serbia that affects the young population. The fact that this is a particularly severe long term problem is confirmed by the age structure of the unemployed, especially the analysis of young unemployed people. According to the latest data (pursuant to the Survey on work force), the youth unemployment rate is the highest in Europe and amounts to 47,8%. The European range goes from the lowest rate of 7,7% in Denmark to the highest of 47,8% in Serbia (Jakopin, 2008).

Table 1: Pillars of competitiveness in former Yugoslav republics in 2013.

Country		Bosnia and Herzegovina		Montenegro		Croatia		Macedonia FYR		Slovenia		Serbia	
		Position	Result	Position	Result	Position	Result	Position	Result	Position	Result	Position	Result
Subindex	Pillars												
<i>Basic requirements</i>	Institutions	85	3.6	44	4.4	98	3.5	78	3.8	58	4.0	130	3.2
	Infrastructure	94	3.4	66	4.1	44	4.7	81	3.6	35	4.9	77	3.8
	Macroeconomic environment	97	4.3	118	3.8	60	4.7	47	5.0	50	4.9	115	3.9
	Health and primary education	48	5.9	73	5.7	60	5.8	77	5.6	24	6.3	66	5.7
<i>Efficiency enhancers</i>	Higher education and training	72	4.2	51	4.6	56	4.5	81	4.0	23	5.2	85	4.0
	Goods market efficiency	109	3.9	48	4.4	114	3.9	68	4.3	49	4.4	136	3.6
	Labor market efficiency	99	4.1	93	4.1	106	4.0	94	4.1	91	4.2	100	4.0
	Financial market development	119	3.4	40	4.5	92	3.8	79	4.0	128	3.3	100	3.7
	Technological readiness	68	3.8	56	4.1	50	4.4	71	3.8	34	5.0	58	4.1
	Market size	93	3.1	130	2.1	71	3.6	104	2.8	78	3.5	67	3.6
<i>Innovation and sophistication factors</i>	Business sophistication	109	3.5	76	3.8	96	3.7	111	3.4	53	4.2	132	3.1
	Innovation	80	3.1	60	3.3	74	3.1	110	2.8	32	3.9	111	2.8

Source: The Global Competitiveness Report 2012/2013

CONCLUSIONS

According to WEF criteria, Slovenia has a highly competitive economy that is in third phase of development, among the economies driven by innovation, unlike other countries of the former SFRY that belong to the second phase of development and the group of economies driven by efficiency.

With the exception of Slovenia, it may be noted that in other countries of the former SFRY the pillars of competitiveness that stand out due to their good results are health and primary education, as well as higher education and specialization, but young professionals are seldom provided with adequate treatment after completion of schooling, so in the said countries there is a phenomenon called “brain drain”, that shall certainly be continued in the future. Common competitive weaknesses are underdeveloped business sophistication, absence of professionalism in work and disregard of ethical values. It is quite difficult to change the existing habits and dull, rigid norms of the behavior of workers and employers who, above all, neglect the development of positive business culture and the creation of a pleasant working ambience. The employers in the abovementioned countries often view the investments of financial resources in the education and specialization of their employees as an irrecoverable expense and unnecessary waste of capital.

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THE ESSENCE OF LIQUIDITY RISK OF COMMERCIAL BANKS

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ABSTRACT

Liquidity allows commercial bank to satisfy customer requests for withdrawal of deposits and meet demand for loans. The liquidity requirement is determined by fluctuations in the demand for loans and variability in deposits. The more volatile bank flows of loans and deposits, the higher liquidity bank must have. Liquidity risk represents the danger of not being able to fulfil payment obligations, whereby the failure to perform is followed by undesirable consequences. In order to minimize the risk associated with the loss of liquidity bank must strike a sound balance between highly liquid assets and demand deposits, short-term assets and short-term obligations, long-term assets and long-term obligations. Theoretically, the bank's liquidity risk is minimum in a case the liquidity surplus (deficit) equals zero. In practice the more liquidity risk, the less available liquid assets bank has in a given time compared to liabilities with the same maturity.

Key words: commercial bank, banking liquidity, liquidity risk.

INTRODUCTION

Financial market is quite difficult high-technology and unstable environment. Banking industry is inherently connected with different financial risks, central of which are credit risk and liquidity risk.

The liquidity of commercial bank should be read as its capacity to ensure that all payment obligations are fulfilled as and when they fall due with minimum losses. Banking liquidity is defined by equilibrium between assets and obligations, quality of conformance of maturity of assets in place versus borrowed funds. Also banking liquidity contemplates the possibility to sell liquid assets and buy cash via different financial instruments as soon as possible at a minimum of cost.

The well-balanced, steady and sustainable functioning of lending institutions in national economy depends on how banks manage their liquidity, build the capital base, finalize the interest-rate policy on active and passive banking transactions, can organize working activity and ensure highly competitiveness in the marketplace of banking products and services. Major faults in managing in the banks are either under estimation the role of risk-management, either incorrect presentation of a problem. Conversely, the proper estimate and correct risk-management let minimize losses of banking institutions significantly.

The key pillar in banking activity is profit-maximizing behaviour. Usually it is limited to expectation of possible losses. It is connected with the existence of risk as value terms of probabilistic event lead to financial losses. The more chance to absorb interests, the more risks are. Risks are arising from defac to data at variance with formal appraisal of update and future. These fluctuations can be both positive and negative. In the first instance, we are talking about the chance to earn a profit, in the second instance – about risk to sustain a loss.

Profitability is the most important criteria for making decisions about investment of capital in one or another asset. However yield increase and risk mitigation are the two opposite issues. Usually banking transactions with high risk generate high profit while transactions with lower risk are coupled with low-level profit.

Liquidity requirements come into conflict with the target function of income maximization per unit of assets. The higher the liquidity of assets held in the bank's portfolio, the less risk associated with them, and consequently the paid interest rate on them is lower too. The art of bank management is to ensure the highest rate of return on capital invested in assets, in control of enacted liquidity ratios.

There are some ways to ensure the adequate level of liquidity:

- withdrawal or conversion of a credit;
- sale of part of the portfolio of loans and investments;
- distribution of assets and liabilities by compilation of a table of all liability accounts in order to identify how much of each type of liability should be placed in a liquid asset to maintain certain liquidity ratios;
- expansion of passive banking transactions of mobilization customer deposits;
- issue of marketable deposit certificates, bonds, etc.;
- contracting of loans from the central bank, etc.

Thus, you can make a profit only in cases where the possibility of incurring losses (risks) will be foreseen in advance, weighted and insured.

“LIQUIDITYRISK” CONCEPT IN SCIENTIFIC LITERATURE

The concept of "risk" is multifaceted, and it is defined differently. In the broadest sense, risk is the uncertainty about the occurrence of an event in the future. In banking activity risk means the probability that an event occurs that would affect the profits or capital of the bank, other speaking violations of liquidity and (or) financial losses will be possible.

Liquidity is the bank's ability to timely raise funds and fulfill their obligations when they come due "without incurring unacceptable losses" (Kangihian, N., 2010). The second part of this definition is a relatively new and has a great importance for the regulation of the internal control.

In the scientific literature there are different definitions of the concept of liquidity risk, there is not a general opinion about the nature of this risk.

The first class of economists emphasizes liquidity loss risk. Liquidity loss risk for the bank is associated with the impossibility of rapid conversion of financial assets in the means of payment at reasonable prices without attracting additional losses or liabilities (Zharkovskaya E., 2010). This risk occurs when the "golden rule of banking" is breaking: bank assets are at odds with bank liabilities in amounts and timing. Liquidity loss risk make a negative impact on the financial position of the bank, increasing its costs from both the active part of the balance due to losses in the realization of the assets and liabilities side - due to the increased costs of raising funds compared to the standard situation when the liabilities are lured at prevailing market rates.

The second class of economists high light risk of having insufficient liquid funds - the risk of losses due to the inability of the credit institution to enforce all of its obligations in full (Petrov A., Petrova V., 2008). This risk is associated with actual or potential deficit of banking financial resources, which are necessary to meet their obligations (the return of deposits, payment of interest and dividends on issued securities, payment of taxes, etc.) and the implementation of active operations.

The third class of economists distinguish liquidity limiting risk - the risk of adverse changes in the financial condition of the bank because of the inability to quickly get the means of payment by borrowing or selling assets, the likelihood that the funds needed to cover the withdrawal of deposits and meet the demand for loans will be unavailable on demand, that lead to unexpected losses for the bank (Tavasiev et al., 2005).

And the last class of economists interprets liquidity risk more widely, calling it unbalanced liquidity risk, including in it not only the risk of insufficient, but also the risk of excess liquidity. Platonov and Higgins (2001) noted that risk of insufficient liquidity is expressed in the inability to meet obligations and would require sale of some bank assets on unfavorable terms. And risk of excess liquidity - in the loss of income due to an excess of highly-liquid assets and as a result in unjustified financing low-income assets by bank resources on a paying basis. Thus, under the unbalanced liquidity risk we should understand the risk of loss of income due to the inability or the impossibility of the bank timely adjust its liquidity position, i.e. bring scope of obligations into compliance with sources of their coverage without losses.

Liquidity risk is threefold, it can be:

1. by system origin, in a situation where there is a deficiency of receipts of funds from the central bank or the interbank market, caused by the actions of the regulator or market shock;
2. by private origin when there is limited access to finance, for example, due to lower or negative perception of the market quality of the bank;
3. by technical origin (controlled sector ALM, Asset and Liability Management), when the risk arises from the discrepancy in the payment structure.

LIQUIDITY RISK AS AN INTEGRATION OF ASPECTS OF OTHER BANKING RISKS

To determine the position of the liquidity risk in the system of banking risks we should clearly understand the nature of banking activity and remember that the bank is primarily a mechanism for accumulation and redistribution of funds, the pendulum between the allocation and mobilization of financial resources. The bank's liquidity is the most important link for the successful functioning of all its counterparties.

Liquidity risk is connected with the main types of banking risks, primarily with credit and interest risks. For the liquidity risk analysis we must constantly evaluate the following factors:

- amount of liquid assets and liabilities;
- portfolio credit quality;
- repayment schedule of loans and securities,
- deposit withdrawals;
- portfolio securities liquidity;
- large amounts of loans (deposits), belonging to the client;
- value of the currency position;
- deposits sensitivity to changes in interest rates;
- liquidity conditions in the interbank market; amount of own funds;
- the number of existing credit lines in the interbank market;
- commercial goodwill.

Liquidity risk is the major banking risk accumulating some aspects of private banking risks (see also Figure 1). In fact, unrecovered loan on time, an adverse change in market interest rates, exchange rates or security prices - all this leads to a reduction of available bank funds to meet the obligations.

Liquidity risk should be considered as a basic banking risk, because bank as a financial intermediary working with borrowed funds, placing them on its own behalf and for its own

account. A close relationship with other risks inherent in banking activities confirms the need for the system management of the credit institution to limit the negative impact of the whole complex of the banking risks, which finally will enhance the long-term financial stability of the bank.

It is very important that even a single bank's refusal to meet its obligations, even caused temporary and assignable causes, such as technical delay payments in the payment system, can irreversibly affect its condition and in extreme cases lead to bankruptcy. Such a fault, be given publicity, becomes a signal to customers and depositors of the bank about its troubles and causes an outflow of bank's funds. Therefore, the management liquidity in banking organizations is a key objective of bank management.

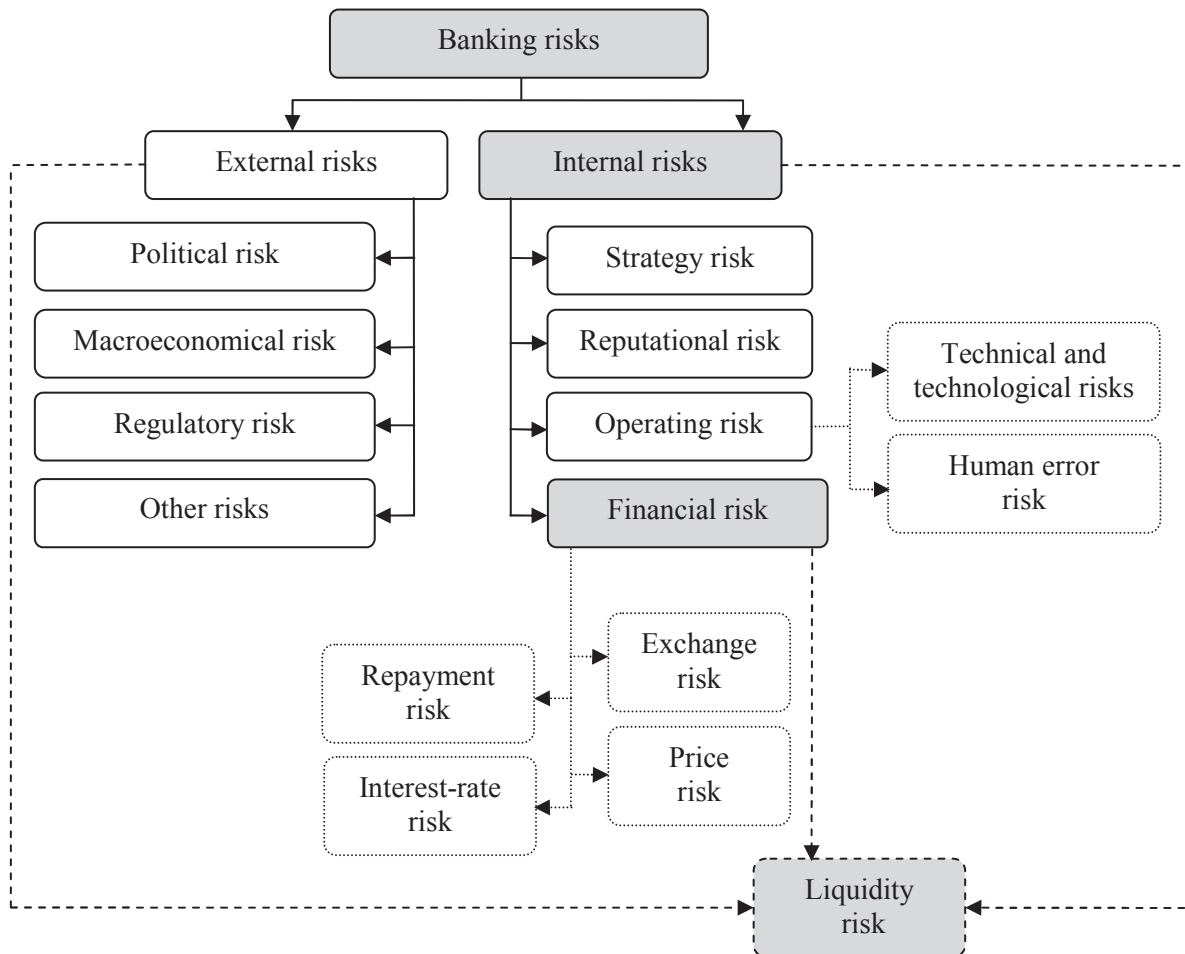


Figure 1: Correlation between liquidity risk and other risks in banking system

When it comes to the characteristic of liquidity sources, the following distinctions are generally made: availability, maturity structure, cost structure and liquidity risk. Structurally they are usually grouped into the following four blocks (Duttweiler R., 2009):

1. Call liquidity risk: this relates to both assets and liabilities; drawings under an option facility may be executed; deposits can be withdrawn heavily at the earliest date possible instead of being prolonged.
2. Term liquidity risk: payments deviate from the contractual conditions; repayments may be delayed for example.
3. Funding liquidity risk: if an asset has not been financed congruently, the follow-up financing may have to be done under adverse conditions, i.e. at a higher spread. In extreme cases, funds may even be withdrawn heavily as explained under call risk.
4. Market liquidity risk: market liquidity relates again to assets and liabilities; adverse market conditions may reduce the capacity to turn marketable assets into cash or to fund the required

quantity. A combination of both effects is possible as well.

Furthermore, we know that liquidity is just one element to be watched and managed within a bank. Applying a categorisation as is common in the business literature; one can start with business risk, go to customer risk, add the trinity of market, credit and operational risk, and close the circle with auxiliary risks.

THE NECESSITY FOR LIQUIDITY RISK-MANAGEMENT IN CREDIT INSTITUTIONS

The entire history of banking demonstrates that erroneous policy in financial risk-management can lead the bank to bankruptcy. Liquidity management is one of the priorities in banking management theory and practice. The hallmark of a reliable and sustainable bank is its ability to meet customer needs on demand. The problem of liquidity risk analysis and management for Russian commercial banks is complicated by the instable financial situation in the country. Therefore, assessment and management of liquidity risk is an important component in the banking risk-management.

Watching the developments in the banking sector transformations - increasing influence on the liquidity of the bank off-balance sheet financial instruments (Russian banks increasingly manage their assets and liabilities by interest rate and currency derivatives), the growing influence of market factors on the ability of the bank's funding, the complexity of banking products (floating interest rates, embedded options, etc.) - we can conclude that because of the globalization of international financial markets, increasing complexity of banking products and business environment the liquidity of Russian banks in a greater degree depends on such uncertain market factors as interest rates, credit spreads and other market indicators. Even a slight change in their size or volatility may cause the bank significant additional obligations.

Under that logic traditionally used by banks practices for liquidity risk management (GAP-analysis of payment position or, for example, maintaining a stock of liquid assets) in the present circumstances may be ineffective. Commercial banks do not know future liquidity gaps; injection of large share of assets in liquid instruments is unprofitable and does not guarantee complete protection against liquidity risk. Every day commercial banks face the problem of liquidity risk-management. Underestimation of this problem may eventually lead to insolvency and even collapse of the credit institution.

CONCLUSION

Liquidity risk management is vital for banks in the sense of when there is insufficient or absent liquidity, for the bank it may mean loss the market place due to the fact that the new business won't be financed or even lead to a liquidity crisis when it cannot create new commitments.

The bank has the right to determine their own liquidity management scheme to allow confident self-financing, using short-term financing, as well as to perform medium-term forecasts cash requirements necessary for the bank's activities and the implementation of its strategy in the coming months.

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COMPARATIVE ANALYSIS OF KEY COMPETITIVENESS INDICATORS IN SELECTED TRANSITION ECONOMIES

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ABSTRACT

In recent years, competitiveness of economies has been a topic that receives a growing attention among policy/decision makers worldwide. Key competitiveness indicators can contribute to the identification of standards between countries if the competitiveness analysis is reliable. In order to implement a comparative analysis of key competitiveness indicators, it is very important that the concept of competitiveness is well comprehended. The aim of this paper is to analyze key indicators of competitiveness obtained by the application of different methodologies that effect a better comprehension of the competitiveness of selected transition economies (Albania, Bosnia and Herzegovina, Montenegro, Macedonia, Serbia, Romania and Bulgaria) with selected post-transition economies (Croatia, Slovenia, Estonia, Latvia, Lithuania and Hungary), as well as the correlations of rankings based on various competitiveness surveys and the consistency of their results. The reason for comparing the selected transition economies with post-transition economies stems from the similarity of developmental assumptions and the way of economic growth. Comparative analysis of the key competitiveness indicators of selected transition economies is based on a comparison of results obtained by the application of different methodologies, the valorization of their advantages and the determined statistical correlation between certain countries' positions regarding different competitiveness surveys. Key competitiveness indicators are identified and used to construct national rankings for selected transition economies. Conducted comparative analysis of key competitiveness indicators has indicated a variety of starting points to tackle the deficiencies and limitations to future economic growth in selected transition economies.

Key words: comparative analysis, key competitiveness indicators, selected transition economies

INTRODUCTION

Understanding and improving the competitiveness of economies has been a popular research area. Studies of competitiveness and competitive advantage have been conducted by many respectable international institutions, such as: World Economic Forum, World Bank, Heritage Foundation and European bank for Reconstruction and Development. Comparative analysis of key competitiveness indicators is a response to the increasing interest in analysing the competitiveness of transition economies. Analysis of the key competitiveness indicators of selected transition economies is based on a comparison of results obtained by the application of methodologies developed by mentioned international institutions. Analyzed indicators concern key dimensions of competitiveness performance and relevant national characteristics. Identified key competitiveness indicators are used to construct national rankings for selected transition economies. The data have been drawn from various competitiveness surveys and statistical sources. The research results provide insights into the practice of what affecting competitiveness in selected transition economies. Calculated competitiveness indices will be useful to economic policy/decision makers to understand strenghts and weaknesses of analyzed transition economies. They are also valuable research references for examining the deficiencies and limitations to economic growth of selected countries.

KEY COMPETITIVENESS INDICATORS: THEORETICAL AND METHODOLOGICAL FRAMEWORK

Theoretical framework

The identification of key competitiveness indicators has been examined by many economists and respectable international institutions, such as: World Economic Forum, World Bank, Heritage Foundation and European bank for Reconstruction and Development. Competitiveness is an aggregate term of global characteristics specific to each national economy, while the competitive advantage is a combination of corporate and sector-specific and general national characteristics. Some analysts define competitiveness as the ability of the country to achieve economic growth faster than other countries (Biekowski, 2007, pp. 13-31.). According to Porter (2008), competitiveness is defined by the productivity with which a nation utilizes its human, capital and natural resources. To understand competitiveness, the starting point must be a nation's underlying sources of prosperity. Understanding the factors behind this process has occupied the minds of many economists. Quantitative or qualitative competitiveness can be measured by using WEF reports (Kovačić, 2007). Ying-Chyi Chou, Ying-Ying Hsu, Hsin-Yi Yen (2008) present a model in which they measure the impact of science and technology and human resources on national competitiveness of 42 countries, based on competitiveness index given in World Competitiveness Yearbook. Vukotić and Bačović (2006) emphasize the important impact of economic freedom on economic development. They present an analysis of correlation coefficients that show a strong positive interrelation between the level of economic freedom and foreign investment and conclude that the level of economic freedom is significantly correlated with all macroeconomic indicators of development. Di Rienzo, Das and Burbridge (2007) indicate that the economic freedom index is statistically significant and negatively related to countries' competitiveness and confirm that economically free countries with less institutional rigidities experience higher level of competitiveness.

Methodological framework

The World Economic Forum

The World Economic Forum publishes annually the Global Competitiveness Report, which assesses, by means of quantitative and qualitative data, the capacity of the world's 148 largest economies to achieve sustained economic growth. WEF defines competitiveness as the set of institutions, policies, and factors that determine the level of productivity of a country. According to The Global Competitiveness Report for 2013, Bulgaria was ranked 57th out of 148 countries, followed by Montenegro in 67th place, Macedonia in 73rd place, Romania in 76th place, Bosnia and Herzegovina in 87th place, Albania in 95th place and Serbia in 101th place. The level of productivity, in turn, sets the level of prosperity that can be reached by an economy. Although the productivity of a country determines its ability to sustain a high level of income, it is also one of the central determinants of its returns on investment, which is one of the key factors explaining an economy's growth potential (WEF, 2014). The methodological approach of World Economic Forum has evolved over time with the inclusion of information about the factors that affect the competitiveness and economic growth. The WEF bases its competitiveness analysis on the Global Competitiveness Index (GCI), which includes both microeconomic and macroeconomic bases of national competitiveness. The GCI starts from the premise that competitiveness is a complex phenomenon, influenced by many factors, which are grouped into 12 pillars of competitiveness (institutions, infrastructure, macroeconomic stability, health and primary education, higher education and training, goods market efficiency, labour market efficiency, financial market efficiency, technological readiness, market size, business sophistication and innovation), organized into three stages of economy (factor-driven, efficiency-driven and innovation-driven). The significance of individual groups of competitiveness pillars depends on the stage of country development, while for middle developed countries (including transition economies), besides the basic factors, efficiency factors are of great importance.

The World Bank

In addition to the World Economic Forum, the World Bank Announces Reports on Ease of doing business, which aims to rank countries according to the quality of the business environment as determinant of competitiveness. The World Bank database of key competitiveness indicators is a collection of indicators that assess economic performance and the environment for competitive business development in 185 countries. The value of a competitiveness index depends on the rigour of the underlying analytical framework and the methodology for making the rankings. Ease of doing business index methodology is suitable for simple and easily adaptable to different economic purposes. However, it is deficient in covering some important topics. According to the report for the Ease of Doing Business for 2013, Macedonia was ranked 23th out of 185 countries, followed by Montenegro in 51st place, Bulgaria in 66th place, Romania in 72nd place, Albania in 85th place, Serbia in 86th place and Bosnia and Herzegovina in 126th place.

The Heritage Foundation

The Heritage Foundation methodology indicates that: the country with the greatest economic freedom has a higher rate of economic growth and prosperity than countries with less economic freedom. The Index of Economic Freedom represents an average of ten individual freedoms: business freedom, trade freedom, monetary freedom, government spending, fiscal freedom, property rights, investment freedom, financial freedom, freedom from corruption and labor freedom. According to the methodology that encompasses measurements of the degree of freedom in ten relevant fields among 177 economies for 2013, Macedonia was ranked 43rd out of 177 countries, which ranks it among “mostly free countries.” Albania ranks below Macedonia, which is 58th, Romania at number 59, Bulgaria at 60, Montenegro at 70 and Serbia at 94. Only Bosnia and Herzegovina is ranked worse, at number 103.

European Bank for Reconstruction and Development

The EBRD report publishes indicators that show a country’s transition progress, and allows comparison across countries. Nine transition indicators encompass four main elements of a market economy: enterprises (large-scale privatization, small-scale privatization and governance and enterprise restructuring), markets and trade (price liberalization, trade and foreign exchange system and competition policy), financial institutions (banking reform and interest rate liberalization and securities markets and non-bank financial institutions) and infrastructure (overall infrastructure reform). Indicators range between 1 and 4+, where 1 represents small or non-existent changes in transition, while 4+ represents the standards of developed market countries.

COMPARATIVE ANALYSIS OF KEY COMPETITIVENESS INDICATORS OBTAINED BY THE APPLICATION OF DIFFERENT METHODOLOGIES IN SELECTED TRANSITION ECONOMIES

Key competitiveness indicators obtained by the application of different methodological approaches that effect a better comprehension of the competitiveness of selected transition economies (Albania, Bosnia and Herzegovina, Montenegro, Macedonia, Serbia, Romania and Bulgaria) with selected post-transition economies (Croatia, Slovenia, Estonia, Latvia, Lithuania and Hungary) were analyzed. The reason for comparing the selected transition economies with post-transition economies stems from the similarity of developmental assumptions and the way of economic development. A comparative analysis of key competitiveness indicators in selected transition economies is based on a comparison of results obtained by the application of different methodological approaches, the valorization of their advantages and shortcomings and the determined statistical correlation between certain countries’ positions regarding different competitiveness surveys and statistical indicators. On the basis of the said methodological approaches of different international institutions, a comparative analysis of competitiveness indices

was performed, on the basis of an analysis of secondary data and Spearman's correlation coefficient. In the analysis shown in table 1, which compares the rankings of transition economies and selected post-transition economies according to different competitiveness surveys for 2013, the best ranked countries are the post-transition countries.

Table 1: Comparison of the rankings of transition economies and the former successful transition economies according to different competitiveness surveys for 2013.

	Rank GCI (148) 2013	Rank DB (185) 2013	Rank HF (177) 2013	Rank EBRD (25) 2013
Albania	12	11	6	7
B&H	11	13	13	13
Montenegro	7	6	9	12
Macedonia	8	2	3	6
Serbia	13	12	12	10
Romania	10	9	7	8
Bulgaria	4	8	8	9
Croatia	9	10	11	1
Slovenia	5	5	10	3
Estonia	1	1	1	11
Latvia	3	3	5	4
Lithuania	2	4	2	2
Hungary	6	7	4	5

Source: Calculated on the basis of data published by the World Economic Forum, World Bank, Heritage Foundation and the European Bank for Reconstruction and Development.

According to GCI for 2013, the best ranked economies are the post-transition countries (Estonia, Lithuania and Latvia). Compared to them, B&H, Serbia and Albania are the worst ranked countries with economies in transition. The best ranked countries according to DB indicators for 2013 are: Estonia, Macedonia and Latvia. Compared to them, B&H and Serbia are the worst ranked. According to HF indices for 2013, the best ranked country is Estonia while B&H is the worst ranked. The best ranked country is Croatia, according to EBRD indices for 2013, while B&H is the worst ranked. To illustrate the relationship among research and "hard" statistical data, see table 2.

Table 2: Comparison of the rankings of selected transition countries and the post-transition countries according to key macroeconomic indicators for 2013

	GDP PPP per capita	FDI INFLOW	EXPORT
Albania	13	8	13
B&H	12	11	12
Montenegro	9	10	8
Macedonia	10	12	7
Serbia	11	3	11
Romania	8	2	10
Bulgaria	7	4	5
Croatia	6	6	9
Slovenia	1	9	4
Estonia	3	13	2
Latvia	5	5	6
Lithuania	2	7	3
Hungary	4	1	1

Source: Calculated on the basis of data published by the World Bank 2013.

It analyzes the statistical indicators comparing ranks of selected transition countries and selected post-transition countries according to certain macroeconomic indicators for 2013, which include GDP PPP per capita rankings, inflow of foreign direct investment and the share of exports in GDP for 2013. According to GDP PPP per capita, the best ranked countries are the post-transition countries (Slovenia, Lithuania, Estonia, Hungary, Latvia and Croatia). Compared to them, Albania, B&H and Serbia are the worst ranked. The best ranked country by inflow of foreign direct investment (FDI) is Hungary, while Estonia is the worst ranked. Hungary is the best ranked country according to the share of exports in GDP for 2013, while Albania is the worst ranked. According to the key macroeconomic indicators for 2013, the best ranked countries are Hungary, Poland, Lithuania and Slovenia. Compared to them, B&H, Albania and Macedonia are the worst ranked. Further analysis will show the significance of the characteristics of the perception of research studies, which are largely used to construct the index of competitiveness of various international institutions, for the determination of a relatively poor position of selected transition economies towards certain aspects of competitiveness. The interdependence of rankings according to different studies and hard statistical indicators is shown in table 3, as represented by Spearman's rank correlation coefficient. The data was processed via the SPSS statistical software package.

Table 3: Spearman's correlation coefficient for analyzed competitiveness indicators for the presented transition economies

	GCI	DB	HF	EBRD	GDP PPP pc	FDI	EXPORT
GCI	1,000	,819**	,637*	,269	,824**	-,176	,874**
DB	,819**	1,000	,775**	,264	,632*	-,374	,742**
HF	,637*	,775**	1,000	,242	,418	-,143	,621*
EBRD	,269	,264	,242	1,000	,555*	,280	,335
GDP PPP pc	,824**	,632*	,418	,555*	1,000	,071	,868**
FDI	-,176	-,374	-,143	,280	,071	1,000	,022
EXPORT	,874**	,742**	,621*	,335	,868**	,022	1,000

Source: Author's own calculations.

Several conclusions can be drawn from the analysis of Spearman's rank correlation coefficient for the presented countries' analyzed competitiveness indicators:

- The interdependence of rankings from different surveys is statistically significant for all indicator pairs.
- There is a statistically significant relationship between the GCI and Export expressed through a strong positive correlation (0,874).
- Rank interdependence is especially pronounced between GDP PPP per capita and Export, with a correlation coefficient of 0,868, which represents a very strong positive correlation between these indicators.
- Rank interdependence is especially pronounced between macroeconomic indicators of GDP PPP per capita and the GCI, with a correlation coefficient of 0,824, which represents a very strong positive correlation between these indicators.
- Rank interdependence is pronounced between DB indices and the GCI, with a correlation coefficient of 0,819, which represents a strong positive correlation between these indicators.
- There is a statistically significant relationship between the index HF and DB indices expressed through a strong positive correlation (0,775).
- The level of correlation between the rankings based on FDI flows and different indices of competitiveness is meaningless.

CONCLUSION

The comparative analysis of key competitiveness indicators has suggested a variety of starting points to tackle the deficiencies and limitations to future economic growth in selected transition economies. Competitive position of selected transition economies is measured from the perspective of different methodological approaches. Concluding remarks with high certainty point to the

conclusion that methodological approach of the World Economic Forum capture the progress in transition economies in the most reliable way. The level of competitiveness of selected transition and post-transition countries analyzed in terms of different methodologies, indicates that methodological approach of WEF highly correlates with the actual level of economic growth, evidenced by a very high correlation (0,824) between the WEF indices and the GDP PPP per capita. Positive correlation between macroeconomic indicators of Export and the GCI, with a correlation coefficient of 0,874, has suggested that improving export performance requires enhancing competitiveness. Positive correlation between DB indices and the GCI, with a correlation coefficient of 0,819, has suggested that achieving higher level of competitiveness depends on business conditions. The creation of a highly competitive economy is a complex and continuing task for each country that wishes to develop and, in that context, the role of the state in creating an business environment that will stimulate competitiveness is very important. Therefore, for selected transition economies, it is necessary to perform more active comparisons with the best practices of former succesfull transition economies and to be oriented towards raising the level of company's innovation and productivity, as well as recognizing the potential and the development of one's own competitive strengths. Defining priorities in the transition strategy, in order to increase the competitiveness of transition economies, should be the main task of economic policy/decision makers. Economic policy/decision makers should focus on increasing the competitiveness of the domestic market and consistent competition policy, along with human resources, advanced technology, innovation and knowledge can have a positive influence on competitiveness, enhancement of exports and achievement of faster economic growth in selected transition economies.

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THE EMPLOYMENT STRATEGY: EUROPEAN AND SERBIAN PERSPECTIVE

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ABSTRACT

EU social law comprises a broad range of legislation, from social and employment law to health and safety law, but it also overlaps with the EU's single market. Well-targeted and effective regulation creates the necessary conditions for sustainable economic growth and employment, providing employers and employees alike with a level playing field on which to compete and create wealth. Ideally, where social law does impose burdens on business, these costs are transferred as benefits to employees, resulting in better conditions or pay, which may be viewed as wider benefits to society. Serbia is currently faced with the unenviable task of trying to cut a large budget deficit, while also trying to create jobs and growth. Serbian National Employment Strategy 2020 is based on the European Strategy 2020 which is focused on smart, sustainable and inclusive growth. In this paper, we examine the nature and influence of the EU social policy and look at the potential ways and perspectives by which a Serbian Government could improve and manage its national employment surroundings and make it more competitive, stable and safer.

Key words: social policy, employment strategy, EU 2020, Serbia, Europe

INTRODUCTION

This paper is a descriptive overview of the all crucial facts about the European social policy in general, Europe 2020 and Serbian National Employment Strategy. It gives us the opportunity to look and understand more deeply the importance of all social needs of a single country or the member countries, to learn more about the measures, techniques and perspectives that one strategy can offer as a solution to the macroeconomic environment problems. The first part of this paper is focused on European Social Policy in general. It is more about the roots of the important idea how to regulate all social needs in member states within EU. It also defines very significant terms and concepts which are in the service of harmonization, implementation or just indicates the directions important for the management strategy. The second part is about the Europe 2020. Europe 2020 is the European Union's ten-year growth strategy. To render this more tangible, five key targets have been set for the EU to achieve by the end of the decade. These cover employment; education; research and innovation; social inclusion and poverty reduction; and climate/energy. The strategy also includes seven "flagship initiatives" providing a framework through which the EU and national authorities mutually reinforce their efforts in areas supporting the Europe 2020 priorities such as innovation, the digital economy, employment, youth, industrial policy, poverty, and resource efficiency. Third part is facing with the most important information related to Serbian National Employment Strategy in general. That information is not just based on quantitative or qualitative data but on potential ways and perspectives that create competitive, stable, safer market environment and labour surroundings of great significance to the sustainable economic development of the country. The key aspects of the strategy are: Employment Strategy in relation to the European Framework 2010-2020, characteristics of the labour market, strategic directions and priorities, etc. Well-targeted and effective regulations are a strategic way for national and supranational social issues.

EUROPEAN SOCIAL POLICY

Social Policy might broadly be understood as encompassing programs which are aimed at securing or enhancing the wellbeing and the life chances of individuals. Important areas of social policy are the welfare state, social security, unemployment insurance, environmental policy, pensions, health care, social housing, social care, child protection, social exclusion, education policy, crime and criminal justice. The term 'social policy' can also refer to policies which govern human behavior. For example, in the U.S. the term social policy may be used to refer to abortion and the regulation of its practice, euthanasia, homosexuality, the rules surrounding issues of marriage, divorce, adoption, the legal status of recreational drugs, and the legal status of prostitution. Social Policy is also an academic discipline focusing on the systematic evaluation of societies' responses to social need. It was developed in the early-to-mid part of the 20th century as a complement to social work studies. London School of Economics professor Richard Titmuss considered to have established Social Policy (or Social Administration) as an academic subject.

Social Policy is designed to reflect on the ways in which different societies have developed ways of meeting these needs, or have failed to do so. Some societies rely on informal or family institutions, some on private markets and individual actions, some on governmental actions through what is often termed the welfare state. Social policy in the 21st century is complex and in each state it is subject to local, national and supranational political influence. For example, membership of the European Union is conditional on member states' adherence to the Social Chapter of European Union law and other international laws.

The development of European social integration has predominantly been based on economic rationales. The ambition to create a single European market with free movement of goods, investment, services, and labour has been a central driving force since the 1950s, and was cemented by the adoption of a single currency in 1999. But as a corollary of economic integration some social policy intervention was all but inevitable. For example, free movement of labour would be difficult to reconcile with a lack of recognition of pension rights and entitlement to benefits for citizens who work in member countries other than their own. Most commentators regard the EU influence over national social policy-making as limited— and also remain sceptical about the prospects of a harmonization of national social policy regimes at EU level as remote (Baldock et al., 2007).

In short, while the EU influence over social policy matters has remained limited in the sense that it continues to be restricted to areas which are fairly close to the labour market, an increasing EU influence in these areas can be observed. At the same time, while attempts of directly harmonizing national policies stalled in the early 1990s, other less legalistic forms of influencing policy-making have been pursued since then, particularly in areas such as the fight against social exclusion (Ferrera et al., 2002) or the coordination of national employment policies (Goetschy, 2001). Fixing common objectives, encouraging co-operation between member states, benchmarking, promoting best practice, conducting evaluations, requesting regular progress reports, and issuing recommendations have now become principal forms of policy intervention as part of the so-called open method of co-ordination, (Zeitlin et al., 2005). The open method of co-ordination (OMC) is form of policy co-ordination at the EU level. Agreed upon at the Lisbon Summit of March 2000, the OMC has become a means of spreading best practice within the EU and thereby achieving greater convergence. Its mechanisms include fixing guidelines at the EU level and translating them into national and regional policies by setting specific targets, adopting quantitative and qualitative indicators and benchmarks, and monitoring and evaluating policy development. The OMC has become a central tool for the European Employment Strategy and the EU 'social inclusion' process.

EUROPE 2020

Since the mid-1990s a growing EU involvement in employment policy can be observed and later formalized as the European Employment Strategy (EES). The origins of this strategy go back to the European Council in Essen in 1994 and the Amsterdam Treaty in 1997 which stressed that employment was a 'matter of common concern' and the need for co-ordination of employment policies across member states (Goetschy, 2001). At the Luxembourg Job Summit, which was held in the same year, it was decided that the European Council was to draft annual Employment Guidelines to be translated into National Action Plans for Employment (NAPs) to be submitted by member states. The plans are then analyzed jointly by the Council and the Commission and the results presented in a Joint Employment Report. The findings of this Report provide the basis for the reshaping of future guidelines and country-specific recommendations for Member States' employment policies. To achieve a sustainable future, we must already look beyond the short term. Europe needs to get back on track. Then it must stay on track. That is the purpose of Europe 2020. It's about more jobs and better lives. It shows how Europe has the capability to deliver smart, sustainable and inclusive growth, to find the path to create new jobs and to offer a sense of direction to our societies (President Barroso on Europe 2020, European Commission, Brussels, 2010).

In general the European Employment Strategy seeks to create more and better jobs throughout the EU. It takes its inspiration from the Europe 2020 growth strategy. The European employment strategy provides a framework - the open method of co-ordination (See Chapter 1.) for EU countries to share information, discuss and coordinate their employment policies. It is based in the annual growth survey (AGS) which sets out the EU priorities for the coming year to boost growth and job creation and opens the yearly European semester, which promotes closer coordination by national governments of their economic and fiscal policies. Each year this process which is supported by the work of the employment committee involves the following steps: 1. Employment guidelines – common priorities and targets for employment policies, proposed by Commission, agreed by national governments, adopted by the EU Council. 2. Joint Employment Report – based on (a) assessment of employment situation in Europe, (b) implementation of the Employment Guidelines, (c) examination of draft National Reform Programs by European Committee, part of the AGS, published by the Commission, adopted by the EU Council. 3. National Reform Programs (NRPS) – submitted by national governments, analyzed by Commission of compliance with Europe 2020. And last but not least 4. Country specific recommendations – issued by Commission, based on assessment of the NRPS. Europe 2020 puts forward three mutually reinforcing priorities: 1) Smart growth: developing an economy based on knowledge and innovation. 2) Sustainable growth: promoting a more resource efficient, greener and more competitive economy. 3) Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion (European Commission, 2010).

The EU needs to define where it wants to be by 2020. To this end, the Commission proposes the following EU headline targets: 75 % of the population aged 20-64 should be employed (See Table 1.); 3% of the EU's GDP should be invested in R&D; the "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right); the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree; 20 million less people should be at risk of poverty. The targets are representative of the three priorities of smart, sustainable and inclusive growth but they are not exhaustive. A wide range of actions at national, EU and international levels will be necessary to underpin them. The Commission is putting forward seven flagship initiatives to catalyze progress under each priority theme. The flagships are:

1. "Innovation Union" (to improve framework conditions and access to finance for research and innovation so as to ensure that innovative ideas can be turned into products and services that create growth and jobs),

2. "Youth on the move" (to enhance the performance of education systems and to facilitate the entry of young people to the labour market; The aim is to enhance the performance and international attractiveness of Europe's higher education institutions and raise the overall quality of all levels of education and training in the EU, combining both excellence and equity, by promoting student mobility and trainees' mobility, and improve the employment situation of young people),
3. "A digital agenda for Europe" (to speed up the roll-out of high-speed internet and reap the benefits of a digital single market for households and firms),
4. "Resource efficient Europe" (to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernize our transport sector and promote energy efficiency),
5. "An industrial policy for the globalization era" (to improve the business environment, notably for SMEs, and to support the development of a strong and sustainable industrial base able to compete globally),
6. "An agenda for new skills and jobs" (to modernize labour markets and empower people by developing their skills throughout the lifecycle with a view to increase labour participation and better match labour supply and demand, including through labour mobility). Employment: Due to demographic change, our workforce is about to shrink. Only two-thirds of our working age population is currently employed, compared to over 70% in the US and Japan. The employment rate of women and older workers is particularly low. Young people have been severely hit by the crisis, with an unemployment rate over 21%. There is a strong risk that people away or poorly attached to the world of work lose ground from the labor market; Skills: About 80 million people have low or basic skills, but lifelong learning benefits mostly the more educated. By the year 2020, 16 million more jobs will require high qualifications, while the demand for low skills will drop by 12 million jobs. Achieving longer working lives will also require the possibility to acquire and develop new skills throughout the lifetime.
7. "European platform against poverty" (to ensure social and territorial cohesion such that the benefits of growth and jobs are widely shared and people experiencing poverty and social exclusion are enabled to live in dignity and take an active part in society).

EU-level instruments, notably the single market, financial levers and external policy tools, will be fully mobilized to tackle bottlenecks and deliver the Europe 2020 goals (European Commission, 2010). The Europe 2020 strategy will be established institutionally in a small set of integrated 'Europe 2020' guidelines (integrating employment and broad economic policy guidelines). The recommendations under the country surveillance would address issues with significant macroeconomic and public finance implications, whereas the recommendations under the thematic approach would provide detailed advice on micro-economic and employment challenges.

SERBIAN EMPLOYMENT STRATEGY

The aim of the Serbian National Employment Strategy for the period 2011 - 2020th is to support the development of the Republic of Serbia whereby the central place is occupied by the employment and the reduction of relative poverty. In addition, the Employment Strategy focuses on those sectors and priorities, which include support for pro-investment and export-oriented industry that has been recognized in the new post-crisis model of economic growth and development. Previous experience in the implementation of the EU Lisbon employment strategy to 2010th year, and a new strategic framework for growth and employment in the EU - Strategy "Europe 2020" are necessary to coordinate a national strategic objectives in the area of growth and employment with European and define the basic quantitative goals to 2020th the of which would be achieved by

completing convergence, and reduced the difference between the indicators of the labour market in the Republic of Serbia and the EU. The objectives of the "Europe 2020" do not mean, however, additional criteria for EU membership, but they will certainly affect objectives in defining the relationship to the state in the process of European integration. This means that all the countries in the process of integration should be difficult the adoption of goals and to develop social policies that would enable them to follow up the EU. In projections, employment is taken as the central size of the labour market (See also Table 1). For example, the employment rate of working age population reached its absolute minimum in year 2010, and then returned to a level of over 50% only 2013th when starting a stable and strong growth, which will be further accelerated by reducing the population of working age. Employment growth will come primarily because of the disproportion between the small input cohorts (generations that will have 15 years in the next decade) and large output baby boom cohorts (generations that will have 65 years in the next decade). Thanks to the synergy employment growth and the reduction of the working-age employment rate will exceed the limit of 60% and reach 61.4% in the last year for which projections are given

Two important implicit assumptions in the projections of employment in the next decade, which should bring radical reversal of current trends, are:

1. Completion of the transition process of restructuring of the labour market and
2. Transition to the new model of development that involves greater reliance on real sources of growth. Challenges for labour market policies are: demography, labour migration, regional differences, educational differences, institutional challenges, dualism, etc.

Strategic directions and priorities of the Serbian National Employment Strategy are focused on:

1. Encouraging employment in less developed regions and on development of regional and local labour market. The funds to finance this type of investment Serbia found in pre-accession funds like IPA Fund.
2. The demographic decline of the working age population that will accelerate over the next decade will require a more efficient education system and increase the knowledge and skills of the labour forces especially those who are just entering the job market. The emphasis is on lifelong learning and retraining the existing workforce.
3. Constant improvement of human capital and greater social inclusion which comprises improving the quality of the workforce through education and training and social inclusion of individuals and groups that are in a state of social exclusion, has to contribute economic and social development of the Republic of Serbia.

Table 1: The target employment rate for the age 15-64 and 20-64, a comparison of the EU and Republic of Serbia

Objectives	EU		RS		Divergence	
	2010.	2020.	2010.	2020.	2010.	2020.
Employment Rate (15-64)	66	73	48	61	-18	-12
Employment Rate (20-64)	68	75	52	66	-16	-9

Source: The Foundation for the Advancement of Economics (FREN), 2010

The skills and knowledge that are mentioned are related to trouble shooting and analytical skills, communication skills and team work manage and operate their own tasks, language skills and knowledge of working with digital technology, a sense of initiative and entrepreneurship. Furthermore, constant improvement of institutions and labour market development, reducing duality market and so on. Finally, goals and action plans that are aimed at increasing in employment, encouraging employment in less developed regions, the development of regional and local employment policies, constant improvement of the quality of human capital, the development

of the career leader learning and counselling, increase the competences of the unemployed through acquiring knowledge and skills through establishing a system of short training, Recognition of knowledge and skills acquired through informal learning, development of institutional capacity, the expansion of active labour market programs, the increase in formal employment and reduce informal employment, mutual respect for the rights and obligations of employees and employers with the introduction of the concept of flexible safety, equal opportunities for all in the labour market. Monitoring the employment strategy includes regular checking of resources, and results effects of the measures provided in this area, and will be based on a system of data collection and analysis information regarding the performance indicators.

CONCLUSION

The influence of EU policy and EU regulations, recommendations, framework, directives linked to the Employment Strategy, program Europe 2020 and the Serbian National Employment Strategy is significant. The EU is a global player and takes its international responsibilities seriously. It has been developing a real partnership with developing countries to eradicate poverty, to promote growth and to fulfil the Millennium Development Goals (MDGs) (European Commission, 2010). In the time to come and that is characterized by uncertainty, it is clear that the emphasis is on regulation and social protection of society needs. Working together towards these objectives is essential. Exchange of good practices, benchmarking and networking has proven another useful tool to forge ownership and dynamism around the need for reform. All national, regional and local authorities should implement the partnership, closely associating parliaments, as well as social partners and representatives of civil society, contributing to the elaboration of national reform programs as well as to its implementation. Well-targeted and effective regulations are a strategic way for national and supranational social issues.

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SME's SOURCES OF FUNDING AND THEIR CHARACTERISTICS

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ABSTRACT

SME sector consists of large number of smaller companies. Their number contributes significantly in overall Gross Domestic Product as well as in significant workforce employment. Characteristics of adaptability and flexibility contribute to their ability to adjust to market conditions in order to survive. Innovation and entrepreneurship are important factors of their competitiveness. On the other hand, there is chronic lack of capital, and that limits SME's in their growth and development, because of low level of investment activities and insufficient investment in research and development. Funding is necessary in order to produce some goods and services that originated in entrepreneurial idea. SME's access to funding is limited and aim in this work is analyze potential sources of funding and appropriate usage of available funds. Various scientific methods will be used like abstraction and concretization method, dialectical approach, deduction method and description. Theoretical analysis partially relies on knowledge that originates from domestic and international scientific and professional literature as well as on applied institutional solutions in Republic of Serbia and European Union.

Keywords: Small and Medium Enterprises (SME's), Financing, Sources of Financing, Entrepreneurship, Competitiveness

INTRODUCTION

SME's are significant for economic system. Aside economic importance, there is social importance that is reflecting in fostering innovativeness and creativity, including entrepreneurial spirit development. Flexibility and competitiveness are among SME's key features. Nevertheless, sizes, organizational and managerial structure of individual SME are often the cause for their vulnerability. Among SME's, on annual level, there is significant portion of newly established and extinguished companies. Financial institutions regard them more risky than large systems or retail clients. Consequently, access to funds represents a challenge to SME management. Financial manager must have at disposal proper analytical tools in order to be able to assess situation, and on the base of analysis, to make economically rational decisions, which are in function of current and strategic goals fulfillment (Đurić, 2007).

CLASSIFICATION OF POTENTIAL FUNDING SOURCES

There are various approaches for classification of potential funding sources. Usually, all of them could be classified as:

- Short Term Funds,
- Long Term Funds.

Short term funds usually have maturity date up to one year. Most common short term funds are: short term loans, accounts payable, short term borrowings, short term securities and similar.

Long term funds are very important since they have influence on long term business stability. They mirror capital structure, which consists of:

- Borrowed funds,
- Own funds. (Erić et al., 2012)

Borrowed funds are external source of funding, usually long term loans or long term Debt Securities. Usage of borrowed funds can lead to loss of financial flexibility. (Đorđević et al., 2010) Own funds originate from: owners funds, partner's share, issue of shares etc. Further, they can be decomposed to internal and external own assets. Internal assets originate from generated profit from previous periods. According to owners' decision, profit can be distributed as dividend in case of joint-stock company or as payout to founder in case of Limited Liability Company. Alternatively, profit can be reinvested in form of retained earnings. External own assets could originate from collected additional capital in case of Joint-Stock Companies or by inclusion of new co-owners in case of Limited Liability Company. In both cases, dispersion of ownership is present including a new structure of voting and managerial power. Capital Market in Serbia is quite underdeveloped, because of that, collection of external own assets is rarely the case. In case of SME's, issue of shares is not common since it is obligatory to be registered as Joint-Stock Company. Company is eligible to appear on Capital Market only in case of this legal form, in order to collect additional capital. Transformation from Limited Liability Company to Joint-Stock Company assumes that certain (often demanding) accounting and financial, legal and organizational aspects must be fulfilled.

FINANCING PURPOSES AND INFLUENCE ON BALANCE STRUCTURE

Engagement of financial funds has its own aim, to increase business quality. In terms of purpose, on the Asset side for example, there could be: inventories financing (in form of working capital or permanent working capital), prepayments to suppliers, purchase of fixed assets, financing of investment projects etc. On the Liabilities side, engagement of financial assets is done in order to optimize sources of funding (in terms of cost and maturity) and increase of capital (which has its own financial or regulatory purpose).

During decision making, it is important to take in to consideration potential change of Balance structure and influence on financial equilibrium i.e. relation between Assets and sources of funds in Liabilities. It is important that engaged assets (in terms of volume and maturity) correspond to volume and maturity of funding sources.

Financial equilibrium analysis reduces to two analyses:

- Long Term Financial Equilibrium,
- Short Term Financial Equilibrium.

Long Term Financial Equilibrium includes, from the one side long term engaged (immobilized) assets, on the other long term sources of assets. Short Term Financial Equilibrium includes from the one side short term engaged (immobilized) assets, on the other short term sources of assets (liabilities due and liabilities with short term maturity). (Veselinović, Vunjak, 2012)

Simplified example can cover explanation of influence of financial assets on the Balance structure:

- Funds for Working Capital financing,
- Funds for Fixed Assets financing.

For Working Capital it is characteristic that period of their immobilization is (usually shorter than one year). Their feature is changing from goods to cash many times during one year and this is expressed with Turnover Ratio. Fixed Assets are more durable and their utility is perennial. Financing period of Fixed Assets is short in comparison with term of their usage (usually more than one year).

If we observe interdependence between short term and long term financial equilibrium arises that volume and period of short term immobilized assets should be equal to volume and period of short term sources of funds. Analogously, volume and period of long term immobilized assets should be equal to volume and period of long term sources of funds. Working Capital should be financed with short term funds while Fixed Assets should be financed with long term funds. In practice it is important to strive for short term and long term financial equilibrium.

In case of certain balance structure where short term immobilized assets are financed partially from short term funds and partially from long term funds, condition for continuous liquidity is fulfilled. Liquidity Ratio represents ratio of short term immobilized assets and short term funds and should be > 1 . High level of liquidity ratio does not necessary indicate high quality of financial management. That could indicate that there are cash assets that are not engaged in business activities, possible accounts receivable with longer terms for payment, non-marketable or seasonal inventories etc.

Situation where long term immobilized assets have been financed from short term funds i.e. long term immobilized assets are bigger than long term funds, liquidity risk is present. This condition is often cause of illiquidity, company cannot fulfill current financial obligations, moreover certain risks emerge like: reputational risk, future creditworthiness, operational risk, legal risk etc.

As a rule, long term funds are limited for SME's. Own funds are restricted with lower possibility of retained earnings accumulation (especially in early stages of life cycle) and limited funds that originate from owner's private savings. Institutional rising of capital via Stock Exchange Market is not common (a large number of SME's do not fulfill legal requirements). Involvement of new co-owners includes other aspects aside pure financial (motivation of potential partners, existing „one man show“ logic and many more). Possibility of long term funds borrowing from Banks and other Financial Institutions is reduced since SME's are considered bearing higher risk levels.

Considering constrains related to long term financing sources, it becomes obvious that there is real foundation for presence of high liquidity risk. Business decisions of SME owners that are brought with intention to encourage growth and development often imply long-term nature investment activities. In the absence of long term funds sources, it is easy to make a strategic mistake and finance long-term investments with short-term funds.

INFLUENCE OF COSTS AND STRUCTURE OF FINANCING SOURCES

Each financing source bears certain price, regardless they are long-term or short-term, own or borrowed. For company, it represents specific cost category either long-term or short-term sources of financing are considered.

In case of short-term financing, it is desirable that financing costs are covered with positive effects of these engaged assets. As mentioned above, short term assets shouldn't be financed entirely with short-term funds in order to achieve proper liquidity management. Portion of short-term assets that are financed from long-term sources is Net Working Capital and if it has negative value, difficulties in financial management are inevitable.

Long-term funding costs are more complex than short-term and they are known as Cost of Capital. Costs of borrowed funds are recognized through interested rates for loans or another debt instruments. Costs of own funds are more complex in terms of value determination. These costs are tied to dividend amount i.e. Required Rate of Return of the business owner. They invest capital in to the business with aim to achieve higher return in comparison with some other alternative investment, e.g. if interest rate for savings in Bank is 5%, Rate of Return in some business lower than 5% should indicate that it would be better to deposit money into the Bank. According to this, following logic is obvious. As a rule, borrowed funds have lower costs but they are limited with borrower's creditworthiness and bear significant risks in case of repayment difficulties. It is complex decision about which sources of

financing should be used. For each company, sensitive issue is to define optimal capital structure (Damodaran, 2010). It is structure where Costs of Capital are lowest possible.

In connection with capital structure, important value is Weighted Average Cost of Capital (further WACC). To determine WACC following is necessary to know: financing costs from own and external sources as well as their proportion in overall capital structure. Following equation is used in order to determine WACC:

$$WACC = (P_d \times D) + (P_e \times E)$$

Where:

- P_d – Portion of debt in total long-term financing sources
- D – Costs of borrowed funds
- P_e – Portion of own funds in total long-term financing sources
- E – Costs of own funds

Cost of Capital is crucial value for investment decisions. Additionally, Capital Budgeting is important, where numerous methods for future incomes and expenses are applied; all of them are reduced to present value by discounting. Two most widely applied techniques are:

- Net Present Value,
- Internal Rate of Return.

While Net Present Value is absolute size value, Internal Rate of Return is relative size value and represents discount rate which equates present value of all future revenues originating from certain investment project with present value of all expenditures associated to that project. Investment project should be adopted if:

$$IRR > WACC$$

In other words, revenues generated from investment project will be sufficient to cover weighted cost of capital.

Wrong investment decisions are often made because Internal Rate of Return is considered acceptable if value is positive. Those are situations where importance of yield originated from own assets is neglected. In case of SME's, risk of making wrong investment decision is high. Value and portion of own funds in WACC are significant while borrowed funds, if not subsidized, have high interest rates.

FINANCING SOURCES AND THEIR CHARACTERISTICS

Financing sources could be classified into four basic groups and within these groups, following characteristic forms:

- a) Own funds of business owner:
 - Entrepreneur's self-financing,
 - Funds granted by family members,
 - Profit reinvestment.
- b) Borrowed funds:
 - Loans,
 - Deferred payments to suppliers,
 - Prepayments received,
 - Private borrowings,
 - Emission of securities as debt instruments.
- c) National and international support programmes:
 - Specific credit lines,
 - Interest rate subsidy,
 - Grants.

- d) New alternative financing forms:
- Venture Capital Firms,
 - Business Angels,
 - Private Equity Funds,
 - Initial Public Offer.

Fifth group could be issue of shares as financing source and collection of additional capital, but because of institutional requirements in Serbia, this way of financing is not common to SME's (Erić et al., 2012).

Own and borrowed funds are traditional sources for SME funding. Within each economic system, SME sector is recognized as strategically important, hence various support programmes emerge. For SME management it is important to be informed about availability of these support programmes and skilled enough to fulfill preconditions in order to qualify for financial support. New alternative financing forms are different in comparison with all other financing sources. Investors come from private sector only when they recognize possibility of high profit rates generation. These investments imply participation in decision making and ownership. Access to alternative financing forms is not regular i.e. it is necessary that private investors recognize their benefit from these kind of ventures.

CONCLUSION

Proper financial management is a precondition for sound management of SME's. Basic financial rules are applied and valid for SME's, as well as for all types of companies. Some differences are present, especially when it comes to funds availability, price and maturity. Aim is to obtain proper funds from available sources. Financing is important in a given moment in time i.e. when there is such business decision, where financing can support implementation of planned activities. Price of financing should be lowest possible but in the same time all others elements must be considered. Maturity should be adjusted properly in order to meet obligations in future. Type of financial instrument depends on business venture characteristic e.g. for investment needs - possibility of grace period, short-term loans for working capital purchased on regular basis – short-term loan with regular installments, short-term loans for working capital purchased on irregular basis – revolving loan etc.

Competitiveness of particular SME can be improved in case of proper financing of good business decision, which lead into further growth and development of company. Financing activity contributes to change of financial indicators and balance structure, thus certain risks occur. In order to bring rational decisions, potential risks should be recognized and taken into account. Higher risks should be associated with higher potential benefits.

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Session F: IT MANAGEMENT

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OVERVIEW OF METHODS AND TECHNIQUES FOR EVALUATING HOSPITAL INFORMATION SYSTEM

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ABSTRACT

Although Information and Communications Technology and Hospital Information System in healthcare have existed for more than three decades, methods to evaluate outputs and outcomes of the use of HIS is still a challenge for decision makers, as well as to those who want to measure the effects of ICT in healthcare settings. In our research we reviewed methods for the evaluation of a Hospital Information System. We searched through standard internet search engines such as Google and Yahoo and a social networking site for scientists and researchers ResearchGate in order to analyze experience related to the methodology of evaluation of the HIS-a. There are several methods which are used more often. We concluded that there is no standardized and structured method or software package for HIS evaluation, mostly because of software and hardware specifications and differences in organizational structure. This finding implies that each hospital should develop its own method for HIS evaluation, using and modifying some of the existing approaches and methods or create new ones.

Keywords: Hospital Information System, evaluation, methods

INTRODUCTION

The use of information and communication technologies (ICT) is to enable the change in the system of health care that will improve public health, reduce costs, save time and money, and provide information for technical, scientific, administrative, accounting and management use (Wang et al., 2006; Kai et al., 2012; Bates et al., 2001; Bates et al., 2003). This approach allows the preparation of accurate plans and strategy, which prevents arbitrariness and reduces the scope for abuse.

One of the key forms of implementation of ICT in the hospital is a hospital information system (HIS), which by definition is a computerized system designed to meet the needs of hospitals in relation to the flow and processing of relevant information, including patient data, accounts, finance, personnel, pharmacy services, supply of drugs and consumables materials, inventory, diagnostic procedures, monitoring patients, as well as help in the diagnosis and decision-making in the management and decision-making in the hospital. The development of hospital information systems is inevitable as a response to the increasing demands for the improvement of medical care. Although most hospitals in Europe use some kind of information system, only a few hospitals have implemented a fully integrated and functional hospital information system (Roberto, 2010).

Implementation of hospital information system is a complex process and its successful implementation requires continuous education, monitoring, evaluation and analysis. The term evaluation describes a wide range of data-collection activities, designed to answer questions. In medicine, some of them are related to examining and reporting properties of a medical technology used in health care, such as safety, efficacy, feasibility, and indication for use, cost, and cost effectiveness, as well as social, economic, and ethical consequences, whether intended or

unintended (Shortliffe et al., 2006). Evaluation can be approached from various perspectives: objectivist versus subjectivist, formative versus summative, scientific versus pragmatic, and accountability, developmental and knowledge perspectives (Shahmoradi et al., 2007). To answer a clear question and thus support information management, the evaluation can comprise both quantitative (“measuring”) as well as qualitative (“exploring”) aspects.

The aim of this paper is to give an overview of the methods and techniques for HIS evaluation.

MATERIAL AND METHODS

We started our research with intention to examine the experiences of evaluating IS in hospitals worldwide that are similar to our hospital. Research was done through a standard web search engines such as Google, Yahoo and specialized social networks for researchers ResearchGate. Review of the literature on evaluation methodology was conducted. The following key phrases were used: hospital information system evaluation, hospital Information system usability testing, hospital information system functionality testing, assessing the hospital Information system and hospital Information system effectiveness.

FINDINGS

We found 12 technical papers or research articles from 12 countries related to objective of the study. From them, we selected four case studies from four countries that have documented in detail the method of system evaluation (Table 1).

Case one (Germany)

Results revealed low ergonomic quality of the evaluated system. The usability of a given software should be treated with respect to given context of use. Apart from the general low rating of the evaluated software, need for remedial action was identified especially for the group of physicians. The analysis of single items of the questionnaire gives some more concrete hints to weak-points of the evaluated software. This kind of systematic evaluation of Hospital Information Systems will support the clinical work of healthcare employees by adapting the software to user requirements, improving its functionality continuously and avoid errors and stress reactions as well as the costs associated herewith (Hamborg et al., 2004).

Case two (Turkey)

Study revealed that applied model for evaluation although very suitable for assessing the IT effectiveness of an organization can be more effectively applied in organizations if it is modified for the specific needs and characteristics of the observed organizations (Özkan et al., 2006).

Case three (Iran)

It is revealed that the evaluated HIS lacked a proper approach to error correction, presentation of appropriate data, and clear error messages. This can lead to situations where some bits of information may be lost. The errors which happen can easily be corrected and confirmed by users before the data are permanently deleted; however, when used inappropriately, systems do not give any warning. Moreover, not all data are sent back for correction before being processed (Dargahi et al., 2012).

Case four (Greece)

Study revealed that the use of information technology is, nowadays, very important and also that information technology is useless, if the users that daily interact with information systems are dissatisfied with their functionality and reject them (Prodromos et al., 2012).

Table 1: Review of selected methods for HIS evaluation

Country	Germany	Turkey	Iran	Greece
Year	2003	2006	2009	2012
Purpose	scientific research	scientific research	scientific research	scientific research
Where the evaluation was applied?	University Hospital of Heidelberg, Department of Internal Medicine, Germany	three organizations in Ankara region, Turkey	in 12 hospitals in Tehran, Iran. Four general hospitals belong to private section and eight of them were governmental.	4 state hospitals in Greece, randomly selected
Software examined	"IS-H*MED" release 4.63B by T-Systems, Austria. Software is based on the IS-H solution by SAP, Germany	outsourced software	IRU-HIS	unknown
Method/ technique	Iso Metrics based on international standard ISO 9241. Part 10.	Survey based on PB ISAM	Questionary based on Iso Metrics 9241-10. Error tolerance index of Iran's Hospital Information System (IRU-HIS) was evaluated by using Isometric 9241-10. SPSS was used as a technique for data processing.	Structured questionnaire based on the Chin and Lee model has been used to collect data. User satisfaction was chosen as a measurement of HIS success. SEM is the main statistical technique used to test the fit of the structural model, with the use of the AMOS software package.
Research sample	HIS users divided into the following types: „Prevailing medical secretaries" (user type 1), „Physicians "(user type 2), "Nursing staff I"(user type 3), "Prevailing physicians (user type 4), "Prevailing nursing staff"(user type5), "Nursing staff II"(user type 6)	IT professional support personnel	263 HIS users in mentioned hospitals including 98 (37%) nurses, 88 (33%) ward secretaries, and 77 (30%) employees of para clinical departments were selected by cluster sampling in the study.	The population sample was restricted to healthcare personnel, such as medical staff, nursing staff, and administrative staff from every department of the hospitals.

General Findings

We have found out that there is no method that could be accepted as the de facto standard in the evaluation of the hospital information system at this time. From our analysis we found out that the evaluation method based on Iso metrics 9241-10 is used in 2 cases out of 4 analyzed. We found that this area is little explored but becoming more and more important.

BRIEF EXPLANATION OF METHODS:

The international standard ISO 9241

The official title of ISO 9241 is "Ergonomic requirements for office work with visual display terminals (VDTs)". ISO has made a revision of this standard: ISO 9241-110:2006. The new name of the standard is: "Ergonomics of human-system interaction -- Part 110: Dialogue principles"

In particular, ISO 9241, part 10, refers to the organization and assessment of dialog systems. It is based on earlier German nationally proposed standards (DIN 66234, part 8, 1988). ISO standard establishes the following seven design objectives: suitability for the task, self-descriptiveness, controllability, conformity with user expectations, error tolerance, suitability for individualization,

suitability for learning (Gediga et al., 1998).

Ergonomic requirements for VDTs of ISO 9241 have 17 parts. These parts are: general introduction, guidance on task requirements, visual display requirements, keyboard requirements, workstation layout and postural requirements, environmental requirements, display requirements with reflections, requirements for displayed colours, requirements for non-keyboard input devices, dialogue principals, usability statements, presentation of information, user guidance, menu dialogues, command dialogues, direct manipulation dialogues, form filling dialogues

The ISO standard, however, does not give concrete recommendations how to realise software systems which conform to this standard; it only presents a number of typical applications and corresponding examples. Therefore, the ISO 9241/10 design principles offer only a frame of reference for the evaluation of software systems (Gediga et al., 1998).

Process Based IS Assessment Model (PB-ISAM)

PB-ISAM is a process based assessment method for IS effectiveness. It consists of 92 questions in 10 processes (Özkan, 2006). Conceptual model has three components and every component is assessed with several processes (Figure 1.)

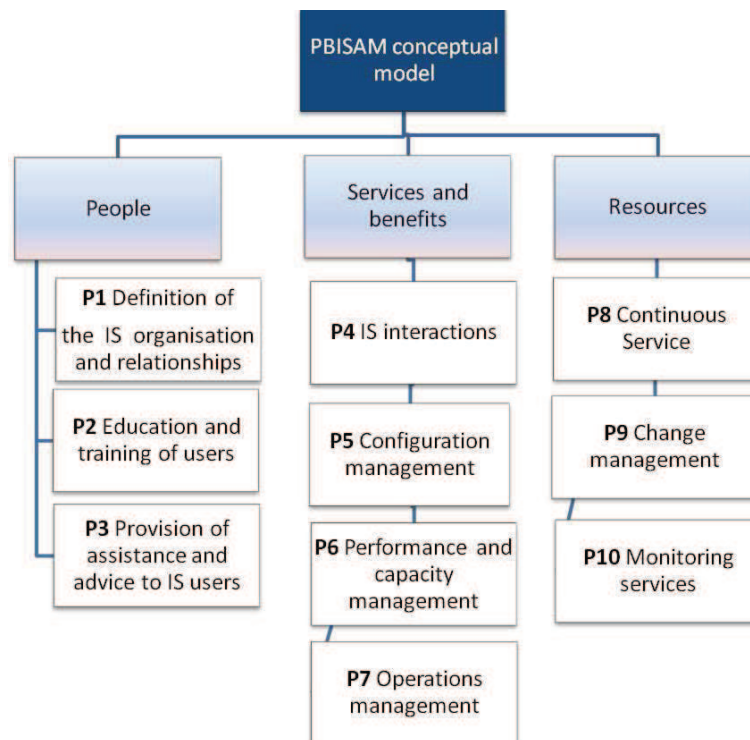


Figure 1. Components and processes of PB-ISAM MODEL

Measurement scale is consisted of the following maturity levels: Level 0=Non-existent, Level 1=Initial / Ad hoc, Level 2=Repeatable but intuitive, Level 3=Defined process, Level 4=Managed and measurable and Level 5=Optimised.

Method Based on Chin and Lee Model

According to model (Prodromos et al., 2012) there are four dimensions that are related to user satisfaction (Figure 2).



Figure 2: Four dimensions that are related to user satisfaction

DISCUSSION

Our institution is a general hospital which covers the middle Banat region with around 200,000 inhabitants and has significant experience in introduction and use of ICT and HIS, but slight experience with its evaluation. We have been using three information systems in less than 10 years. First one was “ZIS” and it was internally developed. The second one was “HIS2” developed by Spinnaker New Technologies. The third one that we currently use is “ZIS SHP2” developed by ComTrade IT Solutions and Services.

Criteria of similarity between our and reviewed hospitals were not strictly defined. All those hospitals were secondary or tertiary level of healthcare. The methods of evaluation were described in detail and some of them could be applied in our institution.

The first step of evaluation process is to define the right question. As different stakeholders have different interest in the evaluation study, the nature and types of questions to be asked can be quite different; health care organizations vary in size, organizational culture, power structure and management; there is no one-size-fits-all solution. Also different issues may emerge at different stages of system introduction; therefore, the evaluation methods and approaches vary significantly (Yu, 2010). There is no standard framework for evaluation effects and outputs of implementation and use of IT in the healthcare setting (Rahimi, et al. 2007).

IsoMetrics was proven to be a reliable technique for software evaluation in the field of hospital information systems supporting usability screenings in large organizations (Hamborg et al., 2004). The PB-ISAM is a useful method for IS evaluation and the adoption of this method would support more effective care programs generally (Özkan et al., 2004).

Model Chin and Lee follows the growing trend of applying qualitative evaluation methods. Methods of evaluations of HIS for more focused questions, such as influence of Clinical Decision Support Systems (CDSS) and Computer-Based Patient Record Systems (CBPRS) on medical practice, were described in the literature.

Conducting the Randomised Clinical Trials (RCTs) is the standard method of evaluation approach for CDSS, but this type of studies do not answer questions such as why some systems tend to be used while others are not, why the same system may be useful in one setting but not in another, why a CDSS may or may not be effective, or why different results are obtained in different studies (Kaplan, 2001).

Most of the studies of CBPRS, and the impact of CBPRS on medical practice, quality of care, and user and patient satisfaction, did not include qualitative factors such as characteristics of the disease and the tool, the ward in which it was developed, and the relationship between various healthcare professionals, which could have an impact upon the use of CBPRS (Rahimi, et al. 2007).

To evaluate Health IS various model has been used, such The DeLone and McLean Information System Success Model (D&M IS success model), Human, organization and technology-fit factors (HOT-fit) model, and a multimethod approach (DeLone, et al. 1992; Yusof, et al. 2008; Yu, 2010).

The significance of evaluation studies as well as the interest in adequate methods and approaches for evaluation has grown in medical informatics and to focus upon the quality of care processes and patient outcomes (Ammenwerth, et al. 2005). The perfect study has never been performed and probably never will be, but various approaches to study design and execution can minimize bias and maximize credibility (Shortliffe et al., 2006).

CONCLUSION:

The use of IT and HIS is emerging as a necessity in health care today. If we presumed that almost every hospital in the world uses some kind of HIS, it is imposed as important that each institution should conduct the evaluation of the system. HIS could be internally or externally developed – outsourced. Sometimes HIS is an integral part of one bigger comprehensive system which is realized as a nation-wide project. Relying on our experience and the experience of hospitals in other countries, it is recommended that all those systems should be evaluated locally in each hospital because of the technical and organizational characteristics of the institution.

Methods that could be used for evaluation could be very complex and require a number of preconditions. The methods presented in the paper have yielded concrete results and make it possible to other hospitals to carry out the evaluation of the HIS based on them. The experience of some countries that have been evaluated HIS in one or more hospitals tell us that it is possible to successfully carry out the evaluation of HIS.

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ACCOUNTING INFORMATION SYSTEM OPERATIONAL CONTROL OF BUSINESS OPERATIONS

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ABSTRACT

Modern business requires constant monitoring of the enterprise business process, it changes the dynamic and putting the company in a difficult business may violate the liquidity position of the enterprise, and even jeopardize the survival of the company. The development of the concept of information system provides the ability to control and predict business enterprises in the future. This gives the possibility of management to prepare the company and counteract the crisis situation in the business enterprise. Accounting information system as bloodstream company provides financial information about the functioning of the company, as well as information for business forecasting and planning for the future. As such, it has great power as part of a control company, which provides the basis for the response of companies in crisis situations. Generally accounting information system collects and processes data in order to create precise information about past and current business events marked by financial indicators. This paper presents an analysis of the role of accounting information system in the control of business operations. The research problem is defined through research issue, "What is the role and importance of accounting information system in the control of business operations." The research belongs to the field of analysis of accounting information system. Objective of the research is to demonstrate how much and what is the effect of accounting information system in the control of business companies.

Key words: Accounting information system, database, control of business operations, efficiency;

INTRODUCTION

The frequency and dynamics of changes that are manifested in today's modern business environment are more numerous and faster, it seems, than in any century of our civilization. They have affected all spheres of human activity, including bookkeeping and accounting. The importance of accounting information is growing due to the increasing changes in the environment and increasing susceptibility to these organizations. Every day a growing number of information and resources for information. We can say that there is overproduction of information, where the decision-makers and organizations swamped abundance as necessary, as unnecessary information. Therefore, the managers would not be burdened with unnecessary one hand, and on the other hand denied the relevant accounting information must approach the design and implementation of appropriate accounting information system. Generally information systems planning, processes and transmits information to support management functions and the process of making and implementing decisions. Managers use management information system not only as a quantitative task, but use it for storing large quantities of information about their organization, customers and the environment, which are readily available for use. In modern conditions of information society and the existence of real information revolution, accounting information is one of the most important resources of modern organizations and inputs based on which managers make management decisions and take the right actions. Accounting information system is the oldest in the enterprise information system. It must be harmoniously connected with all other parts of the information system. Accounting for such a system is closely working with other parts of the business information system of the company. Accounting information system is a set of techniques, technologies, methods and procedures for collecting, processing, distribution and archiving of data.

An important characteristic of accounting information is that they are not problematic orientations, ie aimed at solving a specific problem. After accounting occupies a key role in meeting the information needs of carrier management activities of the company, so it is necessary to systematization of accounting information. The main research hypothesis is:., Accounting information system is an important mechanism of control of business operations, which may prevent the crisis situation in the business enterprise." Basic aim of this paper is to demonstrate the importance and role, as well as the advantages and disadvantages of creating and implementing accounting information system operational control of enterprise management . This paper elaborated analysis and modeling impor accounting information system to function better control of the business enterprise. As a result, the analysis should be performed to demonstrate the importance and benefits of accounting information system in order to improve the business enterprise through better control of the business.

THE IMPORTANCE OF ACCOUNTING INFORMATION SYSTEMS FOR BUSINESS ENTERPRISE

Information system is a subsystem of economic agents, and inductively, his goal and his functioning must be defined to support and improve the functioning of the same. Generally each information system has the task of creating information as a basis for decisions related to various aspects of the business. Accounting information system collects and processes data in order to create precise information about past and current business events marked by financial indicators. Accounting, information system is a system of notes that operating system is genuine and kept for the purpose of maintaining the accounting system of the company. He evaluates, processes and transmits financial information about a company, including purchasing, sales, reports on the amount of inventory, billing and payments and other financial processes of the company. The purpose of accounting information system is to accumulate data that is information that will help the management of the company to disclose significant opportunities (chances) and problems (threats). Accounting information must be accurate, timely and relevant to decision-making within the accounting information system. Accounting information can occur in all phases of management and as such with the use of quality control of business operations. The managers of enterprises using information technology for providing information to order materials, inventories, sales, billing, budget and other data necessary for decision-making . Have an increasing application and systems to support monitoring, control, decision making and planning. Today, voice messages, fax machines, cell phones, pagers, electronic mail and video conferencing widely used in business communication. In the past ten years by increasing the number of personal computers, and expanding the use of public Internet network as a result of the practice appeared to electronic trading as a term for all transactions generated" electronically" through computers. An important feature of electronic commerce is that it offers equal opportunities for business both big and small countries or companies. In recent decades livelihood characterized by significant dynamic changes caused by the exponential growth of knowledge. The consequence of this development of human society is rapid and pronounced scientific- technical and technological progress . The functioning of the business system complicates the growing complexity of business enterprise and interrelatedness of phenomena and events in the business system and the environment. The intensity changes and qualitatively changed business conditions, pointing out the communication, in order to achieve interaction and connection of all elements of the system and the environment. Due to rapid development of information and communication technologies to solve the problems identified in the business. Quality management business policy and business decision-making within the business enterprise system is conditioned by the existence and functioning of integrated business information system. Accounting information system, subsystem as an integrated information system of the company is not only connected, but also conditioned by other subsystems of the information system, which together makes a unique system. Other subsystems business information system consists of: finance, market research, planning, structural and technological, operational - technical, control, commercial, legal and analytical. The main hypothesis for the construction of high-quality accounting information system is adequate planning

and organization of the accounting function in-house. In the process of raising the efficiency of enterprise management, plays a key role accounting information system.

Accounting information system integrates four subsystems, namely (Žager, 2008):

- subsystem relating to the recording of daily business operations, and that the aimed at making everyday routine decisions;
- subsystem ledger and financial reporting produced by traditional financial reports such as balance sheet, statement of income, statement of cash flows and the like.;
- subsystem of fixed assets and capital investments (expenses) that processes transactions relating to fixed assets;
- Reporting subsystem management that is focused on different levels of management and preparing the information in a form acceptable to management.

So organized accounting information system to support the management and implementation of various decision-making, because the information it produces a "data presented in a form which is suitable for users with significant value in current or future activities and decisions" (Davis and Olson, 1985). The fundamental reason why there is a general accounting prepares adequate information management. The role of accounting information systems, and can be represented graphically, Figure 1.

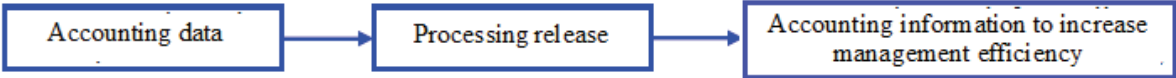


Figure 1: Transforming accounting data into the accounting information in order to increase the efficiency of enterprise management
 Source: Authors

Accounting information system is the support of various levels of management in making different decisions in their everyday performance. "Under present conditions of accounting information system is part of a computerized information system (computer-based information system - CBIS), and usually consists of the following four apps (applications): 1) data collection (data collection), 2) data processing (data processing) , 3) database management (data base management), and 4) generating information (information generation) (Hali, 1995). The basic elements and operation of accounting information systems, and we present a graphic, Figure 2.

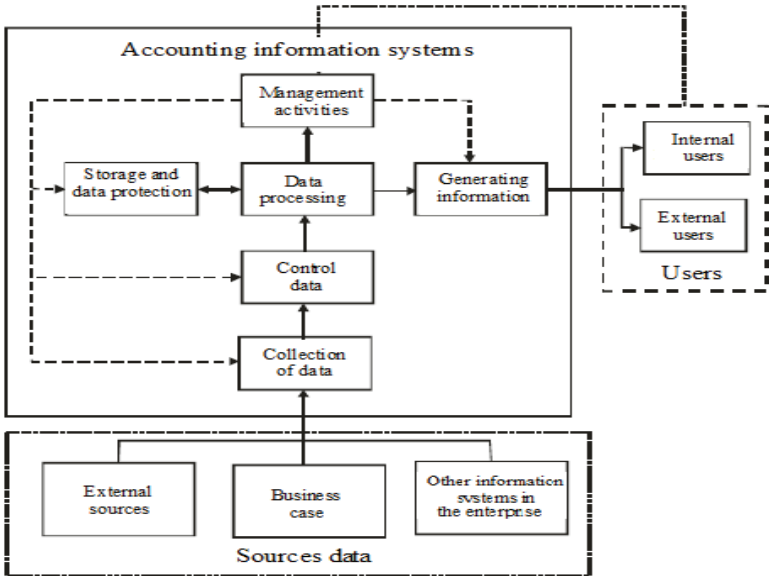


Figure 2: The functioning of the accounting information system
 Source: Wilkinson, 1993.

Based on the previous graph, we can see the basic relationship between the individual elements of the accounting information system. The objective of accounting information systems in the business system is that all employees have the accounting information they need in business decision-making, planning, execution and control. Today it is a growing need for an effective information system for the management of all activities of the companies. Since these factors are directly related to the final product of accounting - financial statements, they should be viewed as the primary factors that affect the quality of financial reporting.

CONTROL OF CERTAIN BUSINESS FUNCTIONS OF COMPANIES BASED ACCOUNTING INFORMATION SYSTEMS

Accounting programs have an extremely important role in the process of accounting control functions. One of the main problems is finding accounting errors in posting, posting simultaneity problem, the problem of integrating elements of bookkeeping problems and promptness. These problems are solved through control functions in accounting, but with the advent of information technology in accounting workload this function is significantly reduced. It is secured to communicate the automated posting, automated analytics and synthetics, automatic sum, automatic data comparisons and the like. Now the problem of errors and control was reduced to the original manually enter transactions into a computer . Furthermore, internal controls create an organizational plan and coordinating all methods adopted within the company in order to protect their property, checked the accuracy and reliability of accounting data, promote operational effectiveness, and encouraging adherence to prescribed managerial policies. Every system and process within the company exists to meet specific business purposes. The auditor should look for the existence of risk for these purposes and to ensure that internal controls are in the right place to minimize these risks. Therefore, the internal control group of interconnected components whose effects are properly coordinated jointly support the implementation of predetermined objectives of the information system. In order to achieve this, specific organizational, basic and application controls are implemented in all parts and levels of functioning information system.

Enough of management accounting information are in fact financial accounting information rearranged to suit a particular purpose control. Therefore, you should not expect to RIS companies still exist separately and financial accounting , and part of that is purely management accounting. The very term "storage of accounting data" (Engl. Data Warehouse accounting) means the collection of accounting data extracted from the operational database and stored in a special base or storage of accounting data . Accounting Data Warehouse is now considered the comprehensive architecture that incorporates all previous concepts and flavors of accounting information systems. The core philosophy of the DW is based on the concept of integration of accounting data. Integrity of accounting data is more valuable than the sum of the parts data. Accounting Data Warehouse is a unique, integrated data base accounting data that provides an infrastructure based on all the applications in an organization.

THE IMPORTANCE OF ACCOUNTING INFORMATION SYSTEM FOR PLANNING AND FORECASTING BUSINESS ENTERPRISES

Enough of management accounting information are in fact financial accounting information rearranged to suit a particular purpose control. Therefore, you should not expect to RIS companies still exist separately and financial accounting, and part of that is purely management accounting. Seen from the perspective of entrepreneurial activity, entrepreneurial company to survive and grow under conditions of uncertainty and turbulent change, it is necessary that entrepreneurial managers know what conditions they can expect in the future, which creates a basic foundation for rapid and flexible response to the dangers and opportunities planned, not inert and on the basis of coerced moves. Business forecasting aims to create a play about the conditions in which the realized action is necessary to achieve the objectives of business enterprises. Therefore, we can say that predicting

one of the main objectives of economic research for the business enterprise. Business forecasting trying to comprehensively perceive the past and the present in order to provide reliable information and create high-quality basic foundation for the process of restructuring the company in the future. Target system of accounting information system must have a connection with the accounting aspects of the assets and liabilities of the company, results of operations that result in revenue and walks of financial reporting. The information system is different from other types of systems in that its purpose is to record and document the operation of another system.

CONCLUSION

Internal controls are a set of procedures formulated by the administration, management and other employees for the purpose of obtaining reasonable assurances that it will fail to achieve organizational goals and unwanted risks to predict, detect , and to minimize the time. The management of the company, in cooperation with the management information system is directly responsible for the design, implementation and evaluation of the effectiveness of internal controls within the information system. Certainly it is difficult to say whether the information technology crucial influence on social processes, or vice versa. In any case, we can say that there are very intensive interactive relationships. The introduction of this kind of work in accounting, there was a multiple exemptions that appear in the form of reduction in workload, reducing the percentage of the problem, increasing the accuracy of data , better clarity and dynamism.

This has raised the whole accountancy at quite a higher level and made the job of recording secondary, and creative and meaningful part of the primary accounting job. Proper Structure accounting information system and adequate quality control of its functioning as a basis for sound financial reporting. Requirements of internal and external users of accounting information are often very different which is why before the accounting firm also sets a complex task. Generating timely, accurate and reliable information to their customers, the main task of accounting companies. Since the efficiency and effectiveness of the accounting system and depend on its role in the preparation of information for making certain business decisions within and outside the company. The main advantages of accounting information in what is accounting only complete system of numerical analysis of the company, as those securities or financial information and are directly linked to the objectives of the enterprise.

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TRAFFIC MANAGEMENT SOFTWARE - DYNAC

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ABSTRACT

The continual growth in road traffic increases the need for solutions allowing to monitor and control traffic helping to increase road safety, to improve traffic flow, and to protect the environment. Kapsch provides traffic management solutions allowing road authorities and operators to manage, monitor and maintain their roadways while giving the road users intelligent information to ensure convenient and save trip.

Key words: traffic, management, software.

INTRODUCTION

Traffic management measures are aimed at improving the safety and flow of traffic, reducing traffic emissions and utilising traffic artery capacity more effectively. Traffic management is used to curb demand for transport and affect the selection of the mode of transport, route, or the time of travel or transport. In particular, it is utilised during the first stages of the four-step principle applied in the development of traffic conditions.

Traffic management comprises the following elements: traffic information, traffic control, incident management, demand management, driver support and monitoring, and fleet and transport management. It also requires reliable, up-to-date status information on the transport system.

Traffic information offers up-to-date information for road users, both before and during travel. The information provided covers topics such as weather and road conditions, road maintenance, traffic incidents, traffic situation and alternative modes of travel.

Traffic is controlled per intersection, road section or the entire road network. Traffic control is divided into fixed and variable traffic control.

Incident management concerns the detection, handling and elimination of traffic incidents, such as accidents, in co-operation with various authorities.

Demand management is used to affect choices in the destination, time, mode of transport or route of travel or transport. Means of achieving this include regulating access or parking, arranging park-and-ride facilities, supporting carpooling, promoting public transport and pedestrian and bicycle traffic, providing traffic information and using peak-hour tolls and other road use charges.

Monitoring systems include automatic speed and intersection control, monitoring transports of hazardous materials and automatic lane-use monitoring.

Driver support systems comprise IT and communications technology applications, providing assistance to the driver. These include collision prevention, support for lane keeping and navigation systems.

Fleet management covers the planning, monitoring, control and assessment of the movement and operations of a vehicle fleet and its drivers. Transport management involves the management of transport chain operations and information flows. (Road Traffic Management Strategy Strategies of the Finnish Transport Agency, 3/2010)

SOFTWARE CONTROLLED TRAFFIC MANAGEMENT

The integrated management by Kapsch TrafficCom provides the ability to respond safely and effectively to traffic incidents and emergency situations. The operating staff will be able to monitor the entire road network from workstations and respond to incident with integrated control of all traffic devices.

DYNAC® SOFTWARE SUITE

Overview

The core solution of Transdyn is its advanced traffic management software suite DYNAC®. At the heart of DYNAC there is a SCADA software kernel that ensures the reliability and real-time properties required to effectively manage mission critical applications like highway, bridges and tunnels operation. Originating from process and automation control for industry and environmental facilities, the software has been made use by transportation agencies since 1990 to meet their growing demand for versatile intelligent transportation solutions.

DYNAC ensures optimal usage and safe passage on critical roadways, both under normal conditions and during periods when planned events or unexpected adverse conditions such as inclement weather, lane closures, vehicular incidents and heavy volume can impact the normal flow of traffic. It also allows its clients to cost-effectively monitor and improve their operations, enhance safety and rapidly respond to real-time conditions and emergency situations using a fully integrated software suite.

Supported Applications

Traffic Management Systems for Bridges and Tunnels:

Maintaining efficient and safe travel through bridge and tunnel facilities requires systems that integrate a host of applications including traffic management, facilities management, SCADA, life-safety, surveillance, and security. Kapsch TrafficCom offers total system solutions that combine traffic and facility management functions with other vital facility services into a single, robust user interface.

Our advanced traffic management systems allow transportation agencies to maintain safe travel through their facilities by identifying unauthorized stopped vehicles, monitoring critical structure areas, and responding rapidly to emergency situations with real-time decision support tools (see Figure 1).



Figure 1: Screenshot of Traffic management systems for bridges and tunnels
 (source: http://www.roadtraffic-technology.com/contractors/traffic_man/transdyn/transdyn5.html)

Traffic Management Systems for Roadways:

Transportation agencies rely upon our traffic management systems and services to manage their freeways, arterial networks, and rural highways. Our systems allow clients to efficiently manage their areas of responsibility, clear incidents, and disseminate real-time traffic information to the public in order to reduce the impact of accidents, stalled vehicles, adverse weather, or congestion.

Traffic Management Systems for Managed Lanes:

Kapsch TrafficCom also provides traffic management solutions for managed lanes (HOV/HOT). Via integration with the ETC back office, the DYNAC systems installed in these applications monitors the congestion levels in both the tolled and non-tolled lanes. This information is transmitted to the dynamic pricing algorithm which in turn provides toll pricing data to DYNAC for display on dynamic message signs. In addition, DYNAC provides incident detection, management and other traditional traffic management functions for these specialty roadways.

Network Management:

Network or Route Management means the predefinition of measures and routes for special situations that is enabled by the traffic management software suite. In case of a major impact on the roadways the predefined measures are taken automatically and the road users will be informed and re-routed.

Section Management:

For reducing accidents, improving the traffic flow and to increase the capacity of the roads as well as the reduction of environmental impact various traffic management measures are taken. Features such as variable speed limits, overtaking ban HGV, incident warning and management, dynamic lane management for instance hard shoulder running or tidal flow systems are integrated in the offered Software.

Node and Object Management:

The purpose of node and object management is to reduce congestion on the main carriageway by regulation of the additional traffic onto the highway. Solutions such as ramp metering (single system or coordinated) are offered by Kapsch TrafficCom.

Traffic Information:

The traffic management systems enables the automated generation of traffic information. Raw traffic data and environmental data are processed to traffic information so that customers can access it via a broad spectrum of telecommunication technologies such as web services.

Data Transfer and Data Processing:

Collecting, analyzing and processing the entire data from various devices on the roads in order to understand and monitor in real-time the prevailing traffic conditions. Generation of traffic data based on the infrastructure and data of ETC systems using Kapsch Telematics Platform. (<http://www.kapsch.net/ktc/its-solutions/Traffic-Management>)

CONCLUSION

Experiences and studies indicate that typically immense benefits can be achieved, for instance:

- Decrease of accident rate by 25 % (54 % avoided mass accidents, 80 % avoided accidents due to fog, 15 % avoided damage-only accidents) due to variable speed limits
- By the use of ramp metering accidents can be reduced up to 40% and congestion can be decreased up to 50 %. The average speed on the motorway could be increased by approximately 10 km/h
- Temporary hard shoulder running increases the capacity up to 25% (given three regular lanes).

It's evident: Unmanaged roads are the most expensive ones!

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WATER TREATMENT SIMULATORS

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ABSTRACT

The first-stage of software development, a state-of-the-art review of existing water treatment simulators, has been carried out to identify what would be needed for the new system. This review has identified that there has been little usage of water treatment modelling, with the two main objections being the quantity of data required to calibrate the models and the fragility of the models when applied outside the calibration region.

Key words: water treatment, simulation, software.

INTRODUCTION

Although drinking water treatment has a long history, the mathematical analysis of these treatment processes is still young. Many flocculation ‘models’ are data-driven (Baxter et al., 2002) and are difficult to generalise to other treatment works. Other treatment processes, such as disinfection and filtration, have been widely studied and the models are on a sounder basis.

To enhance the ease of use of these models, they have been linked together in flowsheeting programs. Flowsheeting programs started in the chemical industry in the 1960s, and in wastewater in the 1970s, but it was not until the 1990s that they were really applied to the water industry. Part of the reason for this has been the slow growth in the number of available models, so that there was no need to have a program that would allow the different models to be readily chained together. Another reason has been that mathematical modelling has largely been seen as an academic exercise, with ‘real’ water treatment plants designed using rule-of-thumb approaches developed with years of experience. With the emphasis on water safety, rather than economic efficiency, this approach produced conservative, working, plants.

DESCRIPTION OF AVAILABLE MODELLING ENVIRONMENTS

Five water treatment modelling packages were identified and reviewed:

- OTTER - WRc
- Stimela – TU Delft
- METREX – TU Duisberg
- WatPro - Hydromantis

OTTER

OTTER is a PC-based modelling package designed to dynamically simulate the performance of water treatment works (Head et al., 2002). Development of OTTER as a combined package began around 1996, with the earliest part of OTTER (the carbonate chemistry module) dating back to the early- to

mid-1980s. OTTER development has continued since, with the last public release of OTTER in 2003. OTTER has seen use throughout the world, but predominantly in the UK and USA.

OTTER can be used to simulate individual treatment processes or a complete treatment plant (see Figure 1). The program enables process scientists and plant operators to optimise the response of the works to changes in the raw water quality, plant throughput or process operating conditions. Typical uses of the software include operational decision support, works optimisation, plant design and operator training.

Version 2 of OTTER includes:

- Chemical floc formation and pH adjustment
- Clarification (floc blanket clarifiers, dissolved air flotation, sedimentation tanks, lamella settlers)
- Rapid gravity filtration
- Granular activated carbon adsorption
- Ozonation
- Disinfection
- Sludge treatment

OTTER models the occurrence, formation and removal of a wide range of water quality parameters, from general parameters such as turbidity and colour, organic parameters such as DOC, inorganics such as bromate through to pesticides and microbiological indices.

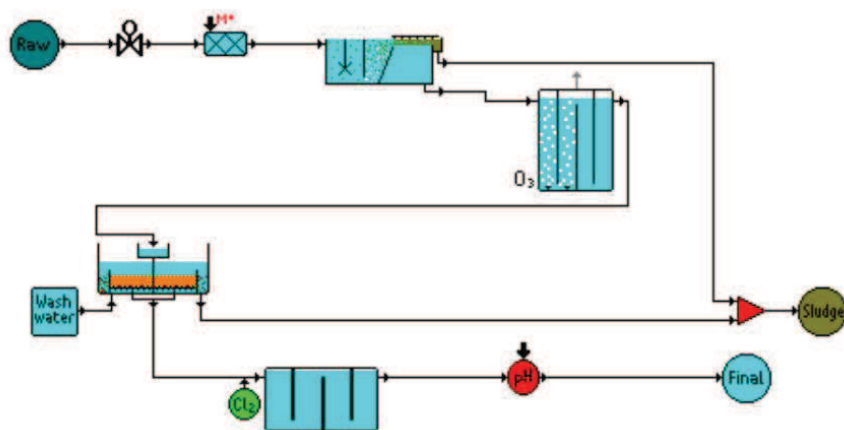


Figure 1: OTTER flowsheet

Several studies have been carried out using OTTER at waterworks (Butler, et al., 1998; Gallis, 1999). Generally these have all been successful, but have highlighted the relatively large data requirements for successful calibration and use. The empirical nature of the coagulation and flocculation models has meant that the calibrated models could not be applied much outside the calibration region, restricting the degree of optimisation that could be studied.

Stimela

Stimela is an environment where different drinking water treatment processes can be modelled dynamically. The models of individual processes are situated in a model library and can be connected to each other, forming a complete treatment train (see Figure 2). In this way, the effect of operational changes in preceding treatment processes can be evaluated (Helm and Rietveld , 2002).

Stimela includes the following processes:

- Aeration (cascades, towers, plates, sprayers)
- Filtration (single layer, double layer, continuous, biological)
- Granular activated carbon filtration
- Softening and conditioning

- Ozonation (bubble column and contact chambers)

Stimela models dissolved compounds such as gasses (CH_4 , CO_2 , O_2 , O_3), inorganic compounds (HCO_3^- , NH_4^+ , CO_3^{2-} , Ca^{2+}) and organic compounds (DOC, organic micropollutants, UV_{254} , AOC). In addition, floc removal is modelled by filtration.

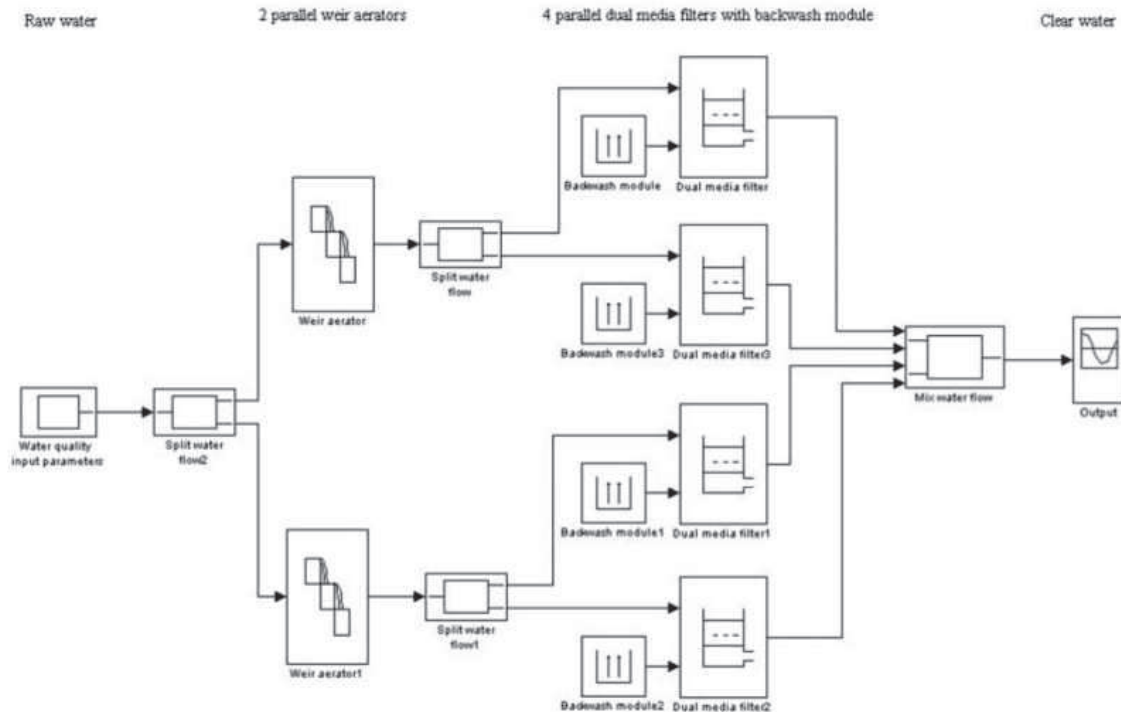


Figure 2: Example of a treatment train in the Stimela environment

Metrex

Metrex was developed at the University of Duisburg, Germany (Mälzer and Nahrstedt, 2002). It combines analytical and numerical models of common treatment steps used in surface water treatment:

- Microstraining
- Ozonation
- Floc formation
- Sedimentation
- Rapid filtration
- Granular activated carbon filtration
- Biodegradation
- Disinfection

The emphasis is on particle removal (particle size distributions are considered) and ozonation (oxidation of dissolved organic carbon, iron and manganese, and formation of bromate). Simulated plants can be configured in any combination of treatment steps. A graphical user interface assists with setting up the underlying mathematical models and required data.

Two levels of simulation exist. The first is designed to simulate the whole treatment process in operation mode, while the second provides support in designing and dimensioning single process steps. Determinands are characterized by their concentrations and in some cases additionally by their treatability (e.g. biodegradability or adsorbability on activated carbon). The models used for the simulation tools of the treatment steps are mechanistic ones. In many cases, qualitative knowledge exists about the range of values of the parameters and their dependencies on other known variables. This enables the user to estimate values for parameters by fuzzy-linguistic modelling.

WTP model

The Water Treatment Plant (WTP) model was originally developed by the United States Environmental Protection Agency (US EPA), in support of the Disinfectant/Disinfection By-products (D/DBP) Rule (Harrington, 1992).

The model describes the processes:

- Coagulation/flocculation
- Settling
- Filtration
- Granular activated carbon filtration
- Softening
- Membrane filtration
- Chlorination

WTP is based on empirical relations obtained from regression analysis. It was prepared with the understanding that the predictions should reflect typical average performance values, and is focused on the removal of natural organic matter (NOM), the formation of DBPs and disinfection. It is not to be construed that the results from the model will necessarily be applicable to individual raw water quality and water treatment at specific municipalities. This model does not replace sound engineering judgement based on site-specific treatability data to evaluate the best manner in which to address the requirements of the Surface Water Treatment Rule (SWTR) or potential D/DBP Rule. It is understood that one limitation of the model is the extent of the database availability to verify model predictions. In a desire to systematically improve the overall predictive capability, the intent of the model is to solicit public comment on the usefulness and relative accuracy of the predictions on a case-by-case basis. The WTP model includes a method to enter laboratory analysis so that a comparison can be made to the model predictions. In 2000, the WTP model was modified. Old algorithms were updated and new process algorithms were added, especially related to inactivation of microorganisms, formation of DBPs and the decay of disinfectants.

WatPro

WatPro is supplied by Hydromantis Inc. It is a steady-state water treatment modelling program, with a focus on disinfection and disinfection by-products. Although other aspects of water treatment processes are supported, these are of lesser significance within the package's scope. The information in this section is taken from the WatPro User Guide (Hydromantis, 2004). Supported treatment processes are:

- Flocculation;
- Settling basin – this model does not appear to do any specific settlement; rather, the user specifies the outlet turbidity;
- Filtration – simple models, where the user specifies the percentage removal of TOC and UV254, and optionally the effluent turbidity;
- GAC adsorption – this appears to be an incomplete model, as it uses a Freundlich isotherm to describe removal of TOC and UV254 but requires that the user provide only one of the two parameters in the Freundlich model, the exponent n ;
- Membrane treatment – again a simple model, where the user specifies the percentage of water produced through the membrane (the remainder is treated as the waste stream, i.e. the concentrate) and optionally the effluent turbidity;
- Contact tank – for chlorine disinfection;
- Ozonation – ozone disinfection.

WatPro's strength is in the prediction of chlorination by-products, using published US EPA correlations. It is less useful in modelling other aspects of water treatment, as all other water treatment processes are defined by the user specifying either a percentage removal - which is independent of water quality or flow - or an outlet turbidity from the process tank - again independent of water quality or flow.

RESULTS AND EVALUATION

Each of the water treatment modelling packages discussed above has its specific characteristics. OTTER contains models for most commonly encountered processes and less conventional processes may require development of a suitable mathematical model (Head et al., 2002). The main purpose of Stimela is to support research and development, and control applications. Therefore, it focuses on model development, programming is open and structured and graphical output is flexible. Metrex was developed mainly to examine the use of particle size distribution as a modelling approach to better understand particle removal processes, rather than general water treatment. Metrex is not actively being developed. The WTP model was developed to simulate the general case rather than the site-specific case. Some drinking water treatment plant operators may be tempted to use this model as a substitute for site-specific studies. However, the output from the model is not intended to, nor should it, replace sound engineering judgement based on bench-, pilot- and field-scale treatability studies for specific waters (Harrington et al., 1992). The model is mainly used for evaluation of design rather than operational optimisation studies.

CONCLUSION

Although flowsheeting programs have been applied to water treatment modelling since the 1990s, available software packages have not been widely adopted by the water industry.

Five water treatment modelling packages were reviewed; each had its strengths and weaknesses. OTTER and Stimela were selected as the basis of the framework for the new water treatment simulator to be developed as part of TECHNEAU. Work is now underway to integrate the two existing models and to design the modelling framework.

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EFFECTIVE ROLE OF MANAGEMENT IN SPORTS

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ABSTRACT

Since sports have become institutionalized games, sports scores, as well as various sports achievements and records are now ranked among the highest social values. Sport now represents a complex activity in which social, economic, scientific and numerous other factors are involved. Management as a process and modern scientific discipline, applied in sport organizations, therefore becoming Sports Management, systematically organizes various human, material and economic resources in order to achieve optimal performance in various aspects. Sport management is the process of studying how sport organizations achieve their goals using human, material, informational and financial resources in order to maximize their business and sports performances. Goal of this paper is to point out to the significance and effective role of management in modern sports in order to achieve basic purpose of business – making profit.

Key words: management, sports, business, effective role

INTRODUCTION

Choosing the proper guidance of children in the appropriate sport is one of the most important and certainly the most challenging issues that arise. Modern sport faces different problems. To make top sport result or successful sport organization represents a challenge. The core of the practical problem of sport is that wishes and ambitions of different stakeholders – companies, sponsors, media houses and others to make profit of sport results don't mean well-being for sport, sportsmen, trainers, sport managers and supporters (Sajfert Z. 2009). At the market, seller and buyer both have specific interest. However, if sport is considered to be the object of business it means that it can be easily compared to other, mostly economic and profitable organizations and their attributes (Malacko, 2008). Sport organizations are mostly social organizations and have special goals that are often not related to profit. They mostly belong to non-profit or non-business organizations that have their own structures, status and behavior rules. Management and marketing in sport represent one of the most important and most complex activities which ensure that the sports and business functions are implemented in the rational, cost-effective and efficient manner (Rakita B., 2005). The management of sports organizations anticipates sports development, manages general planning activities in the field of sport, organizes all the relevant resources, processes and functions, exercises a policy of human resource development, organizes sports and business functions, provides communication and coordination, makes decisions on the implementation of the most suitable solutions, processes and eliminates destructive conflicts (Wehrich H. et al., 2004, Stoner J.A.F. et al., 1995). Today, with a high level of sporting achievements in the world, as well as the application of sports science and training technologies, increasing attention is paid to human resource management in sports and business functions in sports organizations. High level of sports science applied through training and control technology has a direct impact on human resources in sports organizations. Marketing agencies in sports today are not only involved in the negotiations,

advertising and the conclusion of various contracts, but also provide many other services. Some of the key factors for achieving success and competitive advantage in management, marketing and sports in general are: possession and management of information, detection and reaction to changes in the environment, application of new technological developments, development of knowledge acquisition systems for both existing and new knowledge (Đorđević D. et al. 2004, Grozdanić R. et al. 1999).

APPLIANCE OF COMPUTER TECHNOLOGIES IN SPORTS

During the last decades information technology has become an important interdisciplinary partner for sports, primary due to the fact that the increased usage of information and media, design models and various analysis require support of appropriate tools and concepts that are available and have been developed in computer science. Research activities in the field of sports are heavily influenced by contemporary developments in computer science.

The results getting better in different sports have greatly changed the perception and nature of work in sports and set new requirements for addressing a number of current tasks. Rapid changes have become significant in both sports and technology. All organizations must adapt to these changes in order to remain competitive. Development of information technologies and their integration into all aspects of our social and economic life is no exception in sports. Particular progress was observed in the particular system of training and analysis of opposing teams and players, i.e. scouting. Usage of computer and informational technologies removed a huge burden and responsibility of keeping statistics with assistant coaches, while also giving them a lot of information on where they, as a sports team, currently stand. That kind of information until just twenty years could be only dreamed of. Best feature is that the widespread and relatively low cost computers and software provides all that relevant information. At the beginning of the season coaches are primarily interested in the use of various statistical reports for analysis and evaluation of individual players. But once the coach gains insight into the strengths and weaknesses of their players, their interest is oriented towards the team as a whole. It must be pointed out that the team statistics are now the most important statistics.

Statistics are not used only by coaches. On the contrary, the entire population of fans and admirers of the sport is, with the massive help of technologies and media such as television and the Internet, able to monitor the performance of teams and individuals. Also, for many people, such as journalists and commentators, game statistics provides significant help in carrying out their work, while, for some people, such as sports managers, it is vital to their profession. After all, the sport over the last few decades has become more than just a game. Today it is a major business in which to invest huge funds.

The first computer applications used in the sport were used in the 1960s. Concepts and experimental methods used in other scientific disciplines were also adopted and applied in the field of sports. Computers are mainly used for information gathering and data storage, and later with the development of new applications and technologies have been used for static analysis, numerical calculation and data collection in biomechanical research.

In fact, the development of hardware (processor speed, memory capacity and communication technology), software (tools, programs), methods of information management (databases, data mining) and media (internet, e-learning, multimedia) are of great importance not only to the sports as a field, but to all individuals involved. In line with the development of information technology, the modern sport can gain advantage in the collection, analysis, and data management. Development in the handling of data also makes it easier to acquire the data and to development of new concepts and methods of data gathering and processing. Information and communication technologies, viewed from the aspect of their applications, integrate modern technology with modern computer systems and communications. This newly designed integrated information

systems established and implemented a set of organizational rules, which are linked to carry out the units of work.

In order for any sports organization to establish an information system, it is necessary for that system to be previously designed, compatible and equal to all the relevant similar systems, and at the same time to have the latest information technology, software, trained personnel, as well as the necessary organizational and normative terms and conditions of with the purpose to allow the collection, processing, interpretation and dissemination of data, which are primarily for the development of professional sport. It is necessary to consolidate information technology resources that include human resources such as experts and users, hardware resources of a computer system, a software resource such as software packages, database resources, network resources communications media and network equipment etc.

Having in mind all of the key facts and information presented above, we can come to a conclusion that usage of information technologies can, and do provide various valuable information for sports managers so they can make better decisions.

MANAGEMENT AND BRANDING

People trust that buying certain product show the way they are (Kotler P., 2003, Kotler P. et al., 1996). Brand is a promise and fulfillment of that promise. It is defined so by Marc Globe, one of the most eminent experts in the field of branding and author of the book "Emotional branding – New paradigm connecting to people". There are many brands in the word for different categories of products and services. The only thing which can distinct one product from the other is an emotion. At the end is a promise of what certain trade mark give will to the consumer. This promise is supposed not to be let down. Simply, in branding focus is on people and their expectations. Consumers believe that buying a brand can show their value. Therefore, it is not surprising that consumers are willing to give a lot of money for certain product. (Drašković et al., 2006) Explanation of his conditional irrationality lies in the fact that human choices are based on emotions. The beauty lies in the eyes of the spectators. In order to be real, brand must find its way to the heart of consumer.

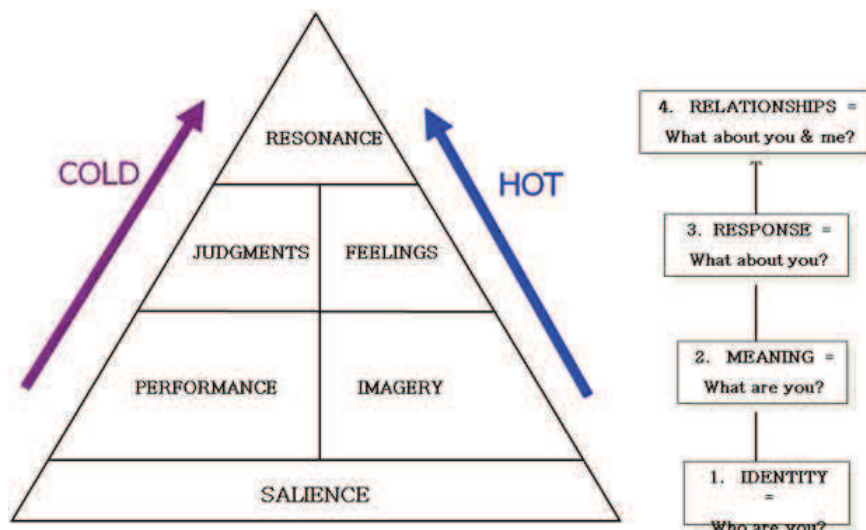


Figure 1: Reasons for buying the brand

In order to gain profits, sports management usually makes commercials displaying symbols of their club in cooperation with their star players. A desired effect is to attract more viewers and therefore sell more tickets, as well as other club merchandise, such as jerseys, hats key chains etc. Often sport clubs make contracts with companies that sell refreshments in order to up their sales using players

from their clubs as stars of commercials and advertisements, so the club can get a percentage of sales from a company that they have made a contract with. Management of the sports club then decides where to invest resources gained that way. Often resources are directed into new equipment, both technology and sports related, player's salaries, new advertisement merchandise etc.

MODEL OF CLUB ORGANIZATION

Activities of the sports club are most visible through the competition league and through games they play but that is just the tip of the pyramid of its activities. It is an environment in which they arise and become the players and the environment where they gain recognition as they achieve superior results. Those are actually two main objectives and tasks that are to be accomplished as the work of a team. It is an old truth that "nothing succeeds like success", but here we agree with that we put emphasis on the necessity of creating players for at least two reasons: on one hand we should take advantage of the great popularity that basketball and sports in general have and that we have a natural predisposition for sports and in the other there is an inability to counter clubs that have vast findings and use them to create players in order to stay on to (Raić et al, 2001). This comes to having a team that is diverse and privatization of a clubs is strongly supported, as well as the adoption of legal regulations in the areas of sport, which would facilitate financing. Either way, under present conditions, it is very difficult to provide funds for the club and sport in general, so it is important that those, with difficulty obtained funds, are invested in the best way possible. Therefore the selection of the right people - sports management and coaching staff above all, is the most important task and, if done well, facilitates the solution of the second necessary condition for the functioning of the story of a sports club. The organization sports club is largely universal, but at the same time, in each case specific and requires a more or less original solutions. (Koković, 2004) The lower the level of competition and organization is a distinctive feature of amateurs which relies on volunteerism and enthusiasm. However large clubs must be highly professional and organized.

Here, a model of the sports club, will be presented, which may be the basis for any other club that differ based on the level of competition and the size of the club. Based on the size of the club and level of competition in which they compete, management teams can have a greater or lesser presence of amateurism or professionalism. Small local clubs have a smaller budget with less professionally engaged people. The common denominator for all could be called the environment in which the club operates. Creating a healthy environment for the club is the most important requirement for the successful development of the club and reaching their goals. That involves defining the two most important things:

- human resources (human resorts)
- material resources (budget)

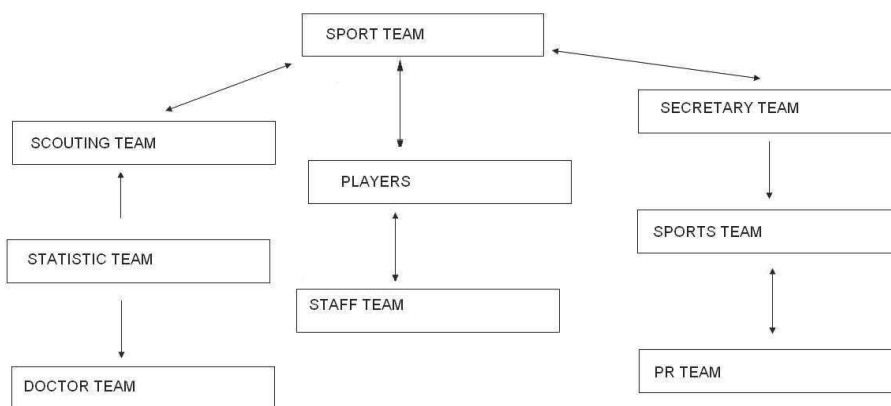


Figure 2: Sports team organization

A well organized club must have a sports medicine specialist or physiatrist with extensive experience in working with athletes. Athletes exposed to extreme efforts must have expert medical supervision at all times, because one injury, of an individual player may determine the fate of the entire season. Each sports club in the event of injury or any medical problems must have a team doctor, or a team of doctors, in order to have an insight into the health status of any player on the team. In case of an injury the task of the doctor or a medical team is to determine an accurate diagnosis and determine treatment and recovery mode in order to shorten possible recovery time for the player. Classic medicine does not meet the needs of the professional sport players because there is an emphasis on speed of the recovery. Physician further specifies recovery time and a way of introducing the player back to the training process.

CONCLUSION

Sport supporters as individuals and wide sports public today live in the environment where they are forced to permanently adapt to different changes. In such circumstances it is very hard to achieve success and man tends to be successful. It is hard to imagine life without success in any area: family, business, sport, hobby, etc. Identification with successful sportsmen and sport teams is basically identification with success: only successful sport players can gather mass of viewers, supporters and media enable directed connection between them, who feel success, victory, joy and happiness together with the winner. Often there is an acknowledgement that the success of our favorite sportsman or sport team is not just the result of their skills, but our personal success too. It is the core of emotional experience that is activated by their victory. In this case, the care and support of viewers and consumers is not limited to just support, but it goes to belonging that is logical consequence of process of identification. To sum up, when sponsors buy from media houses, they do not care just to buy media attention, but a lot more – support, trust and emotional relationship with consumers – supporters of sport events.

With this in mind, sports management gathers investors, sponsors and valuable personnel in order to gather resources and distribute them to sections that will currently benefit the most in order to generate profit and keep the wide sports public entertained and satisfied so the cycle can repeat itself and sustain functioning of the sports club.

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THE NEGATIVE IMPLICATIONS OF INFORMATION AND COMMUNICATION TECHNOLOGIES: TECHNICAL, SAFETY, AND SOCIAL ASPECT

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ABSTRACT

Today, the modern information and communication technologies (ICT) are the bearer of the main organizational and interpersonal changes. The process of time and space compression via ICT leads to reduction of both time and space distance between people. In this way, the flow of information through space is enabled, accelerating life beyond the conceivable boundaries. Naturally when we speak of ICT, we indeed perceive numerous advantages which impose themselves and which have a direct effect on the internal efficiency. However, beside the advantages brought by ICT, we have to take into consideration the negative aspects which arise from the changes in these technologies. In this paper we will analyze and categorize them into three aspects: technical, safety and social. This categorization is made by extension, analysis and synthesis of existing scientific papers using deduction method for creation of this tripartite model in order to provide a broad overview of negative implications of ICT.

Key words: Information and Communication Technology, Technical Aspect, Safety Aspect, Social Aspect

INTRODUCTION

Technology is the factor that radically changes and redefines not only organizations as institutional legal entity of joined work of people, but all the processes and systems which are done in organizations, it changes attitudes, expectations and behaviour of employees (Petković & Lukić, 2013). Information and communication technology (ICT) is the technology with fastest growing, in either technical or business dimension, and it is very difficult to predict its future impact (Galaire, 1998). From technological point of view information and communication technology encompasses a broad array of communication media and devices which link information systems and people including voice mail, e-mail, voice and video conferencing, the internet, groupware and corporate intranets, car phones, fax machines, personal digital assistants, and so on (Campbell, 1999; Edwards, 1999). From a business perspective information and communication technology includes three key resources that, when used together, can be a source of competitive advantage of organizations (Ross et al., 1996, p. 33): 1) human resources, 2) technology, and 3) the relationship between ICT and management.

Today, the modern information and communication technologies (ICT) are the bearer of the main organizational and interpersonal changes, because they refer to computer mediated work where a task is accomplished through the medium of the information system rather than through direct physical contact (Zuboff, 1985). In this paper we analyze the negative aspects of ICT using tripartite model: technical, safety and social aspect.

NEGATIVE TECHNICAL ASPECTS OF ICT

In order to be able to use information and communication technology through which communication is maintained, one needs to possess certain ICT resources. However, this may represent a considerable expense for the companies which seek to introduce it. In most cases, implementation of latest ICT results in increased productivity and more efficient time management, and as such, it positively affects a company's business, but this might not apply for all companies (Brynjolfsson & Hitt, 1998). Almost every company implements this system by inertia, without analyzing whether it can bear it financially, and all the while ignoring the expenses of network maintenance and usage license renewal. On the other hand, technological advancement requires system updates which are time consuming and they require further expenses, and even if an organization is capable of handling that cost, mismanagement of those resources can be the cause of many problems (Stratopoulos & Dehning, 2000). Evidence from a range of studies suggests that adoption of new technologies is very difficult for organizations which must adapt for that new technology to be effectively used (Orlikowski, 2000).

The employee training is one of the technical issues that reoccurs as problem. Even though most people in this modern world of today have the basic knowledge of ICT resources usage, some technologies demand additional training. Training and CPD programs (CPD - Continuous Professional Development) are of course, necessary, but they can be time-consuming from the employees for the reason of the definition of those training sessions by a certain number of hours, which is particularly reflected in dynamic environments (Hutchinson & Purcell, 2007). At the same time, one must not ignore the fact that there are elderly people who simply do not want to learn or even use certain items of modern technology and which are repulsive for them in a way (Themistocleous et al., 2008). These changes may cause distress with the aging employees since it may destroy their positive self-image of experts in their line of work which they have earned through education and many years of experience. However, they are an irreplaceable 'part' of the system since their experience and previous results are the foundation of what the newer generations are tackling these days. Thus, aging generations of employees should be approached very patiently on this matter so that they would not look upon technological changes as an impediment but as a support tool.

Naturally, the structure of the employees changes with the development and implementation of new technologies (Rotman, 2013). Providing managers with timely and complete information, ICT has reduced the need for various levels of hierarchy, especially the middle management, making the hierarchical structures more flatter (Petković & Lukić, 2013). Although the need for new working positions emerges (database administrator, system administrator, etc.), some of the 'old' ones become redundant in time, such as the switchboard operators in a telephone company who, before modern technology used to maintain communicational channels by connecting each call manually. This type of work force transformation requires time and money. One of the negative technical aspect of ICT is also its use for private purposes during one's working hours which can lead to a decrease in employee's efficiency. As Caplan suggests that the usage of business computers, mobile phones and other means of communication for personal purpose and for entertainment purposes (cyberloafing) can slow down and reduce productivity (Caplan, 2006, p.64), degrade the usage of IT resources and it poses a high risk of liability (Lim, 2002). As an answer to this problem, certain limitations of communication technology usage are introduced or specific types of supervision. These strategies often lead to discontent, loss of trust and authority, and disturbance of the organizational culture (Cox et al., 2005).

NEGATIVE SAFETY ASPECTS OF ICT

In modern, highly distributed and wired networked communication systems which are based on internet technologies, appeared a new aspect of property – informational property. Informational technology includes all strategic, personal, financial, commercial, legal information, data base, back-up information, coding keys and password (Grubor & Milosavljević, 2010). Beside numerous advantages, the main problem and main vulnerability of this type of data (information) and their keeping and storage is the possibility of misuse. The misuse can appear in versatile shapes and for different motives. In the world of management the most common reasons of misuse are of economic character, and it is reflected

in the following types of offenses (in this paper, violations are reviewed which have a negative effect on the business of organization which is the victim of the attack):

- Online theft implies a fraud for the purpose of gaining access to the company's accounts form which assets are illegally taken. In most cases, it is performed through an insider who is an employee of the company which is the target of the fraud.
- Extortion in cyber world means an extortion of the company's financial means in order to abort further sabotage of the work and control takeover of the company's site. Sabotage of the web site performance can lead to a violation of the company's reputation and of the brand.
- Industrial espionage represents an illegal access to classified information (financial reports, project documentation, communication logs etc.) or in other words, gathering information between competitors. Industrial espionage is executed with the aim of achieving strategic and competitive advantage or a personal financial gain (Toriola, 2011).
- Intellectual property theft is the action of stealing ideas, design, product specification, business secrets, and information usually by competitive organizations or states so as to reduce the competitive advantage of the rivaling organization or even surpassing it in the area of scientific and technological accomplishments.
- Customer data-loss represents a loss of classified information of the creditor or consumer. This happens mostly due to data theft for the purpose of selling of the data, personal usage and blackmail or because of the data base disappearance or damage which results in grand financial losses of the company (Liu & Khun, 2010).

With ICT development and application, that is, in the informational environment of industrial espionage, misuse, and stealing of business classified data, user data theft becomes more and more present, easier, heterogeneous, and what is most important from the aspect of the perpetrator, anonymous (Petrović, 2010).

ICT misuse does not have an exclusive influence on the business of organization, but the intense influence of this way of ICT resources usage can be sensed on a larger scale. According to the Great Britain government reports (www.gov.uk/government), the estimated damage on a yearly basis which is bared by the Great Britain's economy amounts to 27 billion £ with a growth tendency. Also a certain possibility of expenses increase is mentioned in the report as a result of the ever stronger dependence of organizations on the information and communication technology.

NEGATIVE SOCIAL ASPECTS OF ICT

If information and communication technology is treated only as technological innovation, management of organizations will face many problems and learn many unpleasant lessons from social aspects of ICT (Woodman, 1989). In this paper, we have identified and described some of the most important negative social aspects of ICT.

- Dehumanization and psychological impacts of ICT. Common feelings of many employees are loss of identity and dehumanization, because ICT reduce or even completely eliminate direct contact and human element in communication, so the employees often feel like "just another number" (Turban et al., 2004). Also, there are many negative psychological effects that may arise when people are encouraged to work and fulfill their needs clicking on the mouse button from their chairs in living rooms, because they eliminate social activities and in the long-run may feel lonely and depressed.
- Information overload and anxiety. We live in the big data era, in which the amount of information is constantly rising from second to second. Information overload, a situation when the amount of information in one system exceeds its processing capacity can lead to information anxiety. As we are faced with increasing amounts of information in the form of news, e-mails, blog posts, Facebook statuses, Tweets and other sources, we become their own editors and aggregators which sometimes can have negative impact on our productivity and decision-making process (Bill, 2010). Quality of the information available on the Internet, their often incompleteness and inaccuracy, too many online sources are also the bearer of information anxiety.

- The erosion of privacy in the Internet era. Mass deployment and ability to digitally collect, store, retrieve, classify and sort large amounts of data with cameras, recording devices, sensors, medical monitors threatens personal privacy (Shaw, 2009). It is not surprising that privacy is a concern of the legal profession, but nowadays computer scientist are the most competent to protect privacy because they are often the first to recognize privacy problems with new technologies and also they are providers of the solutions when their nature is technological (Shaw, 2009).
- Job stress. Organizations benefited from ICT by increasing productivity, reducing monotonous work, repetitive activities, but on the other hand ICT put a pressure on some employees who are not proficient with computers but must work with them. The new ICT also increase stress in employees by increasing the pace of work and minutely monitoring employee behavior (Rifkin, 1995). In practice, there is a notion of “Digital Taylorism” – people in many jobs are under pressure to achieve defined, fixed goals knowing that they are monitored via e-mail, telephone calls, computer files, Internet logs (Stanford, 2005).
- It is important to acknowledge that jobs are both created and destroyed by ICT. Advances in ICT are making it possible to fully automate many tasks that have long been regarded as impossible or impractical for machines to perform, so the people are replaced by ICT. On the other hand, sophisticated analytics tools require highly skilled employees, who must take care of them, so the new job appears (Manyika et al., 2013).
- Less job satisfaction and involvement. Zuboff categorizes IT into two types: automated and informed. An automating technology deskills the processes that make up the work, and human labor can be substituted with technology (Zuboff, 1988) partly or completely. Some types of technology require highly efficient and repetitive activities while at the same time reduces the potential and opportunity for high levels of mental activity. Many employees face this problem which leads to less job satisfaction and involvement, lower organizational commitment and often lower motivation to perform job well (Wall et al., 1990).
- Health issues of ICT. ICT can have negative effect on our health: because of its long-term use and impact on environment. Looking at monitors raises the issue of radiation exposure, which has been related to various health problems, for example eyesight. Nowadays, many people have muscle tension in the wrists and fingers so called carpal tunnel syndrome which has been associated with the long-term use of keyboards (Turban et al., 2004). Designers are focused on creating a better computing environment and adapting it to work environments and people. On the other hand, ICT has indirect impact on our health because it has contributed towards the greenhouse gas emissions and it is the consumer of significant amounts of electricity.
- Neglected intuition. While scholars in the field of ICT claim that its main function is to provide accurate information for decision making (Brynjolfson et al., 2011; Davenport, 2010), other scholars advocate strongly for the importance of intuition for complex problem solving (Hammond et al., 1997) which is often neglected because of quantitative data available through ICT. Their findings show that expert decision makers can use intuition effectively in complex problem solving related to their domain of expertise.
- New virtual workplace. One of the ICT enabled organizational form is virtual organization which represents a geographically distributed organization whose members are bound by long-term common interest or goal, and who communicate and coordinate their work through ICT (Ahuja and Carley, 1998). Although employees’ overall responsibilities and tasks often remain the same, virtual work fundamentally changes the work environment and the manner that employees engage with the organization and interact with other members (Golden et al., 2008). Physical isolation from other employees and clients is one of the main challenges for virtual employees. It implies reductions in the level and intensity of direct contact and according to that, physically isolated employees perceive that they are treated differently and believe that they are less valued in the workplace (McCloskey and Igbaria, 2003). Some empirical investigation have shown that virtual employees have negative feelings in comparison to traditional, office employees (Bartel et al., 2011): feeling isolated, lost in the crowd, undervalued, not seen as credible, not getting respect, not involved in the real work of company, not a part of key decisions.

In table 1 we summarize presented negative ICT implications from technical, safety and social aspect.

Table 1: Negative ICT implications: technical, safety and social aspect

TECHICAL ASPECT	SAFETY ASPECT	SOCIAL ASPECT
<ul style="list-style-type: none"> ●Expenses of network maintenance and usage license renewal ●The employee training ●Using of ICT resources for private purposes 	<ul style="list-style-type: none"> ●Online theft ●Extortion ●Industrial espionage ●Intellectual property theft ●Customer data-loss 	<ul style="list-style-type: none"> ●Dehumanization, negative psychological impact ●Information overload and anxiety ●The erosion of privacy ●Job stress ●Less job satisfaction and involvement ●Fear for loosing job ●Health issues of ICT ●Neglected intuition ●New virtual workplace

CONCLUSION

The ongoing ICT revolution has numerous impacts at modern society and requires serious investigations from various fields in order to manage its risks, dangers and negative implications. Beside all positive impacts of ICT which have been described in literature to a huge extent, the aim of this paper is to show some of the negative impacts which are also presented in literature but at a much lesser extent. We created tripartite model of negative ICT implications on technical, safety and social aspect. There is a danger that all presented negative impact of ICT will be more pronounced with the passage of time that will be inevitably permeated with intense development and progress of ICT.

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APPLIANCE OF QR CODES IN ADVERTISING AND MARKETING

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ABSTRACT

In this paper we present the possibilities of QR codes application in advertising. Through promotion and advertising, which take place every day, companies distinguish themselves from the competition and attract new customers and clients. With the advancement of smart mobile phones a new form of marketing is starting to develop. This new form of marketing is called QR marketing. Essence of QR marketing is based on creating and scanning a QR code, which contains some advertisement data, usually the company logo, product picture, some textual content, or a URL address that leads to some product or a web site of a company that created scanned QR Code. QR Code creation is available for everyone, every person or company can create its own QR code which will be then used for advertising.

Key words: QR codes, mobile phones, QR business card, QR generator, QR marketing

INTRODUCTION

A QR Code (abbreviation for Quick Response code) is type of a bar code that is able to hold much more information than a one-dimensional bar code, because it carries data in two dimensions (horizontally and vertically). In fact, compared to a classic bar code's 20 alphanumeric character limit, a QR Code can hold thousands of characters of data. As a result, a QR Code can be used to share multimedia content, a landing page or an entire catalog.

Creator of QR codes, which first came into use 1994 in their manufacture is company Denso Wave from Japan, a company that makes cars and spare parts. Although the term "QR Code" is a registered trademark, the technology itself has not been patented and is therefore available for anyone to use. One key benefit of these codes for the Japanese market is that they are one of the most efficient ways of encoding Japanese characters. However, their high data capacity, small print-out size and resistance to dirt and damage (QR codes can still be read when up to 30% of the code has been corrupted) ensured the proliferation of this technology to other applications. In addition, unlike bar codes, which can only be read by a special scanner, many smartphones are able to scan QR codes, making them an excellent way to provide large amounts of information in a very small space (Boyles, 2012).

ADVERTISING AND MOBILE PHONES

Every company in the world spends a lot of money for advertising and marketing. Companies pay for advertising space, where they show their services and products, in order to attract new

customers. Marketing teams of each company are trying to present products that offer in the best way possible, by creating flyers, TV and radio commercials, advertising on billboards, organizing promotions, giving discounts, via online advertising and social networking, and through many other ways. We are witnessing an age where advertisements are almost everywhere, whether we are strolling down the street or sitting in our home, we can almost always see advertisements, consciously or unconsciously.

With the rapid development and continuous improvement of technology, electronic devices such as computers and mobile phones have become essential part of our lives. In recent years, we have noticed that modern mobile phones have become a substitute for a computer, because they are small and can fit in everyone's pocket. Development of mobile phones has changed their purpose. Now, mobile phones are not just devices designed for talking and sending text messages, they can also execute most of tasks that can be executed on the computer, for example browsing the web, reading emails, watching videos, listening to music, recording and painting, reading books, and many others.

Users of mobile phones

From the late 20th century, since the mobile phone was invented, number of users massively grows every year. The mobile phone has suffered a multitude of changes and improvements, changing form, increased autonomy, performance and adding new features compared to the first mobile phone that were very expensive and used only to talk and exchange text messages (Kato et al., 2010). Today, the mobile phone is widely available and within everyone's acceptable price range, which is also one of the reasons for the constant increase in the number of users.

Figure 1 depicts countries that have most mobile phone users. Countries with the largest population in the world certainly have the most mobile phone users. Leading country from the aspect of number of users of mobile devices is China.

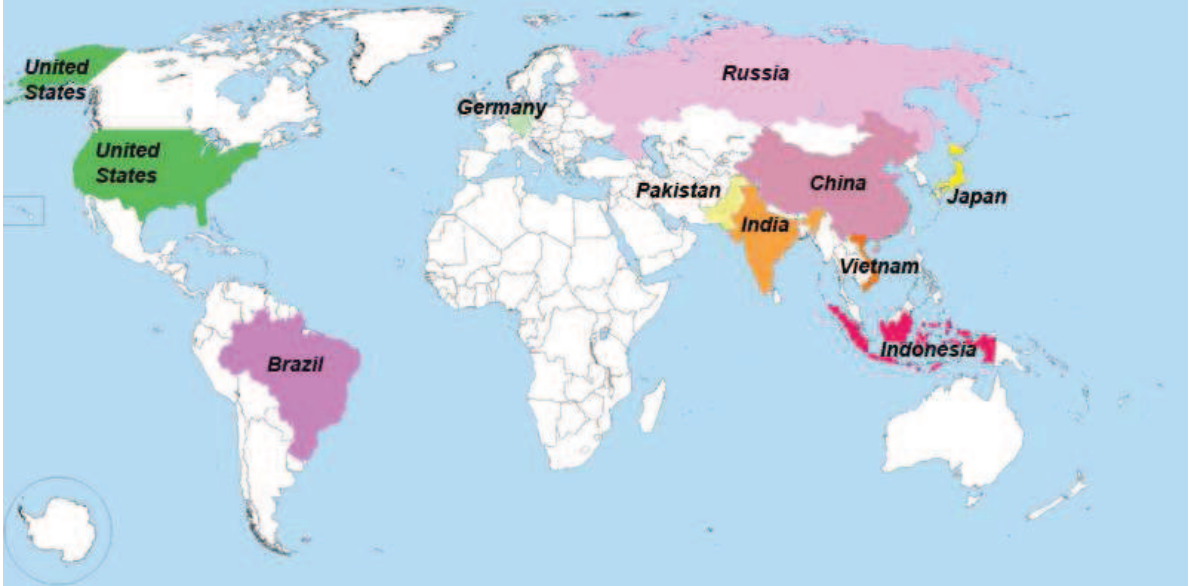












Figure 1: Top ten countries with highest ratio of mobile phone users

Table 1 shows the top ten countries by number of mobile phone users compared to their population. The number of mobile phones per resident of the country is not constant. In some countries there are residents with two or more mobile phones, and in some countries there are people who do not have a mobile phone.

Table 1: Top ten countries with highest number of mobile phone users in world

Rank	Country Name	Number of mobile phones users	Population
1	 China	1,227,360,000	1,349,585,838
2	 India	1,104,480,000	1,220,800,359
3	 United States	327,577,529	350,000,000
4	 Brazil	271,100,000	201,032,714
5	 Russia	256,116,000	142,905,200
6	 Indonesia	236,800,000	237,556,363
7	 Vietnam	154,000,000	94,013,200
8	 Pakistan	130,583,076	188,854,781
9	 Japan	121,246,700	127,628,095
10	 Germany	107,000,000	81,882,342

Most common users of mobile phones on the basis of age

According to the research conducted by Nielsen Informat Mobile Insights for 2013 most frequent mobile phone users are young people (Nielsen Nielsen Web Site Research, Last Visited 03.02.2014). Age range of users is divided into 6 groups. The age range of research mentioned above is shown in Figure 2. Research finds that the age most frequent users of mobile phones are between 18 and 24 years.

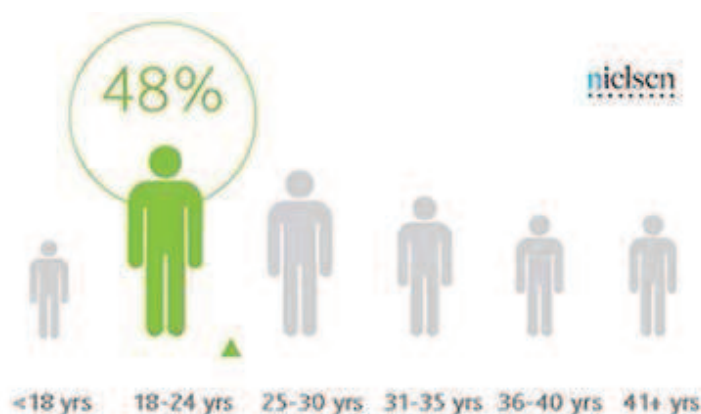


Figure 2: Most common users of mobile phones

Most popular operating system for mobile phones

According to the research by Nielsen conducted the majority of users have a mobile phone with Android operating system. The multitudes of free applications for Android platform that can be downloaded from Google Play services have made this operating system the most widely used operating system for mobile devices. Android is released with Apache and Open Source license, and everyone can make their own Android applications and publish them on Google Play service. This Google politics made Android a leader in operating system for mobile phones. Figure 3 shows division of most popular operating systems for mobile phones.

For each of these operating systems there is an application that allows your phone to read QR codes. These QR codes are so popular that a mobile phone manufacturer, with a mobile phone, delivers an installed application that can read QR codes (Dutson, 2012). In that manner, users can, immediately after purchasing a mobile phone, at any time read QR codes.

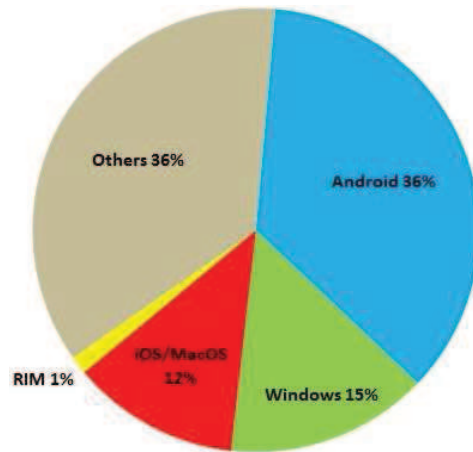


Figure 3: Most popular operating system for mobile phones

HOW TO CREATE AND READ QR CODE

There are lots of different ways to create QR codes. The most common method is to use an online free generator. We have chosen the ZXing generator, because it quite easy to use. To create a QR code with the ZXing generator you will need to follow these steps.

Go to the <http://zxing.appspot.com/generator/>. Use the Contents box to choose what sort of information you want your QR code to contain. Choose Contact information. Fill in the details you want your QR code to hold. Although you can enter as much or as little information as you like, including less information will result in a QR code which is easier to scan. Choose the Barcode size you want. You can experiment with this to get the right size for your own application. If you are not sure what size to use, choose large. If you need to, you can always make the QR code smaller later on. Click Generate and a few seconds later your QR code will appear as shown in Figure 4.

The screenshot shows the ZXing generator interface. On the left is a form with the following fields:

- Contents: Contact information (dropdown)
- Name: Miodrag Seslija
- Company: (empty)
- Title: Example for EMC 2014
- Phone number: (empty)
- Email: misa_zr@hotmail.com
- Address: (empty)
- Address 2: (empty)
- Website: (empty)
- Memo: (empty)
- Encoding: vCard (dropdown)
- Barcode size: Large (dropdown)
- Error correction: H (dropdown)
- Character encoding: UTF-8 (dropdown)
- Generate button

On the right, a QR code is displayed. Below it, the URL for downloading or embedding the QR code is shown: <http://zxing.org/w/chart?cht=qr&chs=350x350&chld=H&choe:>

Below the URL, the vCard data is displayed:

```
BEGIN:VCARD
VERSION:3.0
N:Miodrag Seslija
TITLE:Example for EMC 2014
EMAIL:misa_zr@hotmail.com
END:VCARD
```

Figure 4: Creating QR code with ZXing generator

If you want to read the QR code you need to install the QR reader application for your mobile phone. If you do not have any type of QR reader application, you can download and install the

application on Google Play (Android), App Store (iPad / iPhone), Windows Phone Marketplace, BlackBerry AppWorld or other. After installation of the application, run it, point the mobile phone camera towards the QR code and the program will detect it and show you the contents of scanned QR code.

APPLIANCE OF QR CODES IN ADVERTISING AND MARKETING

QR business card

With the Internet making business profiles, reviews, and price comparisons it is hard to make someone really take the time to listen to why you are the obvious choice. Adding a QR code to your business cards could really make you stand out from the competition (Hegen, 2010; Westermann, 2013).

Typically, a business card will give the name of the company, the particular person with whom you are dealing with, and their contact information. Perhaps they might have a small area to very briefly describe what the business does. As far as promotional materials go, most people would agree that business cards are not the most effective promotional materials, but mostly used to provide contact information.

With a QR code incorporated into the design of your business card you can now have the option to give your potential client so much more information. Perhaps you can provide them with a video commercial for your business. Instantly provide them with comparisons of you and your competitors to immediately show them exactly why you are the best choice. Or maybe you could include audio files that give testimonials for your business. A document file showing business reviews, awards and/or achievements would be another way to stand out.

With the economy being in a recession and competition being stronger than ever, your potential clients will be intrigued by the novel idea of learning everything about your company by the simple process of print, click, and scan. QR codes are a great way to turn basic business card into highly effective promotional materials.



Figure 5: Example QR business card

How to use QR codes to promote your company

QR codes are becoming a great tool to help promote a business. Businesses that are using QR codes have a marketing edge over their competitors that are not using QR codes (Patterson, 2011; Roebuck, 2011).

Ideas to promote your company with QR codes

- placement on business cards
- linking to coupons
- linking to the social network on Facebook, Twitter, LinkedIn or a website of your company
- contact information of the company or employee in company
- placement on marketing materials (billboards, T-shirts, pens, notepads, bags and others)
- linking special events to a QR code, such as special sales or promotions

- linking the QR code to Google map coordinates of the location of the company
- link to a video providing information on the company
- any other information on the business, products or services offered by the company, or on the individuals involved in the business

Advices for QR codes of your company

- Make them easy for the customer to scan. Place them in areas that are easily accessible and easy for people to stop for a few seconds and to scan the QR code.
- Teach your employees about QR codes. If you have a QR code physically in your place of business, make sure your employees know about it in case a customer asks about it. An employee should have a general knowledge of how to scan QR codes and how to download a QR code reader application if a customer should need assistance (Winter, 2011; Sansweet, 2011).
- Help the customer. Don't make a QR code just to make a QR code. Make it useful. Make some for advertising, but try to incorporate a way to help the customer.
- Pay attention to responses to the QR code. See which QR codes they are making use of, and which ones they are ignoring. If the QR codes are not useful, get rid of them and make useful ones.
- Make sure QR codes are up to date. If a customer or potential customer takes the time to scan a QR code, it should take them somewhere or give them some information on their phone. If a URL that you linked a QR code to is broken, it reflects poorly on your business and wastes the person's time.
- Place on marketing materials. Once people read a flyer, they often forget about it. By having a QR code placed on the flyer, the person can scan the code, and have all the information from the flyer and more about the business saved in their phone for future reference (Hamilton et al., 2013).

CONCLUSION

QR codes are often used as a bridge between offline and online locations. For instance, putting one on a restaurant menu or in a shop window, or on products can help bring customers to your website. Businesses should use QR codes because they represent a fantastic marketing opportunity that will delight the growing community of mobile phone owners, helping them to find your information more quickly.

QR codes are spreading because they are quick, convenient and easy for the consumer. For businesses they are simple to set up and can be generated for free which represents a great new way to interact with your customers. Results are easy to track and at any time you can quickly adjust your marketing strategy based on what works best.

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NEW SOFTWARE FOR THE HEAT TRANSFER

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ABSTRACT

Vertical thermo-siphon re-boilers are often used in the chemical industry, especially in petrochemical facilities. Many authors have dealt with the estimations of the pressure drop and heat transfer in these devices. This work will present a program and estimation of the vertical thermo-siphon re-boiler, using the FORTRAN77 programming language that is based on the method of Sarm and al. Unlike previously proposed approaches and the literature this method in the estimation of the pressure drop in pipes apparatus, takes into account the mechanism of the two-phase flow. The results of the program are analyzed in detail and discussed in the exploitation of real examples.

Key words: software, heat transfer, pressure drop, vertical thermosiphon reboiler

INTRODUCTION

Evaporators are devices in which the transformation of the liquid phase into the gas phase occurs from one side of the surface area for heat exchange. We can divide them as follows: Boilers for stoking, Evaporators without stoking. Evaporators without stoking: Generators without steam, utilization Boilers, Evaporators in a broader sense, Evaporators in the narrow sense, Re-boilers.

Evaporators in the narrow sense: evaporators in power plants, evaporators. Re-boilers: can be classified according to the mechanism of fluid flow in them: natural convection, forced convection. Natural convection: with the steam space, with the immersed body, Thermo-siphon, Forced convection: horizontal, vertical. Re-boilers with natural convection - the movement of fluids is achieved on the basis of the difference of the density of the liquid in supply pipe tubes and liquid vapor mixture in the pipes of the re-boiler. This category includes re-boilers with the steam space and the immersing heating body; it is used to generate saturated and superheated steam.

Thermo-siphon re-boilers - this type of device is often used in: the horizontal orientation of the pipe, the vertical orientation of the pipe. Characteristics of the horizontal thermo-siphon re-boilers: the heating medium is usually water vapor, fluid movement is the natural convection. Sketch of the vertical thermo-siphon re-boiler is presented in Figure 1.

Suitable for operation: under vacuum, at atmospheric pressure, at elevated pressure. Structures: one approach of the fluid through a pipe, inlet of the heating media on top (in the mantle), pipe diameter 25-50mm, height 2.5-3.7 m, inlet pipe: approximately 50% of the surface intersections of all pipes (reduces the tendency of the unstable flow in the re-boiler) alternatively silencer is used in the inlet pipe, provides $P_{\text{stis}} > P_{\text{potp}}$, increasing the resistance of the silencer improves deposition of impurities, liquid in the re-boiler is maintained at the height of the upper pipe sheet, for the operation under vacuum: height of liquid is 30-60% of the pipe.

THERMO-SIPHON RE-BOILERS WITH BOILING IN THE VERTICAL PIPES

The vertical thermo-siphon re-boilers play a major role in chemical process industry and require complex calculations in order to obtain optimal devices. During the fluid flow through vertical thermo-siphon re-boiler VTR the heat exchange occurs with the appearance of boiling. Then several mechanisms of the mixture flows can occur that depend on the speed of flow, the physical characteristics of the components, pipe diameter and their orientations. In thermal hydraulic calculation VTR attention is paid to the heat transfer and the transfer of momentum but with limited reach of liquid.

Types of two-phase flow mechanisms that are encountered during the time of passage of the gas-liquid mixture through a pipe of the vertical thermo-siphon re-boiler are:

1. Blister (bubble)
2. Piston (Slug)
3. Annular
4. Misty (Mist)

These flow regimes also occur at higher vapor of the mixtures. Piston flow (unstable state of the regime of mixture flow) preferred to be minimized. In an extreme regime of two-phase flow (mist flow), which is an extreme regime of two-phase flow, the heat flux is very small and should be avoided. Calculation of VTR requires a good knowledge of different types of flow regimes, the conditions of their beginning and region of the event. There is no completely satisfactory method in the open literature for estimation of the regime of two-phase flow in the vertical pipe.

Griffith, Walls and Govier showed the diagram to identify the flow regime. Orkizewski (1967) using a large number of experimental data of the vertical flow and the results of Griffith, Wallis. Dunn's Ross and I Nickli formed a dimensionless numbers and correlations for two-phase flow regime identification..

THE MECHANISM OF FLOW IN A VERTICAL THERMO-SIPHON RE-BOILER

Figure 2 shows a sketch vertical thermo-siphon re-boiler and the connection of the re-boiler with the distillation column. The liquid from the distillation column (intersection A) flows through the inlet prong of the heat exchanger and is supplied into the bottom of the channel and is distributed evenly through the pipes. The pipes are heated by means of heating medium, which flows through the layer of the re-boiler. The process fluid in the pipes is below the temperature of boiling due to the effects of static pressure, hydrodynamic losses in pipes as well as due to heat loss. Input fluid in the pipes of the re-boiler receives first noticeable heat. It takes place from point B to point C, where the temperature of the liquid reaches a saturation temperature on at the appropriate saturation pressure. Length B-C in Figure 1 represents the length of the zone of the noticeable heat. The evaporation of the fluid starts in the C point and mixtures of fluid and gas continue to flow through the rest of the length of the pipe. Length C-D in Figure 1 is the length of the two-phase region. The length of D-E is horizontal adiabatic two-phase flow.

The pressure drop The total pressure drop in the system is the result of input from three effects: static drop, pressure drop due to friction, pressure drop due to the increase of the speed of the two-phase gas-liquid mixture (acceleration).

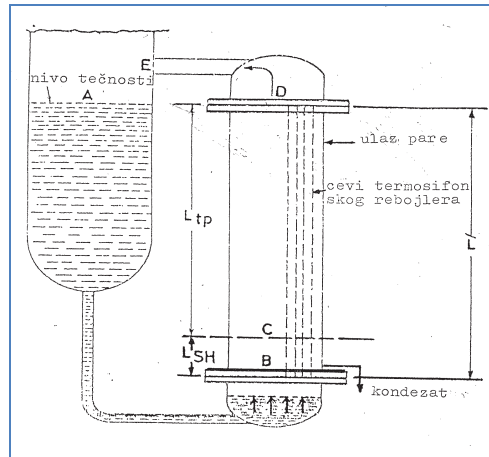


Figure 1: Vertical thermo-siphon re-boiler

For a system with specific physical properties, heat flux and pipe geometry, the flow through the pipes of the exchangers is controlled by the balance of pressure of the input and output branches (between A-E and B-E in Figure 2.). It is necessary to calculate: The total pressure drop in the pipe exchangers (B-D) and Pressure drop at the inlet and outlet of the pipe (A-B, D-E).

Heat transfer Flow of the gas-liquid mixtures through pipes of the re-boiler is not continuous but pulsating. Amplitude of pulsation is controlled by heat transfer. At high values of heat flux, pulsations amplitude is high enough to suck in the vapor into the part of the liquid and that is called a locked vapor. This is called the agitated lane by Lee and it corresponds to the permitted maximum heat flux.

TWO-PHASE LIQUID-GAS FLOW IN THE VERTICAL THERMO-SIPHON RE-BOILER

Characteristics of two-phase liquid-gas flow

Configuration of two-phase flow is much more complex here than the configuration of the single-phase flow. Two-phase flow is of great importance for: the pressure drop in the fluid which flows and heat transfer in the flow. Way of flow depends on: the geometry of the system (pipelines, ducts), the flow of liquid and gas phase, thermo-physical properties of all fluids, operating conditions (flow, temperature, pressure, heat flux).

Table 1: Heat transfer in the two-phase flow

Area	Description of events
A	Convection of water in the liquid (saturation temperature lower than the boiling temperature)
B	The appearance of the first bubbles on the wall (condenses in the cooled core of the liquid)
Limit * B-C	End of condensation in cooled liquid, $x=0$ bubbles continue to persist in the liquid
C**	Saturated nucleation boiling (bubbly flow)
D**	Saturated nucleation boiling (piston flow), In the area of piston flow boiling process, Bubbles are interchanged by the evaporation process, Pistons, Beginning of the annular vapor flow through the pipe and the flow of fluid on the pipe wall
E**	The annular flow - increased proportion of the gas - convection forced through the liquid
F**	The annular flow with drops sharp increase in the proportion of the gas
Limit **	The critical proportion of the gas

The identification of a number of typical forms of two-phase vertical upward flow. In order to show the results of observations of some forms of two-phase flow, the flow regime maps are established whose coordinates are suitable functions of the flux for each phase. The lines on these maps indicate the boundaries of areas in which certain regimes can be expected. Flow regime maps are still subjective with uncorrelated coordinates.

EXISTING METHODS OF CALCULATIONS OF THE VERTICAL THERMO-SIPHON RE-BOILER VTR

Several methods of analysis are available, but one of the first who published works on this topic were Fair and Hughmark. Fair's method provides procedures for the calculation of pressure drop and heat transfer along the entire pipe exchangers, using the increment of the proportion of the gas phase and the correlation developed by Lochart-Martinelli for two-phase flow. The method includes the calculation of proportion and errors using a series of diagrams. Using Lochard-Martinelli parameter Fair thus does not introduce the factor that would accurately encompass vertical flow so Davids proposed Froude number thus modified the previous method. The correlation for the calculation of fluid retention is given in the expression of Lochard-Martinelli parameter, and is valid for the mass flux greater or equal to 567 kW/m². For the mass flux less than 567 kW/m² deviation of the Lochard-Martinelli parameter is a function of the total mass velocity. This method represents the isothermal conditions in the pipe exchangers and constant difference between the temperature of the pipe wall and the fluid. Correlation for calculating the coefficients of the transfer of the boiling heat is Hughmark's and is more or less similar to Fair's. Bankof's modified correlation was used to calculate the retention of fluid and gas. Chensho's correlation explains the effect of flow on the boiling rate/speed, and was used to calculate the hb coefficients. This correlation takes into account the changes in physical properties. The above method does not consider the different flow regimes for the calculation of pressure drop and heat transfer.

CALCULATION METHODS OF THE VERTICAL THERMO-SIPHON RE-BOILER

This method proposed by Sarma (1973), is based on consideration of the two-phase flow regime during the calculation of the pressure drop and heat transfer coefficient. Calculation of heat transfer can be divided into estimating the nucleation boiling and convective heat transfer coefficient of notable heat zone and the two-phase region. The equations proposed by Orkizewski (1967) for vertical two-phase flow are used in the proposed method. Orkizewski (1967), made an analysis of the results of Griffith, Wallis, Duns and Ross (1961) pressure drop to their data bank of petrochemicals and selected the best models. Orkizewski (1967), developed relations for the pressure gradient, two-phase density and acceleration expression for a given flow regime.

CONCLUSION

This paper presents the results of programs written in FORTRAN77 programming language for the design of vertical thermo-siphon re-boilers with boiling in pipes. Thus, starting from the block diagram and a set of model equations for the calculation of pressure drop and heat transfer, which are taken from the literature (Sarma, 1973), it was necessary to establish an appropriate algorithm. Written program has been tested on the example of boiling propane in a wider range of process conditions (heat transfer, vapor phase composition at the exit of the device) as well as a series of geometric characteristics of the device (pipe diameters and lengths). The results are satisfactory agreement with the corresponding values from the literature (Sarma, 1973). Bearing in mind that the convergence criteria are input data to the calculation, as well as the fact that their values are not listed in the literature (Sarma, 1973) in this paper the ranges of their numeric values are defined by systematic usage of the software. All the data on distribution of heat flow, pressure drop, distribution of heat transfer coefficients and the proportion of gas and liquid phases by the height of

pipe are shown in detail. Based on this, conclusions can be made about the length of each zone of the two-phase flow. The results from this study were compared with values from the literature (Sarma, 1973), and by using the graphic way. This comparison shows that there are different degrees of matching results depending on the calculated value. One possible reason for obtaining a deviation could be attributed to possible errors in the model equations that could not be verified because of the unavailability of the literature. This possibility is pointed out by the facts that we have learned on a few incorrect model equations which will, luckily, be removed. In this sense, further work on this model could include a more detailed check of the model equations according to the original literature. The algorithm and the program that was used in this study provide a good basis for their further development in order to broaden the application of multi-component system.

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THE IMPORTANCE OF ELECTRONIC COMMERCE BUSINESS MODELS

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ABSTRACT

Looking around us and monitoring the world today it can be concluded that the changes occurring in the every aspect of our lives are drastic and visible. The business ambient for the companies is changing and dynamic and no-one can predict for sure what is going to happen tomorrow. The competition is growing stronger, faster and it lurks every opportunity to materialize. The initial idea for writing of this paper is question to which extent the growing of the market will continue, to which extent the new form of competition will be developed, how much science and technology can progress, where is the end of strong growth of electronic technology and is there any end at all. We are all witnesses that the technological process affects the humanity strongly, thus affecting the way of life, work and business. Under the strong influence of IT, without which it is impossible to imagine the nowadays world, the e-commerce was developed, including its two main business models, B2B and B2C, as well as numerous combinations of others.

Keywords: E-commerce, Business models of e-commerce, B2B model, B2C model, safety of e-commerce

INTRODUCTION

Electronic business is ever more present worldwide and it influences lives and work of many people. Companies adjust to the new situations. The ones that easily adjust may count to success, and the others will literally disappear from the market. Business models of electronic commerce are being implemented throughout the world, and Serbia is no exception. It is necessary to explain the role and importance of electronic business on business development models, to show its essential part. Afterwards, the attention is directed to business models that simply concord with all parts of business and social life of the people and organizations. The accent is given to two most important models, that are simply unavoidable and everyone has met that way of electronic commerce at least once, although one may not be aware of that.

After presenting the business model facts, the attention should be focused on a very important segment that is very present nowadays, and that is the safety. The safety is the object of attention of all countries, in the sense of The Internet user protection and also protection of the companies that are involved in information and data exchange and paying by electronic devices. A new business area has attracted and formed a new criminal milieu. It is impossible to speak of new technology implementation in e-commerce if all business conditions are not defined. A new way of doing business requires new rules, new infrastructure, and that demands significant financial investments. Since all the effort is directed towards users of these business models, it is necessary to provide easy and simple usage with the possibility of tracking users' behavior and their satisfaction with electronic commerce transactions.

Based on satisfaction results, future steps in business model should be planned. Of course, the critics can not be neglected, since information provided by critics may be more valuable than the

others. Electronic commerce in Serbia is at the low level, and it is necessary to take actions to fully implement this way business. Besides that, the safety of The Internet transactions in Serbia is not satisfying. Frauds and giving false information about products and services are not rare. Business models of electronic commerce are more and more present, and there are more and more web sites of companies. A lot of them are ready for B2C exchange while many manufacturers and retailers use B2B model which is more requiring but brings greater benefits.

Electronic infrastructure is subject to numerous attacks. Each of them may cause business deadlock and losing a great deal of users and profit. A set of rules about all safety activities of company is so-called safety services. Each company should have appropriate safety politics.

ELECTRONIC COMMERCE DEVELOPMENT AS AN ASSUMPTION OF BUSINESS MODELS FOUNDATION

Just twenty years ago, hardly anyone would be so optimistic about human society development, i.e. development and changes have happened in all areas of our lives. The most prominent changes are in information technology sector. The life cycle of one product has shortened rapidly, and that tendency is continuing, and it is expected to continue in the future too. Electronic commerce development has begun in early seventies in the past century. Business applications known as electronic transfer of funds are introduced in big corporations and some of the small companies. Using EDI has widened a number and types of companies that participated in this business.

Electronic commerce has been increasing and expanding each year, it has broken bondages and it has an envious position nowadays, especially in developed countries. They invest great amounts of money for information sector development. Having in mind the improvement of telecommunications, information technologies development, and globalization process that erase borders between different economies, all lead to internationalization and contributes to world to be "a big global village", it is clear that it has been a good basis for business models foundation. Without substantial development of electronic commerce there would not be many of business models. Many companies have realized on time the significance of modern technologies and by their implementation they have obtained many competitive advantages.

The speed, the process of worldwide globalization, the improvement of productivitz, reaching new clinets and the sharing of knowledge amongst institutions and organizations in order to achieve a competitive advantage, are all terms which determine electronic commerce, according to the words of IBM's CRO Lou Gerstner (Varagić, D. Tošić, D. 2003).

As it is said, electronic commerce is a significant assumption for business models, and important factors of electronic commerce constitution are networks – infrastructure of electronic commerce. The most important for business models functioning, especially between two firms, have VAN or private nets. Business models owe their existence to VAN net. We may say that it is computer net with charge (Value-added networks, VAN). The question is which way is VAN connected to business models. Simply, it is private net that offers network services and charges its services. VAN are convenient and we may meet them more often in companies that do not want or do not have enough money for investments, or can not maintain expensive infrastructure of private WAN network.

If we observe information flow in electronic commerce, we may see that individual users may electronically order products and services from on-line retailers that use different information and communication technologies in their business. This way they can connect with their providers and distributors. Electronic paying system can be used in B2B and B2C models of electronic commerce.

We can not talk about solid based business models, and not to touch a relation between business subjects and banks. Banks have a prominent role, since they have to track transactions between electronic business participants. The three most important activities of banks as indirect participants in business models are (Laudon, 1999):

- Credit ability checking
- Authorization of paying
- Electronic transfer of assets

E-COMMERCE MODELS BASED ON THE RELATIONS BETWEEN THE PARTICIPANTS

With the fast Internet development and information technology, business models have reached unexpected domains. Business model is a method planning and managing business in a way that brings profit to a company and indicates its place in market chain. Each company tends to take a good position on market and also in consumers' and other stakeholders' minds. Electronic transactions may be performed between the three parties: government, companies and buyers.

Communications between companies and final users provide two the most important models:

- B2B – business to business model, automates information exchange between two organizations;
- B2C – business to consumer model, a relation between manufacturer and consumer.

The further text concentrates on these two models.

The essence and importance of business to business model (B2B)

One of the most significant business models that is present in today's world and has great results is B2B. The definition of this model is that is an automate exchange of information between different companies or corporations, and within one company or corporation. We may say that it is about business transaction by The Internet, extranet, intranet or private networks. Basic characteristic of business model is the intention to automate processes due to more successful doing of business. B2B strategy is focused on practice implementation of available data, like value of change mapping, size and possibilities for revenues from goal industries, defining concentration of company and price sensitiveness estimations.

Companies are forced to open their applications to consumers and partners. It is as simple as that because electronic commerce has progressed and the number of Internet users continuously increases. Such a way of focusing on the consumers companies see as offensive strategy. B2B electronic commerce provides to business people a great opportunity to increase revenue, productivity, to save money, reorganize inefficient business flows and to improve control of all processes connected to useful and timely adequate contact with buyers. One of the most shocking facts that confirms the significance of B2B models is that Dell company achieves higher profits on-line, comparing to McDonald's. This model gives an opportunity for companies to make electronic transactions to their distributors, sales staff, providers and the other partners. The fact is that e-commerce incomes are greater in B2B models, although the number of B2C applications. This model enables making new relations and finding new business partners. Successful companies' business can not be imagined without the adaption of this model of electronic commerce.

Starting point of the B2C model and its importance in the modern business

A model that will have even greater expansion is the B2C model. Business-to-Consumer commerce is one of leading forms of on-line business that is oriented to individual consumer (Končar, 2010). The most characteristic is contact between retail trade and consumers. B2C model is a sale of

products and services to final consumers on The Internet. An example of the business is product or service retailer's web site. The Internet users more and more often relate to web as to market space. In preparation phase of buying, consumers study the offer, are devoted to certain sites, use on-line services and, buying this way, they take care of finances. Buyers may compare prices and check availability of products on different sites, and that is much cheaper and easier than touring from store to store. It is priceless in era of globalization and shortage of leisure time. There are software and sites that offer possibilities of researches of great number of on-line stores for some product or service, and informing consumers about the place where some product or service may be bought. Many experts estimate that B2C model will have faster development in comparison to B2B method, in a year or two. Business systems of nowadays have created a new, disloyal and well informed consumer, so an average on-line consumers is in much better position than off-line population. It is the fact, since today's consumer may find all needed information before actual buying.

The actual survey done at the Faculty of Economics in Subotica informs us about the prevalent attitudes of the participants in the B2C business model. The sample of 200 participants gave us a set of interesting data, and the survey was done via online inquiries, i.e. via social networks. The questions were targeted towards getting information on whether the students ever bought online, which products are these, will the e-commerce replace the traditional commerce, what influences the growth of the e-commerce. The five-grade scale was used. The analysis has proven the following:

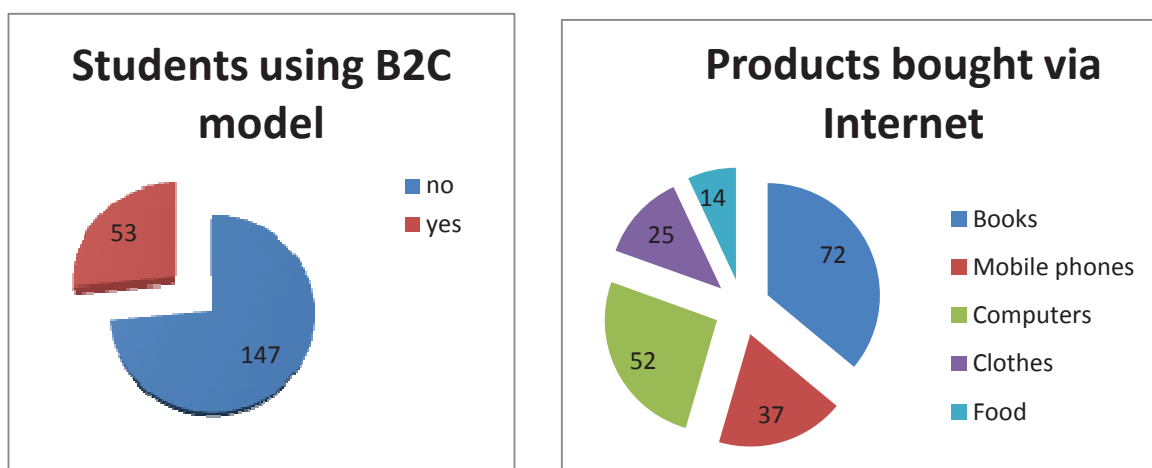


Figure 1: The results of the survey at the Faculty of Economics, Subotica

We can see that about 26% of the students bought some product online, which is a small number in comparison with the worldwide average and trends, but for our circumstances it is way beyond some of the average results. The reason for that is the higher level of education of the younger population, the inclination towards IT and more frequent contact with it. The structure of the products shows that we buy books and standardised product most often, and the most surprising fact is the high percentage of mobile phones (18%). That kind of trade requires more assets and the key to the great percentage of online buying are ever more numerous and better organised websites for e-commerce, which quickly deliver to the home address. To questions considering the growth of B2C model application, the attitudes of the participants testify that the fast growth of the technology (46%) causes the increasing use of B2C model, while working hours and the possibility of 24/7 buying are the next influential variables. The constraining factors of e-commerce in Serbia include the following answers: we do not have such buyers' habits (52%), lack of accessibility (17%), irreplaceable feeling of shopping (16%), and the rest of the factors that have smaller influence. Generally speaking, the prevailing attitudes are that the B2C model will not replace

classical commerce, but there will be significant improvement. The younger population is readier for such type of trade, certainly worldwide, and increasingly in Serbia.

SAFETY AS AN IMPORTANT SEGMENT OF BUSINESS MODEL DEVELOPMENT

When doing any business, it is important to ground rules and foundations that would influence business safety. Business safety in business models must obtain a special attention, since it is one of the most important conditions for success in business. Many companies make significant investments to protect their buyers, data bases and transactions. Abuses and breaks in the Internet technology bring economic consequences – financial losses as results of fraud, business losses due to service unavailability, losing of valuable and confident information, unauthorized resource utilization and costs caused by uncertain business conditions. Electronic commerce brings certain risks that can be avoided by using some safety measures. Each company wanting to be involved in electronic business must possess a certain set of safety measures. Aside from traditional e-Commerce, m-Commerce as well as the nascent t-Commerce channels is often seen as the current 2013 poster children of electronic I-Commerce (Hacon, 2013).

The practice has pointed out that there is no protection level of commerce transactions that is sufficient, and that limits are always possible to be broken if company invests enough money. Sometimes, when we speak of commercial data, it is necessary to protect information for a several days, months or years, because of time actualization of data.

CONCLUSION

Having in mind all previously presented in this paper, the conclusion should be given as the fact that electronic commerce business model development has become incontinent, taking a great part of total commerce. There are more and more companies that do business that way and obtain their revenues. By its significance and turnover B2B model is far ahead of all others, but we may expect the rise of other models due to the social network development.

Social networks offer information exchange at the lowest price and it became a tendency that was more present. The globalization process that makes us look one like another has entered every part of our life and has forced us to except this way of doing business. Not only that we can not oppose, but every resistance and distance from new technologies makes us outdated in every way. This technology progress is good, but it is questionable if that extreme progress is good as well, or maybe it is too fast and the nature will decide to punish us somehow. It is clear that people destroy the world around them, due to their cosiness.

The Internet buying is a disturbing force for retail sale and wholesale too. With the growth of EU, we may expect more Internet users and the prosperity of the aforementioned business models. An important thing is improvement of participants' awareness of this business model's importance, so we will have well educated, capable and informed participants. Ethics and moral approach should be put before economic benefits of electronic commerce.

As for Serbia, a vision of the e-trade exists, and the prevailing attitudes of younger participant in surveys (students) are confirming such development. They are increasingly ready to buy online. As new generations grow mature, surrounded by the world filled with IT, we can expect growing inclination towards this marketing channel. In Serbia it is however only in the initial phase, and the real blossom of the e-trade can be expected in the years to come. It is important to notice that even in the world e-trade has not achieved such success that had been predicted previously.

However, the general opinion is that there will be a new progress, but not on the account of classic commerce. Business models of electronic commerce have bright perspective due to their dynamics, turbulent ions and prosperity. Electronic trade is incentive of all economics. Business models of

electronic commerce are just one more opportunity in creation of more successful and competitive economy, and that is for certain a goal of Serbia.

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**Session G: ENVIRONMENTAL AND SAFETY MANAGEMENT
SYSTEMS**

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INDICATORS OF SAFETY REPORTING EFFICIENCY IN INTEGRATED SAFETY SYSTEMS

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ABSTRACT

In this paper, the indicators for assessment of safety reporting efficiency in integrated safety systems are proposed. Integrated safety system as a complex system needs adequate mechanisms for management, control, and reporting, as well as for benchmarking the achieved results. The model for assessment of reporting efficiency consists of indicators classified into four groups that describe technical and technological, human, organizational and environmental effects on the efficiency of reporting. The list of initial indicators for every group is proposed. This list is neither complete, nor final; it can be further expanded with new indicators. The model proposes hierarchical structure that can be used as a basis for multi-criteria assessment, selection of key performance indicators, ranking of factors and indicators, as well as evaluation of effects of a single indicator or factor.

Key words: collaboration, integrated safety system, performance indicators, analytic hierarchy process (AHP)

INTRODUCTION

Safety processes are supporting processes that significantly affect organizations' business performance, where experts from different fields perform safety related activities whereas most employees are involved in interaction and collaboration activities (Janačković, 2013a). Safety is a form of organizational expertise or a form of organizational knowledge that is created in an organization by collaboration among different actor, and the main problem is how to efficiently accumulate and share knowledge on safety and previous experience of employees, as well as data on workplace accidents, incidents and hazards. Social character of learning on accidents and knowledge situated in work activities initiated the idea of learning on safety as a collaborative and social activity within communities of practice, where individuals enhance competencies and expand their knowledge (Nicolini & Mezner, 1995; Gherardi & Nicolini, 2000; Janačković et al., 2012).

Communities of practice can be slightly different among specific industrial sectors or application domains, and in the domain of safety, the aim is to reduce negative effects of illnesses, injuries and deaths on countries and organizations. Safety system as a complex system needs to provide efficient communication and collaboration mechanisms in order to avoid problems in coordination of actions, and to increase efficiency, reduce cost and risks. Efficient integration also needs efficient communication, cooperation and coordination mechanisms (Janačković, 2013b). Among others, provision of feedback information on working environment conditions is stated as one of the most important factor of efficiency of integrated safety system (DOE, 2011).

In this paper, the indicators for assessment of safety reporting efficiency in integrated safety systems are presented. Integrated safety system as a complex system needs adequate mechanisms for management and control, as well as for reporting the achieved results. Safety in integrated safety systems is not treated as independent activity; it is an integral part of all organizational activities. Thus the efficiency of reporting and collaboration mechanisms is even more important than in the systems where safety is treated as independent organizational activity.

The integrated safety management system is important in organizations to efficiently use organizational, human and safety resources. A teamwork and collaboration are particularly important aspects in the process of management of integrated safety system, even for the safety reporting (Janačković, 2013a, 2013c, 2013d; Janačković et al., 2012, 2013). Model of reporting and documentation management about processes in integrated safety management system at organizational level imply inclusion of safety at every stage of the life cycle of the organization, and separated systems for data management have negative influence on functioning of the organization. Integration of systems enables that safety reporting grows into business intelligence on safety (Janačković, 2013b).

THE MODEL

The main function of the reporting system is to enable collecting and saving information about the state in living and working environment, and about the activities in integrated safety system. This information is used for assessing the level of safety and to initiate preventive or proactive measures in order to approve safety conditions. Systems approach is helpful in analysis a complex systems, such as integrated safety system. In order to simplify the analysis, the model of efficient reporting is proposed. It defines key factors that influence on the efficiency of safety reporting, as well as some main indicators in all groups of key factors. As presented in (Perezgonzalez, 2005), safety system consists of core elements that enable safety goal setting, selection of key activities, education and training of employees, efficient collaboration and communication, monitoring of conditions in living and working environment, reporting about the state of the environment, benchmarking and assessment procedures, and initiating preventive and/or proactive actions. In order to describe those elements of the safety system, and the efficiency of reporting, the model for description of efficiency reporting consists of indicators classified into four groups that describe technical, human, organizational and environmental effects on the efficiency of reporting.

Hierarchical presentation of the model is presented in Fig. 1. This model is presented in form of a hierarchy in order to be possible to evaluate the influence of model elements on the efficiency by means of multi-criteria methods, such are analytic hierarchy process (AHP) or fuzzy analytic hierarchy process (FAHP) (Janačković et al., 2011, 2012; Janačković, 2013a, 2013b, 2013c). The number of indicators is not limited, and the list of indicators can be extended by other indicators for special purposes and industrial sectors (e.g. mining, chemical or construction industry).

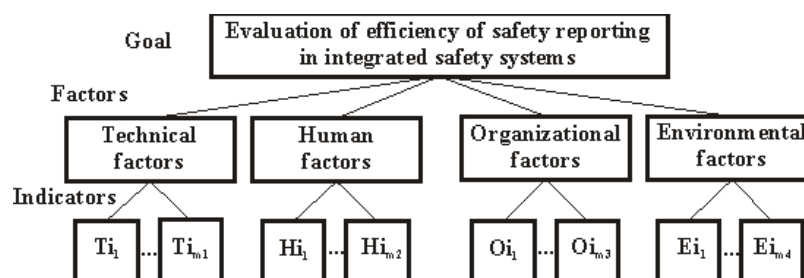


Figure 1: Hierarchical presentation of the model for evaluation of efficiency of safety reporting in integrated safety systems

The list of initial indicators for every group is proposed. This list is neither complete, nor final; it can be further expanded with new indicators.

Technical factor describe technical and technological prerequisites of efficient reporting. In the world of constant changes in technology, it is important to follow those changes as soon as possible, in order to have all data necessary to monitor technological processes and state of the working environment. Handheld devices with wireless or mobile network connectivity can help to make on site reporting. Important indicators in this class of indicators are:

- “User-friendliness” of the technology for reporting;
- Availability and failure/maintenance rate of used technological platform;
- Functionality of supporting technologies;
- Infrastructure costs of the reporting system;
- Intensity of using technology for safety reporting;
- Knowledge management technologies in the system;
- Maintenance costs of the reporting system;
- Number of protective levels in the system;
- Reliability of supporting technologies;
- Simplicity of technological platform.

Human factor describe the influence of the employers and employees on the efficiency of safety reporting. It is important to precisely define working activities and reporting activities, in order to include all employees in the process of identification of potential problems in the system, such as incidents, avoided accidents, inappropriate working conditions of technological system, identification of inappropriate working activities and/or procedures. Some most important indicators that describe the influence of human factor on the efficiency of safety reporting are:

- Degree of compliance of safety reporting mechanisms with working procedures;
- Degree of innovativeness of employees during investigating and reporting;
- Employee satisfaction index;
- Index of communication and reporting skills of employees;
- Index of personal technological and technical skills and knowledge;
- Level of teamwork of employees during the safety reporting;
- Percentage of employees actively involved in safety reporting procedures and mechanisms;
- Roles of employers and employees (leaders, supporters, initiators, observers etc.);
- Willingness of employees to cooperate with others during the report creation.

Organizational factor is very important during the implementation and maintenance of efficient safety reporting system in integrated safety systems. Usually, only direct indicators are observed and analyzed. Nevertheless, indirect indicators are also important during the analysis of the efficiency of reporting, and how organizational procedures are adapted to new goals. Some of the most important indicators that describe organizational influence on the efficiency of safety reporting are:

- Annual average number of training hours of employees for use of reporting system;
- Average experience of employees;
- Knowledge gaps among different employees involved in safety reporting at different levels;
- Number of documents on applied safety measures and guidelines for protection of employees;
- Number of documents on jobs at risk and lost workdays;
- Number of meetings of employees involved in safety reporting;
- Number of safety reporting system support persons (facilitators, initiators);
- Percentage of employees who are trained for safety reporting;
- Relationship of safety reporting mechanisms with existing organizational procedures;
- Rewarding employees for participation in safety reporting;
- The level of networking in/among organizations for safety reporting.

Very important is the influence of the environment on the efficiency of safety reporting, as neither organization nor integrated safety system is not closed system; they suffer impact of the environment. That influence of the environment on the efficiency of safety reporting is expressed by environmental factor and environmental indicators. The most important indicators from this group of indicators are:

- Formal acknowledgement in the local community and at the country level;
- Level of legislation and reporting procedures implemented;
- Level of reporting technologies development and application;
- Number of applied voluntary standards and recommendation procedures.
- Number of available databases on accidents, incidents, hazards, and avoided accidents;
- Number of available funds for development of safety reporting systems and reporting procedures;
- Number of implemented quality standards;
- Number of implemented safety standards;

These indicators describe the influence of the environment (local community, state legislation etc.).

CONCLUSION

In this paper, the indicators for assessment of safety reporting efficiency in integrated safety systems are defined, and the model of classification of indicators based on technical, human, organizational and environmental factors is defined. The presented list of indicators for all factors can be further extended with new indicators. The number of indicators can be limited if some kind of quantitative analysis is implemented; key performance indicators must be selected. The threshold could be defined for elimination of all indicators that influence on the goal less than or equal 2-3%. The large number of indicators is good for statistical purposes, but it could make problems decision makers.

Periodical analysis and control of selected indicators can help better reporting, more efficient learning from accidents and incidents, selection of more appropriate safety measures and therefore the continuous improvement of an integrated safety system. Integrated safety system as a complex system needs adequate mechanisms for management and control, as well as for benchmarking the achieved results. Reporting mechanisms can be evaluated by means of presented model and application of methods of multi-criteria analysis. The model proposes hierarchical structure that can be further used as a basis for multi-criteria assessment, selection of key performance indicators, ranking of factors and indicators, as well as evaluation of effects of a single indicator or factor.

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RANKING KEY PERFORMANCE INDICATORS OF COLLABORATION IN INTERGATED SAFETY SYSTEMS

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ABSTRACT

In this paper, the performance indicators of collaboration in an integrated safety system are presented. They can be described by means of technical, human, organizational and environmental factors. The list of indicators for assessment of effectiveness of collaboration in safety system is proposed. These indicators can be ranked, and can define the effects on a common goal - effective communication. The effectiveness of communication can be considered using systems approach and multi-criteria analysis. For the purpose of ranking indicators, the method of analytic hierarchy process (AHP) is applied. The key indicators are identified and ranked according to experts' evaluations. As the most important key performance indicators are identified communication, individual skills, culture and tasks.

Key words: collaboration, integrated safety system, performance indicators, analytic hierarchy process (AHP)

INTRODUCTION

Safety system is a complex system, for which analysis different methods can be applied. If it consists of different independent management systems, the problem of its efficiency and coordination can be appeared. The same data collection stored and processed in various systems, leading to low efficiency of the system and the expenditure of additional resources. The integration of safety system affects increased efficiency, cost and risk reduction.

According to results presented in (Janačković, 2013a), the efficiency of integration is mostly described by organizational, personal and technical aspects of integration. In (DOE, 2011), authors emphasized five core functions and eight guiding principles on integration of safety systems, based on the necessity of precise definition of work activities, hazard analysis and control, and provision of feedback information on working environment conditions. The importance of safety system integration is stated in many standards that describe safety management; important standards describe quality management, environmental management, occupational health and safety, food safety, information security and risk management. Some ideas about integration of management systems are described in (Labodova, 2004) and (Hamid et al., 2004).

The integrated safety management system is important in organizations in order to efficiently use safety resources, and particularly important aspect in the process of management of integrated safety system is a teamwork and collaboration (Janačković, 2013a, 2013b; Janačković et al., 2012). Model of reporting and documentation management about processes in integrated safety management system at organizational level imply inclusion of safety at every stage of the life cycle of the organization, and separated systems for data management have negative influence on

functioning of the organization. Integration of systems enables that safety reporting grows into business intelligence on safety (Janačković, 2013a).

In order to assess the efficiency of safety system, different multi-criteria methods can be applied (Janačković et al., 2011). Analytic hierarchy process (AHP) is especially important for its simplicity and organization of problem by means of a tree, where on the first level is a goal, the next level are criteria, and the last level are indicators or alternatives. This method can be applied, among others, for environmental aspects ranking (Malenović-Nikolić et al., 2013). Fuzzy extension of the analytic hierarchy process, where fuzzy numbers are applied instead crisp numbers, is applied for assessment of the efficiency of safety communities of practice for identification of key performance indicators of occupational safety system in road construction companies (Janačković, 2013c; Janačković et al., 2013d).

Efficient cooperation and collaboration is needed in order to efficiently use resources and achieve some personal, group or organizational goals. Although different communities exist, the problem of their efficiency and critical success factors has not been analyzed. A critical success factor in any community is collaboration. It helps participants to achieve common or complementary goals.

A framework of factors of collaborative work is described in (Patel et al. 2012). As the main factors of collaborative work in the proposed model are selected: context (business climate; culture; environment; organizational structure); support (error management; knowledge management; networks, resources; team building; tools; training); tasks (demands; structure; type); interaction processes (communication; coordination; decision making; learning); teams (common ground; composition; group processes; relationships; roles; shared awareness and knowledge); individuals (psychological factors; skills; wellbeing); and overarching factors (conflict; constraints; experience; goals; incentives; management; performance; time; trust).

The last group consists of factors that are important for all main groups of factors. Based on the model presented in (Patel et al. 2012), key performance indicators are selected and ranked by applying the analytic hierarchy method. The key performance indicators and the method applied for ranking the selected indicators is presented in the following section.

THE METHOD

In this paper, key performance indicators are selected according to Patel's model of collaboration efficiency (Patel et al., 2012). From all available indicators, experts selected key performance indicators of collaborative work in integrated safety system. These in are presented in Table 1.

Table 1: Key performance indicators of collaboration in safety systems (based on Patel et al., 2012)

Criteria	Indicators
Context (CO)	Culture (CO ₁), Environment (CO ₂), Organizational structure (CO ₃)
Support (SU)	Knowledge management (SU ₁), Networks (SU ₂), Tools (SU ₃), Training (SU ₄)
Tasks (TS)	Demands (TS ₁), Structure (TS ₂), Type (TS ₃)
Interaction processes (IP)	Communication (IP ₁), Coordination (IP ₂), Decision making (IP ₃)
Teams (TM)	Common ground (TM ₁), Group processes (TM ₂), Roles (TM ₃), Shared awareness and knowledge (TM ₄)
Individuals (IN)	Psychological factors (IN ₁), Skills (IN ₂), Wellbeing (IN ₃)
Overarching factors (OF)	Experience (OF ₁), Goals (OF ₂), Performance (OF ₃), Trust (OF ₄)

The Analytic Hierarchy Process (AHP) is used for ranking the key performance indicators (Saaty, 1980). It is a multi-criteria decision making method, that takes into account both subjective and objective factors during the evaluation process. As AHP can be used for determining priority in safety management systems (Chan et al., 2004), and performance indicators are important in

organizational safety management systems (Janačković et al., 2011), this multi-criteria method can be used to rank indicators of collaborative work in integrated safety systems. The main steps in AHP method applied to the ranking the indicators are:

- Goal identification - the goal is to rank key indicators of collaborative work in integrated safety systems;
- Identification of criteria, sub-criteria, and alternatives. Basic requirements on which collaborative work is based, according to (Patel et al., 2012) (context, support, tasks, interaction processes, teams, individuals, and overarching factors) are identified as criteria, and factors affecting the quality of collaboration (technical, human, organizational, and external environmental factors) are described by means of key performance indicators as determined by experts from the list of the proposed indicators (three indicators that describe the context, four for the support, three for task description, three for interaction processes, four for team description, three for individuals, and four for overarching factors);
- Creation of hierarchical structure - the AHP method presents a problem in the form of hierarchy, where the top level presents the goal or objective (ranking of the key performance indicators of collaborative work in integrated safety systems), the next level presents the criteria (context, support, tasks, interaction processes, teams, individuals, and overarching factors), and the lowest level presents the indicators (24 key performance indicators of collaborative work); the hierarchy consists of three levels;
- Pair-wise comparison of criteria and indicators - Pairs of elements at each level in a hierarchy are compared according to their relative contribution to the elements that are at the first hierarchical level above them; the relative contribution of each pair of criteria or alternatives to the main goal objective is described by 1-9 comparison scale, where 1 represent equal importance, and 9 dominance of one alternative over the other;
- Pair-wise comparisons at each level, starting from the top of the hierarchy, are presented in the square matrix form, in pair-wise comparison matrix with $n \times n$ dimension, where n is the number of compared criteria or indicators;
- Determination of relative weights – based on the eigenvector approach, as presented in (Saaty, 1978);
- Checking results consistency - the decision making procedure must be based on coherent judgments during the specifying the pair-wise comparison of criteria or alternatives, and the deviation of maximum eigenvalue λ_{max} from n describes the level of comparison consistency; two values, consistency index and consistency ratio are used for analysis of consistency of pair-wise comparison;
- Global priority determination - involves finding a vector of global priority, which shows the contribution of certain indicators to the achievement of the goal, i.e. to efficient collaboration in an integrated safety system; a vector of global priorities consists of relative priorities of all indicators at the lowest hierarchical level.

Avoiding acceptance of subjective opinions about the importance of indicators is important. The problem should be systematically considered and thoroughly examined during the model creation and weights estimation. In this paper we propose ranking of key performance indicators of the quality of collaboration in integrated safety systems based on their influences by means of the AHP method (Saaty, 1980; Savić & Stanković, 2011; Roland & Moriarty, 1990). The hierarchy for the decision making for the AHP method is presented in Figure 1.

Criteria and indicators are compared in pairs, and corresponding pairwise comparison matrices are generated. Based on the AHP method, and eigenvalue principle, weights of criteria and indicators are calculated. The results of pairwise comparison and corresponding weights of criteria and indicators are presented in the following section.

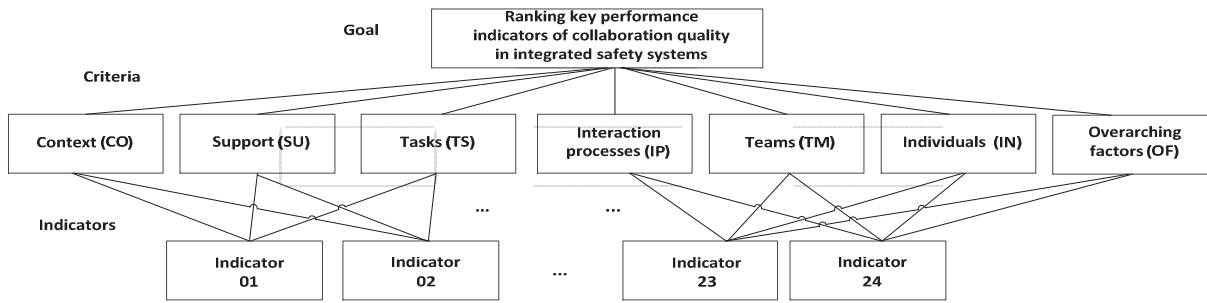


Figure 1: AHP hierarchy for ranking key performance indicators of collaboration quality in integrated safety systems

THE RESULTS

Ranking the indicators defines their significance in terms of context (CO), support (SU), tasks (TS), interaction processes (IP), team characteristics (TM), individual characteristics (IN) and overarching factors (OF). In the process of identification, the following is taken into account: technological, human, organizational impact on the quality of collaboration process, as well as the influence of the environment. Results of the pairwise comparisons are shown in Table 1. The following data are presented in this and following tables: eigenvector of criteria and eigenvectors of indicators, λ_{max} value, and consistency index (CI), as well as inconsistencies of all indices (CR - Consistency ratio).

Table 1: The pairwise comparison matrix for criteria

	CO	SU	TS	IP	TM	IN	OP	W_c	Rank
CO	1	2	1/3	1/5	2	1/3	1/3	0,1227	4
SU	1/2	1	1.2	1/3	1	1	2	0,0943	5
TS	3	2	1	1/2	3	1	5	0,2046	2
IP	2	3	2	1	3	2	7	0,2858	1
TM	1/2	1	1/3	1/3	1	1/3	1/3	0,0796	6
IN	2	1	1	1/2	3	1	5	0,1757	3
OP	1/3	1/2	1/5	1/7	1/3	1/5	1	0,0372	7
$\lambda_{max}=7,2687$ $CI=0,0448$ $RI=1,32$ $CR=0,0339$									

Table 2 and 3 present pairwise comparison matrices for indicators based on the context and support. Similar matrices are defined for other five criteria, and selected indicators. Based on those values, local weights for indicators are calculated. The following data are presented in these tables: pairwise comparisons of indicators, maximum eigenvalue (λ_{max} value), and consistency index (CI), as well as consistency ratio (CR).

Table 2: The pairwise comparison matrix for indicators according to the CO

	CO1	CO2	CO3	$W_{cc,1}$
CO1	1	5	5	0,5205
CO2	1/5	1	1/3	0,2915
CO3	1/3	3	1	0,1111
$\lambda_{max}=3,0554$ $CI=0,0277$ $RI=0,58$ $CR=0,0477$				

For the purpose of pairwise comparison, the 1-9 point scale is used, where “1” describes equal importance or equal contribution to the objective, and “9” describes extremely importance or the highest possible order of affirmation. Pairwise comparisons at each level of the hierarchy are presented with the square matrix $A=[a_{ij}]_{i,j=1,n}$, where n is the number of elements that are compared. The values of elements are $a_{ij}=1$ for $i=j$, and $a_{ij}=1/a_{ji}$ for $i \neq j$. The consistency checking is obtained by calculation of the highest eigenvalue λ_{max} , where approximate method for calculation of λ_{max} is used ($\lambda_{max} \approx \sum (1/a_{ii}) * w_j$). Consistency index (CI) is calculated as $CI=(\lambda_{max}-n)/(n-1)$, and consistency

ratio (CR) as $CR=CI/RI$, where RI is a random index based on the dimension of the square matrix for pairwise comparison. For $n=3$ the random index is equal to 0,58; for $n=4$ is used the value $RI=0,90$; and for $n=7$ is used $RI=1,32$ in calculations. The pairwise comparison matrix is consistent and accepted if CI is less than or equal 0,10.

Table 3: The pairwise comparison matrix for indicators according to the SU

	SU1	SU2	SU3	SU4	Wcc,2
SU1	1	1	5	5	0,4167
SU2	1	1	5	5	0,4167
SU3	1/5	1/5	1	1	0,0833
SU4	1/5	1/5	1	1	0,0833
$\lambda_{max}=4,0001$ $CI=0,0001$ $RI=0,9$ $CR=0,0000$					

The following method for calculation of an eigenvector $w=(w_1, w_2, \dots, w_n)$ is applied: elements of each column are divided by the sum of all column elements, and average value of each row is calculated. The results are the following eigenvectors: (1) eigenvector of criteria $w_c=(w_{CO}, w_{SU}, w_{TS}, w_{IP}, w_{TM}, w_{IN}, w_{OP})$; (2) eigenvector of indicators $w_{cc}=(w_{COi}, w_{SUi}, w_{TSi}, w_{IPi}, w_{TMi}, w_{INi}, w_{OPi})$. For both eigenvectors, the eigenvalues $\sum w_j=1$. The results of the comparison matrices for indicators in relation to all seven indicators are shown in Table 4.

Table 4: The final results of the pairwise comparison

		LWs	FWs	Rank
Culture	CO1	0.6333	0.0777	3
Environment	CO2	0.1062	0.0130	19
Organizational structure	CO3	0.2605	0.0320	12
Knowledge management	SU1	0.4167	0.0393	10
Networks	SU2	0.4167	0.0393	10
Tools	SU3	0.0833	0.0079	21
Training	SU4	0.0833	0.0079	21
Demands	TS1	0.3333	0.0682	4
Structure	TS2	0.3333	0.0682	4
Type	TS3	0.3333	0.0682	4
Communication	IP1	0.6555	0.1873	1
Coordination	IP2	0.1867	0.0534	8
Decision making	IP3	0.1578	0.0451	9
Common ground	TM1	0.1716	0.0137	17
Group processes	TM2	0.0989	0.0079	20
Clear roles	TM3	0.3648	0.0290	13
Shared awareness and knowledge	TM4	0.3648	0.0290	13
Psychological factors	IN1	0.1416	0.0249	15
Skills	IN2	0.5247	0.0922	2
Wellbeing	IN3	0.3338	0.0586	7
Experience	OF1	0.1404	0.0052	23
Goals	OF2	0.1060	0.0039	24
Performance	OF3	0.3621	0.0135	18
Trust	OF4	0.3915	0.0146	16

The third column in Table 4 presents the weights of the factors, calculated by multiplying corresponding w_c weight with $w_{cc,i}$ weight ($w_{ci} \times w_{cc,i}$). The final weights are presented in column FWs, and they are calculated as a sum of previously calculated weights with corresponding weights of indicators.

CONCLUSION

In this paper key performance indicators of collaboration quality in the integrated safety systems are analyzed and evaluated. The Analytic Hierarchy Method is applied for key performance

indicators ranking. As the most important factors of efficient collaboration are identified interaction processes ($w_{IP}=0,2858$), tasks ($w_{TS}=0,2046$), individual characteristics ($w_{IN}=0,1757$) and context ($w_{CO}=0,1227$). It is obvious that definition and characteristics of interaction processes and tasks, individual characteristics of workers involved in collaboration, and context or domain where collaboration exists, are the most important for efficient collaboration.

According to the final results of the pairwise comparison of presented indicators, the following indicators are ranked in the first three places in the final ranking of indicators, according to the value of global weights: (IPI) Communication ($w_{IP,I}=0,1873$); (IN2) Individual skills ($w_{IN,2}=0,0922$); (CO1) Culture ($w_{CO,I}=0,0777$). The most important are communication abilities, individual skills for communication and collaboration, as well as organizational environment that enable and encourage different kinds of collaboration. Periodical analysis and control of selected indicators can help the continuous improvement of an integrated safety system.

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THE POSSIBLE DEVELOPMENT STRATEGY OF CIVILIAN PROTECTION ADAPTED TO THE ALTERED NUCLEAR THREATS OF BUDAPEST

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ABSTRACT

Based on the specific geographical location of Budapest, I give an overview of its vulnerability to disasters, with special regard to nuclear threats. Hungary has recently agreed with Russia on the expansion of the MVM Paks Nuclear Power Plant, which makes the issue of nuclear risks concerning the capital even more relevant. In my article I briefly present the basic geographical features of Budapest and analyse the disaster types that are characteristic of the capital, including risks related to nuclear energy production, then I proceed with examining the long-term environmental and health effects of nuclear facilities. My aim is to relate such civil protection principles and methods of appropriate levels to the scale of each threat, which are suitable to reduce the nuclear effects threatening the population of the capital.

Key words: nuclear threats, nuclear risk, environmental effects, health effects, civil protection

INTRODUCTION

The most effective method of civil protection in case of disasters is prevention. In order to define the actual methods of prevention, a cyclically applied risk analysis must be carried out in advance, with the aim of identifying the environmental effects threatening the civil population and property. On the basis of the analyses, the sum of the principles, methods and procedures must be defined which are suitable for reducing the harmful effects of the analyzed events. The most important factor is the cyclic quality, as our man-made and natural environment constantly changes, which can have an influence on the direct and indirect effects of individual events, and at the same time it might make certain modifications and changes necessary concerning the methods of protection against these events.

In this article I endeavoured to give an overview of the vulnerability of Budapest based on its unique location, with special regard to nuclear threat. Early in 2014 Hungary agreed with Russia on the expansion of the MVM Paks Nuclear Power Plant, which makes the issue of nuclear risk concerning the capital even more relevant. With regard to the limitations of length, I only examine the threats related to nuclear energy production with regard to Budapest before giving an overview of the long-term environmental and health effects of nuclear facilities. My aim is to relate such civil protection principles and methods of appropriate levels to the scale of each threat, which are suitable to reduce the nuclear effects threatening the population of the capital.

THE GEOGRAPHICAL FEATURES OF BUDAPEST, AND THE NATURAL AND MAN- MADE THREATS ENDANGERING THE CITY

Hungary is located in the centre of the Carpathian Basin, in the catchment area of the Danube and the Tisza rivers, and it has a mild terrain and large flatlands. The city lies on the banks of the Danube, and internationally significant roads, railway routes, waterways and air routes pass through it.

The Buda side is mostly covered with forests, while the Pest side is densely built-up. The length of its significant roads is 4253 km. The capital has 6 major railway stations, 4 marshalling yards and 26 minor railway stations. Liszt Ferenc International Airport receives and launches 200 planes on average daily. The length of the utilities network of the capital is 13.500km which is divided nearly equally among the water, gas and sewage systems. The length of the electric network is 7500 km, the majority of which consists of overhead wires. The prevailing winds are westerly, north-westerly, and the average yearly wind speed is 2,5 m/s. (Csiszát, 2000.).

Due to its geographical location, Budapest can be directly influenced by the harmful effects of flood-waves moving down the Danube, and besides, it can also be affected by the high number of road accidents related to the transportation of hazardous substances, because of the country's centralised road network and the centralized transport system of the city. Moreover, it is also characteristic production and industrial activity hold a central position in the life of the capital, which is often realized within the city itself, in the vicinity of densely populated settlements. In case of an unexpected harmful event the high number of the population of Budapest, high population density in certain areas and the large residential areas that lack protection cause further difficulties for protection experts in the course of organising and ensuring effective protection (Frisnyák, 1992.).

On the basis of these basic features I categorize the main factors determining the disaster threats of the capital in three types: man-made dangers, natural dangers, human and ecological dangers. In the following table I have summarised the sources of the threatening factors characteristic of the capital and the potential disaster types resulting from these threats.

Table 1: Lists the threats which might be expected to occur in Budapest, no matter how slight the chance is

Source of threat	Possible disaster types			
Nuclear threat	Failure of energy production systems using nuclear substances	Transportation of radioactive substances	Failure of energy production systems using nuclear substances outside the country	
Threat resulting from hazardous substances	Transportation of hazardous substances on road, railway, by air and through pipeline	Activities related to hazardous waste	The malfunction of hazardous industrial facilities	
Hydrological threat	Flood		Inland waters	
Geological threat	Earthquake			
Meteorological threat	Extreme weather conditions		Fires damaging nature	
Human and ecological threats	Epidemics	Migration	Terrorism	Spreading of weapons of mass destruction

Source: The table was created by the author of the article on the basis of her article entitled The Analysis of the disaster threats of Budapest (Műszaki Katonai Közlöny XXI. 1-4. 2011. pp.193-194.)

NUCLEAR THREATS OF BUDAPEST

The nuclear threat of Budapest is determined by the operation of three facilities. The sources of threats located in the capital include the Central Physics Research Institution, and the BME Institute of Nuclear Techniques. Within the country the MVM Paks Nuclear Power Plant the Temporary Container for Spent Fuel Elements and the occasional transportation of radioactive substances can pose a threat. When analysing nuclear threats, we also have to take into account the operation of reactors outside the borders of the country, especially the Bohunice and Mochovce power plants, as well as nuclear pollution caused by satellites returning to the atmosphere due to failure. Disasters caused by power plants operating in other countries far from the capital can occur due to unfavourable weather and meteorological conditions.

The only nuclear facility of energy production is located in Paks, where four VVER-440/213 type reactors operate, which belong to the group of pressurized water reactors. Due to continuous development, the total electrical performance of the Paks nuclear power plant has increased to 2000 MW (MVM 2014.). The Government of Hungary agreed on the expansion of the power plant with Russia early in February, which means a certain increase in performance and expectedly two new blocks. The details are confidential for the time being, but one consequence is sure: the operation period of the power plant will thus be extended, and we have to expect increased nuclear threat in Hungary.

The capital city lies 98 kilometres far from Paks in direct line, which means it is located in the zone of long-term food supply restrictions.¹ This means that in case of radioactive spill, we certainly have to expect restrictions concerning the production and consumption of food. The evaluation of meteorological characteristics cannot be neglected either, as the average prevailing wind direction is north-westerly, which increases the threat resulting from the failure of the Mochovce and Bohunice power plants of Slovakia.

THE CONSEQUENCES OF FAILURES CONCERNING NUCLEAR ENERGY PRODUCTION AND THE ENVIRONMENTAL, AND HEALTH EFFECTS THEREOF

In the course of nuclear events, depending on the scale of the failure, radioactive substances can be released into the environment. The main threats of the event are posed by the health and environmental damage caused by the substance. Several scenarios exist for the management of each event and for taking the necessary measures of civil protection. The application of a given scenario always depends on the scale of failure, the section the failure occurred in and the substances that have been released into the environment as a result, their concentration, and the length of time. Further factors affecting the protective measures are the facility where the event occurred, the prevailing meteorological conditions at the given period and the approximate number of people who have been or might be affected by the radioactive emission.

The interaction of ionizing radiation (alpha, beta, gamma and other radiation) with living matter can damage human cells, can destroy certain cells and modify others. The effect of ionizing radiation is measured by the energy absorbed by a unit of body mass, that is, the absorbed dose. The unit of absorbed dose is gray (Gy), the measurement is one joule per kilogram (J/kg).² The effective dose is used as a measurement with regard to exposure affecting the organism and tissue. The effective dose takes the absorbed energy, the type of radiation and the sensitivity of different organs and tissues into consideration. Millisievert (mSv) unit is used to express normal exposure.

The released radioactive substances can cause several diseases. Isotope 131 of iodine can cause malignant changes in the thyroid gland. Isotope 90 of strontium can cause tumour when it integrates into bones. Due to its toxic quality, plutonium can damage the human organism even when inhaled. Isotope 137 of caesium can be deposited throughout the whole body. The development of diseases always depends on the duration of exposure, thus it is important that the human organism should not be directly exposed to the effect of the source of radiation if possible, and it should be protected with a certain form of isolation and shielding. As well as harming the human organism, radioactive substances can damage the environment. Thus long-term protective measures have to include the restoration of the original state of food, animals, plants, the entire living and non-living environment to the original state.

THE POSSIBLE PRINCIPLES AND METHODS OF PROTECTION AGAINST RADIOACTIVE SPILL

The failure or malfunction of nuclear facilities related to energy production can result in so-called radioactive spill which is harmful both for health and for the environment.

¹ The zone of preventive measures is 0-3km from Paks, the zone of urgent measures is 3-30km and the zone of long-term food restrictions is 30-300km (the author)

²[http://www.haea.gov.hu/web/v3/OAHPortal.nsf/12217B14131A4499C1257C1B00496EC1/\\$FILE/cserno.pdf](http://www.haea.gov.hu/web/v3/OAHPortal.nsf/12217B14131A4499C1257C1B00496EC1/$FILE/cserno.pdf)

Radioactive spill: Radiation from radioactive substance which is released to a great distance from the location of the nuclear facility. In some cases it can extend to large areas (a few hundred kilometres in length, tens of kilometres in width). (Vincze, 1970) From the point of view of civil protection, time is a determining factor. The majority of failures occurring in nuclear facilities constitute a part of a process, which is the result of the chain reaction of several events. At the beginning of the given event the experts working in the nuclear facilities can predict if there is a realistic chance of a spill as a result of the given event. Even if they are not able to estimate the scale of the spill in advance, with the help of the available decision supporting models experts can calculate the direction of the radioactive cloud, on the basis of which the size of the affected area and the number of the endangered population can be specified.

Depending on the scale of the radiation hazard, the area affected by the spill can be divided into zones:

- Zone “A”: moderately polluted area, polluted with the spilled particles of the smallest radius, the protection of living forces can be provided with simple means.
- Zone “B”: heavily polluted area, polluted with spilled particles of medium radius. The protection of living forces – especially during the period of the spill – requires increased attention and activity, as the threat of radiation damage is significantly higher.
- Zone “C”: dangerously polluted area, polluted with spilled particles of larger radius. The protection of living forces can only be ensure with the application of shelters, covers and strict protective regulations that are implemented in good time.

In case of unfavourable meteorological conditions, the radioactive clouds released from Slovakia, or from any of the nuclear facilities operating in the area of Budapest, can reach the capital, thus we have to expect each of the above-mentioned zones to occur in case of threats concerning this city of two million people (Vincze, 1970).

As for civil protection, different protective measures can be implemented with regard to the time of the release, the application of which can decrease the negative effect of the radioactive radiation on living organisms. Figure 1 presents the types of possible measures of civil protection.

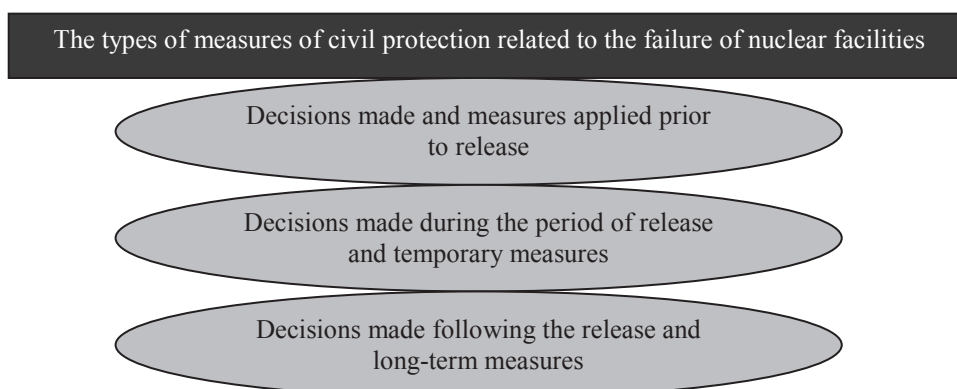


Figure 1: Measures of civil protection in relation to time
Source: Author

POSSIBLE PRINCIPLES AND METHODS OF CIVIL PROTECTION DURING THE PERIOD PRIOR TO THE RADIOACTIVE EMISSION

The fundamental aim of preventive evacuation is to direct the affected population to an area where the immediate effects of the radioactive spill are not realized. Evacuation means the organised withdrawal of the population from an endangered area, which lasts until the receiving destination is reached.

In case of nuclear emergency, in accordance with the direction of the spreading of an incidental radioactive cloud, in order to decrease the exposure to radiation, potassium iodide pills have to be

distributed and possibly administered to the population living in the affected area, in an organised way, on central command, according to age. Potassium iodide is a salt containing stable iodine isotope. Stable iodine is an element necessary for the correct functioning of the thyroid gland. The organism obtains the necessary amount of iodine through diet, with nutrition. Potassium iodide is a preparation sold as medication. In case of nuclear accidents radioactive iodine can enter the air, which can get into the organism through the lungs, by inhaling. The thyroid gland absorbs the radioactive iodine from the organism, where it is accumulated and causes different diseases of the thyroid gland. Stable iodine from the potassium iodide is bound in the thyroid gland after it enters the body, saturates it and thus prevents the radioactive iodine from binding, so it is excreted from the organism.

THE POSSIBLE PRINCIPLES AND METHODS OF MEASURES OF CIVIL PROTECTION DURING THE PERIOD OF RADIOACTIVE EMISSION

Existing shelters, constructed emergency shelters and the premises designated for isolation in residential and public buildings can be used in the protection against radioactive spill. The existing shelters can practically provide complete protection against the spilled radioactive radiation. During the period of the spill the facilities must be hermetically isolated from the outside world and the ventilation devices must be activated. Those staying at emergency shelters must also wear respiratory protection equipment, as these facilities can only reduce the radioactive spill to 1/100. The premises of residential and public buildings that can be locked appropriately can also be designated for isolation, as they can provide good protection against radioactive spill. (Dombovary, 1972.). The doors and windows must be sealed to the maximum, to be able to lock hermetically if possible.

Isolation can basically be divided into three phases:

- first phase: as long as the radiation level is high, the safety-of-life facilities can only be left when it is inevitable. This phase can last two or three days, depending on the level of radioactivity and the spreading of the radioactive cloud.
- second phase: it can last between a few days and several weeks depending on the level of radioactive contamination of the area. Only 3-4 hours should be spent outside daily.
- third phase: after the radiation hazard has passed, 8-12 hours can be spent outside, using individual protective equipment (respiratory protection, skin protection)

In the absence of appropriate safety-of-life facilities, the extraction, that is, evacuation of the population from radioactively contaminated areas (Zone “C”) can be ordered. The evacuation of the population is organised by authorities, and during the action the contaminated area can only be left via the appointed route, in the appointed direction wearing individual protective devices (Sárossy, 2011.).

THE POSSIBLE PRINCIPLES AND METHODS OF CIVIL PROTECTION IN THE PERIOD FOLLOWING THE RADIOACTIVE EMISSION

The period following the radioactive emission can last several years, so the evacuated population must be transported from the receiving destinations to temporary accommodation, which is called migration.

The restoration of the area contaminated with radioactivity, the replacement of soil, examination of drinking water bases, putting down the animals left behind can require a significant amount of time, expenses and human and technical resources. In Hungary, the process of protection planning has not reached the level to prepare the relevant authorities and organisations for restoration tasks in the period following the emission. At present, the planning concerning evacuation and reception is available, which affect the 50km vicinity of the Paks Nuclear Power Plant, but not the capital city. After the restoration of normal living conditions, the population can be resettled. The Figure 2 summarizes the methods of civil protection in the three periods.

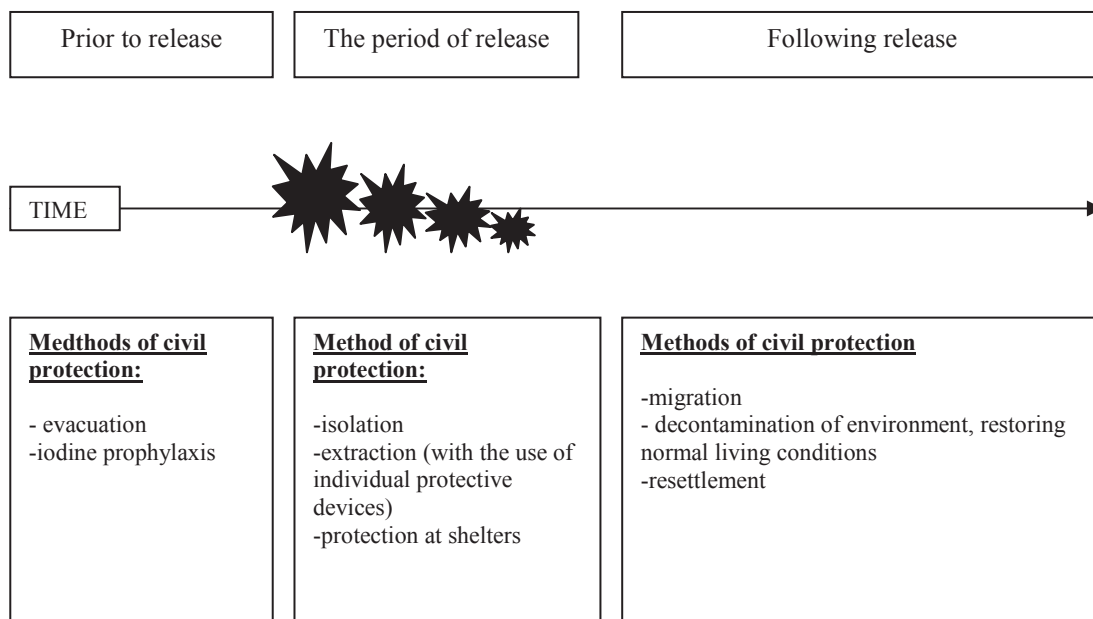


Figure 2: Possible methods of civil protection in relation to time
Source: Author

CONCLUSION

In my article I have reviewed the vulnerability of Budapest to disasters, with special regard to nuclear threats. The greatest danger posed by nuclear facilities is the radioactive spill, against which the population must be protected. I matched such possible principles and methods of civil protection to the nuclear threats which can be used in order to protect people residing in the capital. Among the methods of civil protection presented above, in case of Budapest, isolation and protection provided by shelters can be the most effective. In the capital the civil shelters located under most residential buildings still exist, together with the original technical devices. In addition, Budapest has the mass shelter of the largest capacity in the country: the underground railway facilities. The underground railway system of Budapest is a facility of dual function, in the time of peace it functions as a means of public transport, in case of disasters it serves as shelter. It was designed to provide protection for people in the streets, and, due to its independent utility network, enables 72 hours of total isolation.

The methods of protection developed previously can excellently applied in the course of protection against possible disasters, but the preparation of the population for disasters and their information thereof should be raised to a higher level in order to enable citizens to perform the orders aimed at protection effectively in case of dangers.

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THE USE OF PROBABILITY IN THE PROCESS OF RISK ASSESSMENT IN SAFETY AND HEALTH AT WORK

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ABSTRACT

In functioning of any system, there is a probability of unplanned scene, or hazard scene, that can endanger the system from different aspects. This explains the origin and development of security systems in various areas of life and business (e.g., health, transportation, property and finance, eco-system, the state, etc.), whose main function is protection from unplanned scene, primarily through prevention of risk, and then through a quick response to accidents and appropriate remediation of unintended consequences. The system of health and safety at work, in accordance with applicable regulations, standards, directives and recommendations of the relevant organization, is applied to all production and business systems and organizations that hire employees, with the ultimate point to prevent injuries at work, professional diseases and diseases related to work, and to create a safe workplace where employees will enjoy their right to a safe and healthy work. The basis for the establishment of safety and health at work is risk assessment as systematic registering and evaluation of all factors in the work process that can cause injury, illness or death, and prescribing measures that will determine the possibility of finding a way to prevent the risk, eliminate or reduced to a minimum. Probability of unplanned scene used in calculating the level of risk.

Key words: health and safety at work (HSW), risk, risk assessment, probability.

THE SYSTEM OF HEALTH AND SAFETY AT WORK

The System of health and safety at work is provision of such working conditions where are in the greatest extent possible, reduce injuries, occupational diseases and diseases related to work and which mostly are the basis for a totally of physical, mental and social well-being of employees (Health and Safety Law, 2005).

Health and safety at work is a fundamental right of employees established in the Conventions of the International Labor Organization, the Lisbon Treaty EU and EU directives. Safety and health at work is a right guaranteed by the Constitution of the Republic of Serbia where everyone has a right for respect of his personal safety, safety at work and no one of these rights can be waived. Women, youth and invalids shall be provided with special rights to health and safety at work and special conditions, in accordance with the law (Strategy for Health and Safety at Work in the Republic of Serbia for the period from 2013. to 2017. year, 2013.)

Priority tasks of HSW system reflected in the following principles:

- Work must be done in a healthy and safe working environment,
- Working conditions must be worthy of man,
- Work must provide to employee an opportunity to realize, develop their personality and to serve society.

A precondition for the realization of these principles is to manage workplace risks in the work environment. *The workplace* is an area intended for the performance of the employer (in indoors or

outdoors, as well as temporary or mobile construction sites, buildings, equipment, means of transportation, etc...) in where the employee resides or has access during work operation and which is under direct or indirect control of the employer. (Health and Safety Law, 2005). *The working environment* is an area where the work is done and that includes work places, working conditions, working practices and relations in the work process. (Health and Safety Law, 2005)

RISK ASSESSMENT

The basis for the successful implementation and enforcement measures for safe and health at work and working environment is risk assessment from injuries at work or health damages or illness of an employee. Risk assessment performed by risk valuator who are competent and professionally trained persons for risk assessment and who have knowledge and skills in the assessment process and risk management.

Risk assessment from injuries at work or health damages or illness of an employee, based on the identification of the dangers and hazards in the workplace and working environment that can cause injuries at work and/or occupational disease and the probability of their occurrence.

The main document in the field of safety and health at work is Risk Assessment Act (in written form). Risk Assessment Act includes complete dangers and hazards analysis and risk assessment of injuries at work, health damages or illness of the employee. This Act is base for employer for the realization safety and health at work. This document assesses risk in every workplace and establishing measures and priorities in terms of eliminating and/or reducing risks to minimum and improve of working conditions. This written document is called Risk Assessment Act for workplace and working environment, and it's valid when employer approved it.

For the purpose of uniformity and unity in observing and analyzing the risks of injuries and health damages or illness of the employee in the workplace and working environment, the Law introduced certain definitions (Health and Safety Law, 2005):

- Risk is the probability of injury, disease or health damages of employee due to dangers and hazards. It is known that the risk (quantitative concept) of injuries at work and illnesses or diseases or health damage of an employee caused by their probability of occurrence and seriousness injury or occupational disease.
- The level of risk resulting from the probability that dangers and hazards caused more or less damage or injury at work or occupational disease.
- Danger is a situation or circumstance that may endanger health or cause injuries of the employee.
- A dangerous occurrence is any event that endangered or could be endangered the life or health of the employee or there is a risk of injury to the employee.
- Risk assessment is the systematic registering and evaluation of all factors in the work process that can lead injuries at work, illnesses or health damages and identifying opportunities, ways to prevent, eliminate or reduce risks in the workplace and work environment.

The employer is obliged in act on the risk assessment determines the organization and implementation of measures to eliminate the risk and the implementation of measures which ensure safe and healthy working employees, based on the identified dangers and hazards in the workplace and work environment, and the estimated risk of injuries at work, occupational disease or illness related to work. Implementation of the measures established by an act of risk assessment is the rights, duties and responsibilities as the responsible persons and employees, and also each employee.

Risk Assessment act use to employer as a basis for the preparation and production for written manuals, instructions, orders, etc., to provide work in a safe manner in accordance with the regulations on safety and health at work.

THE USE OF PROBABILITY IN THE PROCESS OF RISK ASSESSMENT

The classical definition of probability means the ratio of favorable and possible outcomes, and therefore can be any rational number in the interval [0,1]. In practice, limits are rare, because they match the impossible and safe event (Kovacevic, 2011).

There are a significant number of published and already used methods for assessing risk for dangers and hazards identification. Between them we should mention AUYVA method (Allgemeine Unfallversicherungsanstalt), method "5 Steps", Singapore model, as easy to use. Each of these methods has its advantages and disadvantages (Jocic, 2008). In practice, KINNEY method is most often used method in risk assessment, because it is simple and gives result in which is immediately noticed level of risk. Method KINNEY graded risk (R) through 5 levels (Jocic, 2008):

Table 1: Grading of risk through 5 levels, (Jocic, 2008):

RANK	Carrying value
I level - insignificant risk	($R \leq 20$)
II level - small risk	($20 < R \leq 70$)
III level - medium risk	($70 < R \leq 200$)
IV level - high risk	($200 < R \leq 400$)
V level - extreme risk	($R > 400$)

I and II levels of risk are acceptable risks, or risks which are not increased in terms of the assessment of the injury at work, occupational disease and health damages. However, it is necessary in such cases to prescribe measures in the form of prescribing regular operating procedures. III level of risk is treated as a moderate, but increased risk. In that case, it is necessary to prescribe and take special precautions to prevent undesirable consequences. IV and V levels of risk are unacceptable risk. In this case, must take urgent measures and forbid the execution of such high-risk activities, or forbid work in work equipment that is the source/cause danger/hazards.

Risk level (R) is calculated according to the model $R = V * P * U$, where is:

V – probability of possible events

P – consequences of possible events - the severity of injury or illness

U – frequency of events – time of exposing to risk/hazards.

Table 2: KINNEY methods

PROBABILITY OF POSSIBLE EVENTS – (V)	
0.1	Hardly conceivable
0.2	Practically incredibly
0.5	Exists but highly unlikely
1	Low probability, but possible in limited cases
3	Few possible
6	Quite possible
10	Predictably, the expected
CONSEQUENCES OF POSSIBLE EVENTS - THE SEVERITY OF INJURY OR ILLNESS (P)	
1	Small (easy) - Injury or illness requiring first aid and any other treatment
2	Significant - Medical treatment by doctors
3	Serious - Invalidity, single serious injuries with hospitalization and lost days
6	Very serious - Single fatal accidents
10	Catastrophic - Multiple death
FREQUENCY (TIME EXPOSURE TO HAZARDS / HARMFULNESS) (U)	
1	Exposes are rare (per year)
2	Exposes monthly
3	Exposes weekly
6	Exposes on a daily basis
10	Exposes a permanent, continuous

Source: Jocic, 2008

Table 3: Risk level

RANK	RISK LEVEL (R)
I	$R \leq 20$ Minor
II	$20 < R \leq 70$ Small; Take caution, solved by the regular procedure - Operating Instructions
III	$70 < R \leq 200$ Medium; Necessary measures, must be established management responsibility
IV	$200 < R \leq 400$ High; Need a quick response by senior management, require improvement from the supervisor
V	$R \leq 400$ Extreme risk; Emergency activities; Require immediate action by the top management

Source: Jovic, 2008

Table 4 gives an example of using probability and calculating risk levels, according KINNEY methods. Valuator is first defined dangers/hazards, and then on the basis of available data, which is collected, the valuator assigned value to each of the parameters (V, P, U). After that, valuator calculates the value of the level of risk for each dangers/hazards.

Examples in Table 4 show that changes in the first parameter V from “Few possible” to “Low probability, but possible in limited cases”, can change the rank of the risk R.

In this case, the valuator has a problem with inaccuracy in determining risk level. The probability of the two categories isn't clearly and precisely determined. This method with simple calculation is acceptable only for a quick and general risk assessment. Also, in mathematically view, it is difficult to estimate error, because the scale from 0.1 to 10 is not fragmented into equal divisions.

Table 4: List of risk and hazard and risk assessment

Code of recognized hazards	Group, type and description of dangers or hazards	Probability of injury or illness occur	Possible consequences of injury or illness	Frequency of events	RISK ASSESSMENT
		V	P	U	Risk level $R = P \times V \times U$
8.9.4.2/1	Mechanical hazards				
8.9.4.2/1-1	Danger from rotating or moving elements of work equipment (conveyors, gear)	Few possible (3)	Serious (3)	Daily (6)	54
8.9.4.2/1-2	Danger of crushing, from falling boxes from height - from unstable stollations	Low probability, but possible in limited cases (1)	Serious (3)	Daily (6)	18
8.9.4.2/1-3	Danger of cuts with funds for work (sharp edges or spikes)	Few possible (3)	Significant (2)	Daily (6)	36
8.9.4.2/1-4	Exposure to chemical hazards - working with toxic chemicals	Exists but highly unlikely (0.5)	Very serious (6)	weekly (3)	9

Source: JOB, 2014

Also, the probability that disease or injury happened in this method is unequally discretized on only 7 values, with a imprecise range.

Comparing risk assessment using this method and risk assessment that would give a more precise level of risk, it can be concluded that is necessary to calculate the probability that an injury or illness occur, for example basis of concrete data on the number of injuries or illnesses that occurred in a workplace.

CONCLUSION

Risk assessment includes the activities of risk identification, analysis and evaluation of risks. When organization identify risks, organizations need to define the source of risk, field of influence, scenes and the probability of scenes, the causes of scenes and their potential consequences. The result of this activity should be a list of risks with their basic characteristics. Risk analysis includes understanding risks. Risk analysis is input into risk assessment and decision which of the risk should be treated (reduced or eliminated), together with the applicable methods and strategies. The purpose of risk assessment is to assist in decision-making, based on the outputs of risk analysis, about which risks should be treated and what are the priorities for activities to reduce or eliminate risks (Jovanovic, Bozanic, 2011).

Based on the fact the risk is uncertainty in occurrence of adverse scenes when there are two or more options, in the process of risk assessment is a necessary to use probability. Assessing probability of scenes is based on previously collected data from different sources: experience in knowledge systems, expert data and the data which are basis of relevant tests.

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PROCESS CONTROL THE TRANSPORT AND HANDLING OF HAZARDOUS MATERIALS

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ABSTRACT

Modern civilization faces very serious problems of transport and disposal of hazardous materials resulting from industrial society. Taking in consideration importance of that problem, which is growing even in our country, and possible failures during transport of hazardous materials, it is very important to follow certain procedures during transport of such materials. Risk exposure is much higher if the vehicle transports materials which are explosive or poisonous. Moreover, some materials are inherently dangerous, for example liable to spontaneous combustion, and they can cause a damage or injury even without a traffic accident. Therefore there are special regulations for transport of hazardous materials whose application should enable safe transport. Great diversity of hazardous materials can significantly harm the environment for a long period. The present study, through various parameters aims to explore such possibility and shall try to find out methods to prevent similar incidents and protect population and the environment by comprehensive application of regulations stipulated by national laws and international agreements. Handling of hazardous materials, in its broadest sense, bears certain risk. Unprofessional and non-systematic approach to its handling may cause long-lasting, and very often, permanent consequences for safety and health of people, protection of property and environment. Transport control and handling of hazardous materials including strict compliance with legal regulations present the focus of this study.

Key words: ADR – European Agreement Concerning the International Carriage of Dangerous Goods by Road, ISO – International Standard Organization, Hazardous materials, Transport; Accident.

INTRODUCTION

Hazardous materials present all those substances which under certain conditions may in any way jeopardize health and lives of people and harm the environment. As a rule, consequences caused by hazardous materials can severely harm health and environment and they cannot be repaired in the short period of time, but may be even permanent. For this reason control of production, purchase, use and transport of hazardous materials present priority for the competent authorities and institutions dealing with these issues.

Interest of any society is to reduce damages and harmful consequences to a minimum. This can be achieved by prevention of accidents, i.e. by identifying and analyzing potential hazards at all stages of the transport of hazardous materials. The problem and the key to safe transport of hazardous materials may be found in identification and analysis of hazards and potential hazards, as well as identification and classification of hazardous materials which are transported. Also, requirements for vehicles carrying hazardous materials must be defined, so that transport is organized by strictly defined procedures with an objective to reduce possible consequences to a minimum.

This is why today in the world priority is given to the safety and prevention of the packaging, handling, storage and transport of hazardous materials. To improve safety we must explore diversity of hazardous materials, their impact on the environment and people, a way of packaging, storage, and possible causes of some incident. For proper and professional performance of the above it is necessary to be informed about and to meet requirements prescribed by both national

regulations and international agreements, in order to be able to apply required safety measures to protect people, property and the environment.

National and international transport of hazardous materials has significantly increased in the past years and consequently risks of accidents. For the reason mentioned, application of the regulations must be subject to constant control of the means of transport carrying hazardous materials and persons handling hazardous materials.

In this study I want to emphasize necessity of implementing procedures for the safe handling and transport of hazardous materials. By identification of the processes, persons involved, legal framework and international agreements and codes I am going to demonstrate that it is necessary to apply safety measures in order to get proper response in case of an accident.

THE PRESENCE OF HAZARDOUS MATERIALS IN TRANSPORT – STATISTICS

Large amount of hazardous materials is transported in road traffic. Precise definition of the routes and border crossings where hazardous materials may be transported present one of the most important segments of control of such goods. We cannot ignore the number of transports performed during import of hazardous materials of **Class 1**(explosives), which are mainly stored in the Port of Bar.

With reference to the above mentioned, listed below may be found data for the past five years:

Table 1: Number of imports per year

No	Year	Imports
1	2009	33
2	2010	23
3	2011	17
4	2012	11
5	2013	8

Based on the database which is updated on a daily basis in the Ministry of Interior Affairs and Directorate for Emergency Situations, the most common travel routs within the country where the largest amounts of commercial explosives and initiators are transported are the following:

- Berane - Pljevlja - 65 transports (363.032 kg)
- Berane -Nikšić - 26 transports (392.376 kg)
- Nikšić - Pljevlja - 29 transports (161.482 kg)
- Bijelo Polje – Bar(warehouse of the Port of Bar)

Table 2: Overview of transported quantities of explosives in the national road traffic by type and months for 2012

Type of explosive	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
Explosive (kg)	42,61	19,13	70,56	111,01	109,20	95,11	99,70	96,27	89,34	106,28	78,89	83,34	1.001,44
Blasting fuse (m)	16,15	6,00	19,00	35,85	131,75	26,50	74,8	77,25	75,25	82,5	63,29	15,4	623,74
Slow burning fuse (m)	3	2	1	52	5	12	6	5	5	53	1	6	151,00
Delay elements (pcs)	6	5	8	37	12,81	11	10	4	4	4,15	1,08	20	123,04
Blasting caps (pcs)	1	3	450,01	51	4	5	2	2	2	1	81		602,01
Electric detonators (pcs)	1,73	57,00	5,75	7,86	20,61	7,46	6,08	2,69	2,69	6,06	7,72	4,57	130,22
Non electric deton. (pcs)	21	10		1,57	2,1	90	18	31	31	1,15	93		298,82
Boosters (pcs)	25												25,00
Number of transports	5	1	12	15	11	12	8	6	7	6	5	3	91

Source: Ministry of Internal Affairs of Crne Gore, Directorate for Emergency Situations

An overall review of the total number of performed transports during 2013 is given in Table 3.

This is only one part of data which exclusively refers to hazardous materials of class 1, i.e. transport of commercial explosives, and therefore maximum commitment of all authorities in

charge for the control of transport, use and storage of such goods must be continuous and detailed. It is also necessary to maintain constant communication of all authorities in charge dealing with such problems, exchange of necessary information and thus adequate “monitoring” of hazardous material in order to get timely “response” to a possible accident.

Table 3: Overview of transported quantities of explosives in the national traffic of Montenegro for a period from 1st January to 31st December 2013

Type of explosive	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
Explosive (kg)	43.128,00	69.223,00	70.813,00	82.026,00	77.635,00	86.613,00	58.764,00	40.603,00	57.328,00	63.649,00	77.491,00	103.843,00	830.551,00
Blasting fuse (m)	8.000,00	32.750,00	42.950,00	151.460,00	23.000,00	24.920,00	69.282,00	38.900,00	138.504,00	37.000,00	26.100,00	36.852,00	629.191,00
Slow burning fuse (m)	6,00	72,00	91,00	48,00	94,00	51,00	82,00	47,00	79,00	38,00	518,00	402,00	1.528,00
Delay elements (pcs)	120,00	50,00	238,00	7.574,00	813,00	726,00	627,00	305,00	494,00	488,00	670,00	406,00	12.511,00
Blasting caps (pcs)	3,00	2,00	1.041,00	67,00	92,00	71,00	84,00	73,00	463,00	36,00	2.606,00	1.217,00	5.755,00
Electric detonators (pcs)	3.750,00	3.990,00	6.125,00	11.030,00	3.591,00	742,00	2.285,00	2.072,00	10.902,00	4.472,00	55,00	8.863,00	58.227,00
Non electric detonators (pcs)	-	75,00	184,00	760,00	35,00	907,00	1.056,00	458,00	2.495,00	947,00	27.106,00	15.117,00	49.140,00
Boosters (pcs)													
TOTAL	19	36	42	69	48	51	45	35	41	52	65	101	604

Table 4: Overview of performed transports of explosives for a period from 1st January to 31st December 2013

Type of transport	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
National transport	20	36	42	70	49	51	46	35	41	54	65	104	613
Import	1		1			2				1	1	2	8
Export	2	2	3	3	2	4	4	4	4	4	6	2	40
Transit			4	3	1	2	1	1	2	1	5	3	23
TOTAL	23	38	50	76	52	59	51	40	47	60	77	111	684

Based on the above data we can make a conclusion that large amount of hazardous materials is transported over the territory of Montenegro. Therefore it is necessary to:

- Continuously coordinate and apply existing regulations with solutions, standards and recommendations prescribed by international agreements,
- Define framework for safe transport activities of hazardous materials by road, rail, sea and air traffic,
- Educate persons who participate in the transport and handle hazardous materials,
- Clearly define jurisdiction for issuance of approvals and control of transport of different hazardous materials by road, rail, sea and air traffic.

Approach to the transport of hazardous materials must be coordinated, systematic, and multidisciplinary if we want to avoid negative consequences due to inefficient monitoring of events and problem control. Keeping a database, including its constant updating at the relevant Ministry, of the types of hazardous materials, their characteristics harmful for life and health of people and property, of measures to be taken to prevent or eliminate hazards, as well as legal entities which can help eliminate occurred hazards, of routes taken by the vehicles carrying hazardous materials, all the above can help to efficiently manage the accidents.

PARTICIPANTS IN TRANSPORT, THEIR ROLE AND LEGAL RESPONSIBILITY

Depending on the requirements users of transport services may have, ongoing processes may be organized in a way to be effective and efficient, and to fully comply with the requirements.

- Participants in the traffic of dangerous goods are:
- Owners of the goods – consignors,
- New owners of the goods – consignees,
- Carriers to and from the port (by road and rail traffic),

- Shipping agents,
- Ship owners.

All participants have their own requirements for effective and efficient performance of the transport services. In addition to this there is also a great number of commercial and financial requirements which must be complied. Meeting such requirements is crucial for sustainability of business entities, ports and other organizations, especially in the period of economic crisis when all economic activities are reduced. In times of crisis competition is increasing as everyone has some unused capacities and is looking for a job. Maritime activity is one of the most sensitive to economic trends and consequently ports which provide services of reload and storage. Acceptance of ISO 9001 Standard requirements and coordination of the port activities with the present one of the basic business requirements.

Apart of the listed participants who have their direct expectations from the processes in the port, there appear government, international community and all future generations as parties which are very interested in these processes. Given that these are hazardous materials which can cause huge and permanent consequences to health and safety of people, environment and destruction of the property due to improper handling, the government and international community prescribed strict regulations and adopted international standards and agreements by which all the processes related to hazardous materials are regulated.

SECURITY MEASURES FOR HANDLING HAZARDOUS MATERIALS

In order to carry out security measures in a way prescribed by international agreements and national regulations, first of all it is necessary to recognize participants and their duties in the overall transport chain, in order to provide safe transport and prevent possible accidents. Safety requirements imposed by participants, starting from a consignor, through packer and carriers up to consignee have to be met prior to commencement of the transport of dangerous goods.

Hazardous material must not be submitted for shipment unless consignor submitted to the carrier instructions on special safety measures for each shipment, which have to include:

- Information about type of hazardous material (UN number, class, chemical, commercial and trade name of the hazardous material)
- Information about hazard type and consequences which hazardous material may cause,
- Procedure towards person who gets into contact with hazardous material.

Also, a consignee is liable to:

- Takeover hazardous material in the short terms and secure a place of unloading, i.e. decanting of hazardous material from the presence of other persons and means of transport,
- Provide equipment necessary for unload of hazardous material,
- Clean or decontaminate a transport vehicle and cargo area and provide removal of placards after cleaning or decontamination of the transport vehicle.

Hazardous materials may be handled only by person older than 21 and younger than 65 years of age, and ones who have completed training for handling hazardous materials of the appropriate class. Training is performed by an authorized company, licensed for these types of activities by the relevant government authorities. In this way, consequences which may directly harm life and health of people and environment caused by unskilled handling of hazardous materials could be prevented.

A person who drives a vehicle carrying hazardous material must possess a valid ADR certificate of qualification for the driver as well as a certificate for the vehicle which carry hazardous material. ADR certificate for driver is valid for five years, while period of validity for a vehicle is one year.

Prior to commencement of transport of hazardous materials, a driver is due to undertake necessary safety measures, i.e. he is due to:

- Get informed about features of hazardous material which is transported,
- Perform a visual inspection of the vehicle and confirm the presence and approval for the equipment,
- Bring a vehicle to the place of load and behave according to the regulations for loading and unloading,
- Check the level of chamber in the tank and close it,
- Possess a document for transport of dangerous goods – a consignment note and instructions on safety measures,
- Adjust vehicle speed to weather conditions,
- Not to leave the vehicle unless there is a spare driver,
- Call 112 - Operational and Communication Center in case of an accident and behave upon instructions on special safety measures and provide help to people in need,
- Use hand portable fire extinguisher in case of fire,
- Strictly obey the routes indicated in the approval for transport issued by the relevant authority for interior affairs.

OBJECTIVE: To prevent uncontrolled movement of the vehicle carrying hazardous materials through traffic network and settled areas.

Hazardous material must not be transported in the same container with human food, animal food, medicines and objects of common use which are subject to health controls. Loading and unloading of hazardous materials in the ports and docks is performed on the special places designated by the relevant public administration body in charge for safety and rescue activities, including consent of the relevant government body for traffic and maritime affairs, and administration body in charge for environmental protection. Places of loading and unloading of hazardous materials must be regularly equipped by fire extinguishers and other devices, properly secured and clearly marked with labels of danger. Equipment for loading and unloading hazardous materials must be in a good condition, so that its use shall not cause any leakage, decanting or pouring of hazardous materials, and which shall reduce the possibility of emission of air pollutants or damage of the package to a minimum.

During handling (during loading or unloading) hazardous materials on the ship and the coast, it is not allowed to:

- Keep substances and devices which may cause fire or may enable its spreading;
- Keep an open flame or work with an open flame (welding or similar) ;
- Smoke and use devices for fire setting (matches, lighters, etc.);
- Use devices or objects having firebox;
- Use tools or other devices which spark;
- Have presence of the persons not directly involved in loading or unloading of these materials.

In case of an accident or incident all participants in the transport, depending on the type of a predictable danger, must take preventive safety measures and procedures, as well as all other necessary measures in order to prevent an accident or incident, e.g. to reduce consequences of an accident or incident to a minimum.

In case of an emergency, i.e. in case of an accident or incident participants in the transport are due to immediately call Operational and Communication Center (112), and provide all information necessary for further activities. The carrier, consignor, consignee and shipper must communicate with each other as well as with persons authorized by the competent authorities in order to

exchange information on the necessity of taking appropriate safety and preventive measures and procedures for incidents or accidents.

MEASURES TO IMPROVE TRANSPORT CONTROL

Continuous improvement of the transport control presents a constant duty of the competent authorities. These improvements can be made in two directions:

- Improving preventive measures
- Improving procedures for responding to accidents

Therefore, I would suggest the following improvement measures:

1. To get an efficient response to an accident, in current conditions, it is necessary to train and equip an existing (specialized) National response team in case of chemical, biological and nuclear radiological accident, all the above in order to get an appropriate response to the newly occurred situation, i.e. to enable reduction of harmful consequences for people's life and health, property and environment, which may occur during transport of hazardous materials. Two models of responding in the case of a hazardous accident are required - cessation and elimination of consequences. The former has to be the system of urgent interventions (pull out injured, stop spilling chemical substances, extinguish a fire, prevent spreading further destruction) and primary neutralization of spilled substances. The most important is that this system should be able to act in the shortest terms and in the most possible organized manner. One thing is sure that from accident occurrence to the first intervention there is the "dead time", i.e. the time in which certain process are going on and consequences are born. This means that there is no absolute certainty that consequences caused by an accident will not appear, but promptness of intervention can have a significant influence on their intensity.
2. In order to prevent uncontrolled movement of the vehicle carrying hazardous materials in the traffic network and settled areas, it is necessary to put in function CoordCom system integrated in the Operation and Communication Center – OKC 112, which in conjunction with the system for automatic vehicle location (Automatic Vehicle Location System, AVLS) makes it possible to have an overview and data of some vehicle (with integrated AVLS) on 112 operator's display and to track it. The application for tracking vehicles carrying hazardous materials displays a location of the vehicle based on the transmission of GPS data collected by corresponding GPS locator (GPRS SIM card or TETRA station) integrated in the vehicles. Data transmission from the vehicle to GSM center, within OKC 112, may be performed by a public GSM network or the private TETRA network. This way of communication makes it possible to get information about location of the vehicle carrying hazardous materials, information are sent to GIS system (Geographic information system) and shown on the map at the desk of the CoordCom operator, and also recorded in CoordCom data base and shown in operator's CoordCom application. It is possible to track the vehicle carrying hazardous materials from the border crossing entering to Montenegro to the border crossing exiting Montenegro if the vehicle is in transit or to the company or warehouse to which hazardous materials are transported.
3. Constant follow-up and harmonization of national regulations with EU regulations is required. It is also necessary to do translation of ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road on the web site of the relevant government body. Thus all participants to the transport of hazardous materials could properly get informed about liabilities under this agreement.

CONCLUSION

Complexity of the transport process and handling of hazardous materials require strict compliance to the legal provisions, international agreements and technical standards. The fact is that no matter

how good preventive actions may be, there may happen accidents, incidents or even a catastrophe. After such events, legal provisions and searching for institution to compensate occurred damages are not important anymore, what is important are procedures which should be taken in order to minimize impacts to the environment. Only prompt efficient and expert inputs taken by relevant government authorities and all participants in the transport chain may prevent immense consequences.

This study explained the necessity of taking safety measures during transport of hazardous materials, application of national regulations and international agreements, with an objective to prevent accidents, i.e. to reduce harmful consequences and improve promptness of the social community when they happen.

We should strive to a systematic and continuous improvement and development of the international collaboration with all states from the region and Europe in order to get new experiences and improved methods for the response in case of accidents, system of preventive actions and technical monitoring of all process which may cause mass accidents. At the same time all the above is also an imperative and duty of the whole society.

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FORECASTED AND SIMULATED EFFECTS OF LONG TERM FORCE-FIELDS THROUGH THE EXAMPLE OF THE GRAIN SECTOR OF KAZAKHSTAN

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ABSTRACT

Through similarity analysis, the yields of the next 12 years can be derived with high correlation even with only 8 years of previous yields creating a model of 81 countries (including Kazakhstan). The additive and multiplicative effects of the different types of years described the yields of cereals in frame of a special production function including meteorological data in the case of Kazakhstan. The connection between regional climate and regional yields can also be modelled in a balanced way as well. The sensitivity of the climate factors is acceptable. The annual precipitation and/or its frequency can be the base of simulations related to the pay off of the irrigation in regional level. If - during the previous 8 years climate - better agricultural technology was used, the non-climatic effects on the rate of increase of yields can be estimated. In case of the multiplicative modelling, it could be detected that environmental factors can have real negative effects on yield level.

Key words: simulation, Kazakhstan, long-term yield outlook/estimation, climate change.

INTRODUCTION

Kazakhstan is one of the major wheat producers in the world. The climate has a significant effect on the country's production capabilities. As a world leader producer their yields are affecting the world prices of the cereals. If a major producer will be out of the row, it will affect the world prices. Unfortunately the climate change will significantly decrease the possible production capacities, and it will increase the prices on the world market.

Because the Kazakh agriculture is in shortage of water, a decision support should emerge to examine the possibilities how to stabilize the production. This article deals with the sensitivity of the Kazakh cereal production in addition to the climate change. Although just a very few data is available about the Kazakh agriculture and other related data sets. So this gave the task and the question is it possible to handle the situation (the decision support) to provide a useful of forecast, and sensitivity analysis.

STATUS OF THE KAZAKH CEREAL SECTOR

The primary producer regions of cereals are located around of the northern/north-central territories. Kostanay, North Kazakhstan, Akmola, part of Pavlodar and the north of Karaganda, including the northern parts of West Kazakhstan and Aqtobe. Here the topography is mainly flat and the production on rich and fertile chernozem and kashtan (chestnut) soils (c.f. Map Nr. 1.) accounts for approximately 70% of the country's total wheat output.

Soil map of Northern Kazakhstan

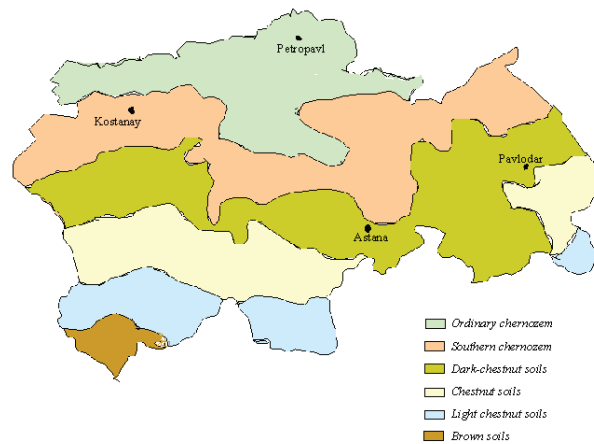


Figure 1: Soil map of Northern Kazakhstan,

Source: <http://www.fao.org/ag/Agp/AGPC/doc/field/Wheat/asia/Kazakhstan/northern.htm>

The cereals grown here are mainly rain-fed. Northern Kazakhstan produces hard wheat because of the dry climate. Despite the vast area - 205,000 km², greater than Germany, Poland, Italy, France and Spain combined – given for high quality and exclusively to arable production, yield is considered low by global standards. Although there are several risk factors, it can be stated, that there is a great opportunity to raise the production in Kazakhstan. The following (Nr. 1.) table shows the yield of cereals of Germany, Poland, Italy, France, Spain, Hungary and Kazakhstan in kg per hectare from 2008 to 2012.

Table 1: Yield of cereals (kg per hectare),

Country	2008	2009	2010	2011	2012
Germany	7119	7199	6718	6461	6900
Poland	3217	3478	3389	3391	3585
Italy	5353	5087	5441	5682	5328
France	7289	7455	6970	6831	7524
Spain	3581	2939	3231	3708	2886
Hungary	5800	4715	4719	5103	3662
Kazakhstan	1009	1249	804	1,688	950

Source: <http://data.worldbank.org/indicator/AG.YLD.CREL.KG>

Based on the Table Nr. 1. the following question is relevant to ask: which genetic potential can be assumed for Kazakhstan comparing to experiences of the cereal production in other countries/regions? With other words: can be estimated the yield of cereals for decades? These questions are relevant in order to support decisions about setting up e.g. irrigation equipments. Several methods exist to estimate future yields. The most common procedure is the scenario making/planning, for long term, but this leave the future direction unanswered. Basically it creates an optimistic, realistic, and a pessimistic direction with their calculated effect on the given question. Another way is to monitor a field experiment to extrapolate its results to the given country for short term (Mkoga, Z.J. et al., 2010). The greatest advantage of this method is to making possible to analyse other important inputs (e.g. the effect of irrigation, fertilization, tillage systems, etc.). The third technique uses COCO (Completeness and Consistency initiative) to fill the data gaps, ‘Bayesian’ approaches, and Hodrick-Prescott filters (Britz W. et al., 2005).

CLIMATE

The climate of Kazakhstan is typically semi-arid, with cold winters and warm summers. Located well outside the Aral Sea Drainage Basin to the south, where pressure for irrigation waters exists and droughts are persistent, risk to drought is frequent – two years in every five on average –, particularly during the May-August growing season when poor rainfall and heat often persist. Harsh winters are also a factor. Large scale irrigation does not exist. Consequently, reduced harvested area and yield losses/crop failure is not uncommon, leading to frequent, and sharp, year-to-year fluctuations, representing a considerable source of acute regional food insecurity, and international accessibility and market supply. The high frequency of adverse production conditions reflect few strategies to cope with such variable growing conditions. Where agriculture is least modernized and farmers do not have access to improved cultivars, and eddective inputs, the consequences of inadequate moisture can be serve with knock on effects for the local rural economy. Irrespective of such enviromental risks, Kazakhstan continues to comprise a significant part of the eastern reach of the Eurasian wheat belt, and increasingly strategic component of international wheat supply, in particular with respect to the EU. Climate change also brings uncertanities to the prospects of sustainable and uninterrupted growth of wheat in this region, where it is considered vulnerable. According to climate change scenarios based on global climate modelling, further temperature increases with no significant gain on atmospheric precipitation may lead to a drier climate. In parallel, the current climate zone boundaries (Map Nr. 2.) may shift northward, and wheat yields may be reduced more than by 25%. Such future risks should not be underestimated. Therefore simulation modells being capable to integrate the most influence factors to the cereal production are necessary to be able to plan long term decisions.

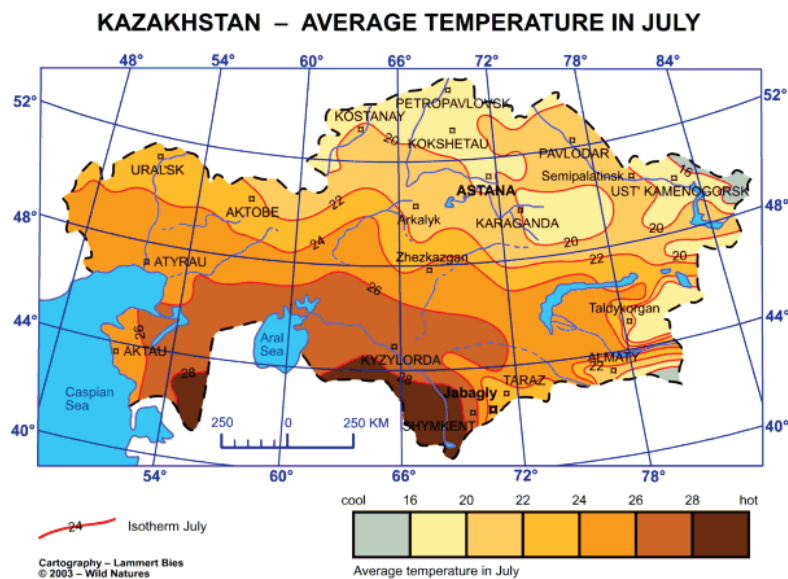


Figure 2: Map - Average temperature in July

Source: http://www.catholic-kazakhstan.org/Map/map_kazakhstan_temperature_july.png

THE PROBLEM

Imagining the previously adumbrated scenario, it has a high probability that the main grain producing regions of Northern Kazakhstan may lose their layer of soil with relatively high fertility rate (chernozem and kashtan) because of for example the stronger wind and/or water erosions. It will be necessary to introduce new technologies (chemicals, machines, etc), at least not to lose more yield. The simulation-oriented question is, if they increase the effectiveness of agronomy (e.g. fertilizers or improved irrigation systems), how these factors will affect the yield. Is it even possible to moderate the effect of the climate change? In details: (Q1) Is there a strong correlation between the previous years and the future yield averages? (Q2) Is it possible to find a strong

correlation between the climate and the yields? (Q3) Is there a strong correlation between the parameters of the simulation model (climate data) and the yield? (Q4) What is the difference between the regional production functions (cf. sensitivity or risk volume)? (Q5) Is it possible to estimate the impacts of non-climatic effects (fertilizers, irrigation, etc) on the production concerning yields? (Q6) Is it possible to identify the climatic factors which have negative effects on? (Q7) How often occur a positive effect related to the precipitation factors? Methodological background Simulation models of this article are derived based on similarity analyses. The partial model layers are hybridized and try to build the most consistent holistic data-universe about short and long term status of the cereal production of Kazakhstan. Due to preliminary project contributions of University Gödöllő, Hungary: e.g. SPEL-IDARA-CAPRI international project-series to ensure consistency databases for agricultural sector modelling (Pitlik, 2003), and PhD-dissertation of Bunkóczy (2013) to forecast e.g. yield of cereals. Several models exist (team-intern) for the forecast of yields (Batár, 2009, Szilágyi et al, 2013). The understanding of the climatic processes of Kazakhstan, should be started at examining on years already have been known. When this correlation is given, and if reliable climatic forecast data is available, then the possible results of the climate change might have known better.

RESULTS

Databases

Due to the separation of the former Soviet Union, most of the data for the current Kazakhstan is collected after the independence (December 25, 1991), from 1992. All the data of yields is downloaded from the Databank of World Bank, the regional data of yields were found on the website of the Kazakh Statistical Agency, Meteorological data were partly found in English on a Spanish website. Unfortunately, the datasets had several lacks. To avoid the mistakes come from these gaps, they had been denied, of course not in the meaning of calculate with them, but separated the full databases from the missing ones. In the end, two very different cities had been chosen: **Almaty**, which is the former capital and lying in different climate zone as **Kzyl Orda**, which is situated in the desert zone of Kazakhstan. For the climate data, mostly seven different attributes were available: Annual average temperature (°C) [T], Annual average maximum temperature (°C) [TM], Annual average minimum temperature (°C) [Tm], Total annual precipitation of rain and / or snow (mm) [PP], Total days with rain during the year [RA], Total days with snow during the year [SN], Total days with fog during the year [FG].

Methodology

Similarity analysis (COCO: component-based object comparison for objectivity) was used for this project. This methodology gives the answer from one input table, which is an object-attribute matrix (OAM). The OAM basically consists the experiences of the past in a way, that they can be interpreted as a function of the others. For example in the performance-price situation, the inputted performances and the prices regarding them will be compared. If a given performance costs a given price, then a linearly stronger performance will have a higher price. Most of the cases we examine more than two possibilities, and that is why a linear performance increase, not just in this example, is very rare.

The details of a performance, or a production, are diverse. The theoretical sum of combinations of these diverse details is infinite, but it is possible to emerge from the past the most general combinations. This will be the input for the OAM, and this will “teach” the model the pattern it should follow and reproduce.

Consistency is an important expression for similarity analysis. It is the examination of the possible patterns the model learn, and these system relationships should be non-contradictional. It is crucial to clear up the possible questions the model can answer. For example it is a risky question to ask

will the price of a share, or the production, increase or decrease. The better approach should be to examine the given company's performance and balance, or in the case of production, the factors of it, like a puzzle. This is used as a control as well. The sum of factors should be equal to the total of categories.

Models

For the closing, 10 models had been created. 4 of the 8 additive models were constructed around Kzyl Orda, the other 4 were around Almaty, there was a multiplicative, and basically there was a model which consisted of 81 countries yield data. (Q1) This last model revealed that there is a strong (86% - where the number of objects is 81, it means a single pattern) correlation between the past and the future yields. (Q5) From the 'Model of Countries' it could be estimated the potential of the yields (further 1297 kg per hectare based on the given level of 1126) assuming the highest level of agronomy.

Important note: every item from the climate database has its own partial correlation. In some cases the sum of two of these items dominate the major influence. (Q2-4KO) The Kzyl Orda model-group showed that the RA is the more significant for the yield increase, not the PP. If the PP factor is not calculated with, then the sum of the TM and Tm factors will be determinative, which is shown the best in one of these models, when these climate factors had been compared to the regional yields, from 2003 to 2012, eliminating 2005 which was a data gap. In this case, the sum of TM and Tm factors has reached 50%, and the SN factor was the second in the list with 39%. It means that the regional yield is sensitive for the difference between the annual average maximum (TM) and minimum (Tm) temperature, and it has a positive effect on the grain yields in the region. But from 1992 to 1999, except 1998 (data gap), this 'statement' is not entirely true. The main factors become the same as before (the other two models also calculate with the 1992-1999 period) RA and T. (Q7KO) The frequency of the positive effect of irrigation is 71%. So it is worth to set up irrigation systems for the Kzyl Orda region. (Q2-4Ay)

The Almaty model-group showed less difference than the previous group. Instead of the two temperature factors, here the TM factor dominates all 4 models. So the hotter is in the region, the more yield they will have. (Q7Ay) The frequency of the positive effect of irrigation in the region of Almaty is 50%. The question should be emerged: will Kazakhstan really lose with the hotter climate? (Q3) For these models, except the 'Model of Countries', the correlations between parameters and climate is 100% (7-9 years, 7 attributes). (Q6) In the multiplicative model, which way of thinking was the opposite of the previous ones, the negative factors had been looking for not the positive ones. It came out that if there are less foggy days in a year, the yield of that year will be influenced negatively by this factor.

CONCLUSION

The Kzyl Orda model group represents the 'climate changed' region, and the Almaty group is the one, where it is possible to compare the changes needed after a newer climate. The climate itself can not be changed, but the effects caused can be moderated. For example an intensive irrigation might be responsible for 71% of the non-environmental impacts. Among the environmental effects, the difference of the maximum (TM) and minimum temperature (Tm) factors will have the highest impact (50%) on cereal yields. As the climate change will be more intense, the difference between the maximum (TM) and minimum temperature (Tm) factors will be wider and wider. This would have a negative effect on the production, and without major intervention as well as on the world market. Comparing the Kazakh production to other countries, where the average yields are much higher, this possible effect might cause less damage than in Kazakhstan, where the yields hardly exceed 1000 kilograms per hectare. The regional yields and meteorological data make already possible to handle with long term decision situation based on similarity analyses and their consistency-oriented multilayer logic.

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