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**Review Article** 

# MODEL FOR BENCHMARKING OF IDENTIFIED SIGNIFICANT CHARACTERISTICS OF INSURANCE COMPANIES SERVICES BY APPLYING QUALITY TOOLS

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Summary: The study examined a possibility of developing the methodology that would enable, by applying quality tools, benchmarking of the identified significant characteristic of the insurance companies services. The objective of benchmarking of the identified significant characteristics of the insurance companies services is a selection of the characteristics that are not at the level of the competitors. Their reengineering and raising to a higher level would increase the satisfaction of buyers and consequently also market participation and quality of the insurance companies management. The first phase of the research referred to the development of the model for benchmarking of the identified significant characteristics of the quality of the insurance companies services based on the criteria of their significance for the satisfaction of buyers. In the second phase, based on the developed model, benchmarking was performed of the identified significant characteristics of the services of the selected insurance company with the insurance companies that are competitive in the given environment. The research proved that the application of adequate quality tools could bring about the characteristics of the quality of services that were not at the level of best ones in the class.

**Key words:** model, service, methodology, characteristics, benchmarking, insurance companies.

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#### 1. INTRODUCTION

The problem of service quality at the world market in the circumstances of a very strong competition and all the faster changes in the environment, nowadays gets more and more attention. The research proved that the services nowadays in the OECD countries represented more than 60% of the overall economic activity, and in the most developed countries even more than 70% [10]. Therefore, the problem of management of the service quality nowadays gets an exceptional importance both from the practical, but also from the research point of view. If the services are considered in the context of marketing and overall economic activity, they are inseparable from the very consumer, i.e. user of the specific service.

For the mentioned reasons, the quality of services became the most significant strategic factor of the success of an organization. When the organization gets a bad reputation with regard to the quality, it takes it a long time to change the situation. In case the organizations want to remove bad reputation, they have to manage competitive advantages, particularly the quality of the significant cahracteristics of the service quality, because an adequate meeting of the users' requirements can express satisfaction – enthusiasm of the user of services and get the reputation - epithet of an "extraordinary supplier".



Exactly within the framework of this study, the possibility will be considered of developing the methodology for benchmarking of the identified significant characteristics of the service quality for the purpose of their reengineering and raising to a higher level, which would increase satisfaction of the buyers and consequently also market participation and quality of the company operations. How should we know what are the requirements of the buyers with regard to the significant characteristics of the services that need to be raised to a higher level, is one of the most frequent questions nowadays addressed to the organization of any kind. For that purpose different quality tools are developed and used to serve for benchmarking of the identified significant characteristics of services. One of the first companies that developed and applied a whole series of the quality tools is the "TOYOTA COMPANY". By the development and correct application of different quality tools the company achieved a big success. That was a great motivation for other big companies to develop and implement new quality tools.

The subject of the research is a business process of service organizations. In this case we shall consider the business process of Kosig Dunav Osiguranje (Kosig Dunav Insurance), which provides services in the field of insurance of property and persons. In most general terms, the goal of this research is benchmarking of the identified significant characteristics of the service quality with the purpose of their reiengineering aimed at increasing the satisfaction of buyers. The purpose of a bigger attention paid to the significant characteristics of the service quality is to act by a feedback towards raising the observed use value of the service. The observed use value implies the value that the buyer is aware of when buying or using the service. That is why the organizations aspire to increase their competences, necessary for a permanent increase of the observed use value of the services [4].

# 2. BENCHMARKING OF IDENTIFIED SIGNIFICANT CHARACTERISTICS OF INSURANCE COMPANIES SERVICES

# 2.1 Development of the model for "benchmarking" of identified significant characteristics of insurance companies services

In order for any organization to be successful, it has to permanently reaearch the external and internal environment for the purpose of identifying the factors that affect its efficiency and effectiveness. In doing so, it is very important for the organization to understand and satisfy the present and future needs and expectations of the current and potentially interested parties. Therefore, the organization should identify the needs and expectations of the interested parties and maintain a balanced response to their needs and expectations[8].

According to M. Bobrek [3], the needs and expectations of the current and potentially interested parties are satisfied by the significant characteristics of the quality of products and services. Since the quality of significant characteristics of services is a result of a process, it is necessary for the organizations to identify the processes by which significant characteristics of the service quality are achieved. That is performed with the goal of reengineering the process by which the wanted significant characteristics of the service quality are not achieved.

"Benchmarking" as the process of measuring and comparing the characteristics of products and services with the best ones in the class is performed with the goal of acting upon the characteristics of the process for the purpose of raising the level of the characteristics of products and services that are not at the level of best ones. The comparison is performed within the own scope of activities or out of it in order to provide



long-term advantages. The procedure relies upon the comparison of own dimensions (characteristics: processes, products, services, etc.) with some companies that deserve to be a measure of the value.

The purpose of "benchmarking" is a systematic search for the "best practice". In that manner "benchmarking" becomes one of the instruments based on which a learning organization is built. In its essence, "benchmarking" is a process of learning and acquiring knowledge in order to apply what has been learned and improve one's own business practice. Important things for the true success in the implementation of this instrument are the process orientation of comparison and organizational-cultural preconditions.

In order to resolve the mentioned problem, a model was developed of "benchmarking" of the identified significant characteristics of services by applying adequate quality tools. According to it, the process of "benchmarking" of the identified significant characteristics of services is performed in the following three phases:

- 1) Selection of competitors for "benchmarking" of the significant characteristics of
- 2) Selection of the manner of measuring quality of the chosen significant characteristics of services and
- 3) "Benchmarking" of the measured significant characteristics of services [6].

# Selection of competitors for "benchmarking" of the significant characteristics of services

The precondition for a successful "benchmarking" is a good-quality selection of the competitors for comparison in order to obtain the information about where our insurance company is placed. A successful "benchmarking" should answer the questions:

- what (which useful experiences the competitor has) and
- how (i.e. how they were reached).

The essence of "benchmarking" is composed of the following characteristics:

- "benchmarking" is explicitly directed towards the individual product/service, process or functional area, and not towards the company as a whole;
- "benchmarking" is a decentralized process, which for each individual function looks for an adequate model;
- central theme in "benchmarking" is not a global total comparison, but a specific individual comparison.

Exactly in the above mentioned terms, a greater number of competitors should be selected, since each of them possesses some characteristics of services that give it certain competitive advantages. The imposed most expedient solution seems to be the selection of the competitors for "benchmarking" of the significant characteristics of services by using the "Pareto" method. That would according to certain criteria (market participation, scope of sale...), on the diagram by a descending order, show the significance of individual competitors. In that manner we would come to several significant competitors (competitors from group A and B), which we would perform "benchmarking" with.

# Selection of the manner of measuring quality of the chosen significant characteristics of services

The maximization of the satisfaction of service users is the basic task of each company, which bases its business both on the short-term and long-term efficiency and effectiveness. Namely, we could see that a bigger level of quality also provides a bigger



loyalty of the service user [1]. That is why the companies that operate in a dynamic and competitive environment, characterized by the processes of liberalization and globalization of the market, are faced with the problem of measuring the quality of significant characteristics of their products and services and satisfaction of service users. According to Todorovic[11], measuring is the process consisting of a certain number of operations for determining the unknown value of some characteristic of the product, service, process, etc. It can be quantitative and qualitative.

A special problem is measuring the satisfaction of the service user in the service sector due to the specificity of its output (e.g. impalpability, indivisibility of production from consumption, etc.), since the service sector is more abstract and demanding than the production sector. That is why the developed quality tools have a common goal, and that is to create conditions both for management, but also for the measurement of the service quality[4]. Hentschel [9] mentions that measuring the satisfaction of buyers by the service quality is one of the most critical elements in the mutual relation of the company that "produces quality" and the consumer that "perceives quality".

The basic problem of the user in using services of the insurance companies is that in case they are dissatisfied, they cannot replace it with some other and they often will not even complain. However, the user can take a simple decision in future services of the insurance companies to use the service of some other company. Therefore, satisfying needs and wishes of more and more demanding users at the markets due to more intensive competition is the imperative of every insurance company.

In order to prevent migration of users towards competition, the insurance companies should continuously do research in order to measure the quality and degree of the user satisfaction. Namely, attracting new users is a lot more difficult and expensive than making efforts to keep the existing insurance companies, which base their operations on a high quality of services. That is why the companies should understand quality as an absolute, and not as a relative value.

Therefore, the focus of insurance companies should be directed towards the expectations of current and/or potential service users, where it is also very important for the insurance companies to understand that their basic task is a maximal satisfaction of the service users. That is why there is a need for changing the approach to forming the structure of services of the insurance companies so as to achieve an optimal mix of obligatory, needed and desirable elements aimed at maximizing satisfaction of the service users.

Due to the above mentioned, all the bigger number of service companies decide to undertake different activities of measuring the quality of their services. They do that mainly by measuring the satisfaction of users, where they can choose among different qualitative (e.g. consumer panels) and quantitative methods and techniques of market research (e.g. examining satisfaction in a survey questionnaire). That is why in this stage it is necessary to conduct:

- selection of manner of data collection and
- selection of target groups.

For the solution of the first problem there is a possibility of collecting data by questionnaires and interviews with the target focus groups. What manner will be chosen depends on the activity of the organization. Since this is about the insurance companies where clients rarely use the same kind of service from two or more companies, and it is difficult to get such clients, the problem will be solved by the method of a questionnaire. In drafting the questionnaire, it is necessary to resolve the manner of evaluation. Namely,



evaluation can be done in many ways: description, numbers, Likkert scale, etc. Each of these solutions has its advantages and disadvantages, but numerical evaluation comes as a rational solution. Namely, it was proved that the process of benchmarking of the measured significant characteristics of services is most simply performed if the evaluation is numerical.

According to Arsovski[2], it is very important that each company recognizes and chooses the key indicators of performances that provide specific information regarding its basic activity, risks and possibilities. In doing so, it is very important in setting the level of performances for the goals to be challenging and realizeable.

When it comes to target groups, they can be divided in the following sectors: Industry, Trade, Tourism, Traffic, Agriculture, Services, State and Local Government, Public Sector, Professional Organizations and Energy.

#### "Benchmarking" of the measured significant characteristics of services

"Benchmarking" is the instrument that enables a continued process of comparing the organization with others aiming at finding and performing the best business practice for the purpose of ensuring long-term competitive advantages. The goal of comparison is to reveal comparative advantages or disadvantages of insurance companies. That is why nowadays a question is often asked whether quality precedes satisfaction, or it is satisfaction that precedes quality. Still the opinion prevails that quality precedes satisfaction, which was proved in their study by De Ruyter, K., Bloemer and J., Peeters [7].

The experts dealing with the problem of management of the service quality try to define the parameters of service that create satisfaction of the service user in order to manage it in the best possible manner. In order to achieve that, they define different target activities by which to try to act on establishing the realistic level of expectation of their service users, in order to be able to influence the increase of the level of perceived service quality[7].

Exactly the aim of the last phase of "benchmarking" is to present and analyze data on the measured significant characteristics of services. In that sense, it is necessary to present in tables the evaluations by each insurance company that was subject to "benchmarking" of the significant characteristics that were considered. Finally, it is necessary to give the analysis of evaluation of significant characteristics of the insurance companies services, which should be the entrance to the next stage, and that is reengineering of the process of wanted values of the significant service characteristics.

# 2.2 Application of the developed model for benchmarking of the identified significant characteristics of the services in "Dunav osiguranje"

The process of benchmarking of the identified significant service characteristics in "Dunav osiguranje" was performed according to the previously developed model. For that purpose, for each phase a special expert team was formed because of: a big scope of services, complexity of the process, specificity of the process and expertise of the personnel in solving specific problems, etc. "Dunav osiguranje" offers its services mainly at the level of the RS, and to a smaller degree at the level of BiH. The wish of "Dunav osiguranje" is to raise the level of its services both at the level of the RS, but also at the level of BiH. Because of that, there was a need for "Dunav osiguranje" to also perform "benchmarking" of the characteristics of services with the best insirance companies at the level of BiH.



The process of "benchmarking" will be performed through the following three phases:

- 1) Selection of competitors for "benchmarking" of the significant characteristics of services.
- 2) Selection of the manner of measuring quality of the significant characteristics of services and
- 3) "Benchmarking" of the measured significant characteristics of services.

# Selection of competitors for "benchmarking" of the significant characteristics of services

The precondition of a successful "benchmarking" is self-comparison, i.e. knowledge about which significant characteristics of services are:

- better than competitors,
- at the level of a competitor and
- below the level of a competitor.

Since "benchmarking" is a decentralized process, which for every single characteristic of the service requires an adequate model, in this case "benchmarking" will be performed of the significant characteristics of the services of "Dunav osiguranje" with its competitors. Exactly for the above mentioned reason there is a need to select a bigger number of competitors, because each of them possesses some characteristics of services that give to it certain competitive advantages. "Pareto" method was taken as the most appropriate solution for the selection of competitors for "benchmarking" of the significant characteristics of services. For that purpose, based on the criteria of the total revenue, the ABC analysis was conducted of the insurance companies that operate at the level of the RS according to the total revenue (Table 1) [6].

**Table 1**: ABC analysis of the total revenue of the insurance companies in BiH in 2013

Name of the insurance company	Total revenue [KM]	Participation in the revenue [%]	Cumulative [%]	Category	
JAHORINA osiguranje	24,448,520	16%	16%		
DUNAV osiguranje	17,253,226	11%	27%		
BOBAR osiguranje	16,385,739	11%	38%		
BRČKO-GAS osiguranje	14,357,563	9%	47%	A	
DRINA osiguranje	14,066,545	9%	56%	A	
NEŠKOVIĆ osiguranje	11,508,564	7%	64%		
TRIGLAV osiguranje	10,181,881	7%	70%		
GRAWE osiguranje	9,443,213	6%	77%		
KRAJINA osiguranje	6,261,282	4%	81%		
Osiguranje AURA	4,668,895	3%	84%		
MERKUR BH osiguranje	4,534,743	3%	87%	В	
UNIQA osiguranje	4,353,359	3%	90%	D	
SARAJEVO osiguranje	3,548,083	2%	92%		
EUROHERC osiguranje	osiguranje 3,473,435		94%		
MIKROFIN osiguranje	2,762,059	2%	96%	С	



ZOVKO osiguranje	2,544,838	2%	98%
BOSNA SUNCE osiguranje	1,373,675	1%	98%
VGT Visoko	1,350,579	1%	99%
CROATIA osiguranje	897,898	1%	100%
CAMELIJA osiguranje	132,519	0%	100%

#### Selection of the manner of measurement of the quality of significant characteristics of services

Measuring as the process of determining the unknown value of the quality of significant characteristics of services can be performed by using different qualitative and quantitative methods. However, there is opinion that the problem is best solved by measuring the satisfaction of the service users, since measurement is performed exactly for the purpose of increasing satisfaction of the current and future service users, as well as for the purpose of increasing profitability. That is why in this stage it is necessary to conduct:

- selection of the manner of data collection and
- selection of target groups.

Since the insurance companies in case are those where clients in a specific period of time rarely use the same kind of service from two or more companies, the problem, as previously said, will be rather solved by the questionnaire method. Namely, the target focus groups are mainly used in selling the wholesale goods[12]. When it comes to the manner of evaluation, as reasonable for further research, numerical evaluation will be used. For the above mentioned reason, the method used for collection of quantitative data was the questionnaire one. Namely, it is considered that the main method of research of satisfaction of service user is the survey questionnaire. The questionnaire must not be considered exclusively as a series of questions that the examinee should answer. That is the main instrument by which the researcher realizes research objectives.

When it comes to the target groups, they are divided in four groups for the specificity of the activity of "Dunav osiguranje" and selection of service users. Those are:

- citizens of the RS.
- industry,
- service activities and
- budget institutions.

The questionnaire was delivered to 78 different service users, those being:

- citizens of the RS 55 questionnaires,
- industry 41 questionnaires,
- service activities 50 questionnaires and
- budget institutions 28 questionnaires.

Number (percent) of answers was as follows:

- citizens of the RS 35 answers (63.6 %),
- industry 25 answers (60.9 %),
- service activities 28 answers (56 %) and
- budget institution 16 answers (57.1 %).

The analysis took into consideration only the questionnaires of the insurance companies from group A. The reasons for this should be looked for in the fact that 40% of the insurance companies are placed in group A. Other insurance companies also have a portion at the market smaller than 5%. In doing so, there was an attempt to provide as big as possible objectivity of the collected data (non-involvement of researchers).

The deepened analysis of the insurance companies from group A shows that four companies have a broader program of services ("Nešković" osiguranje, "Dunav" osiguranje, "Jahorina" osiguranje and "Bobar" osiguranje), and that they represent a good basis for "benchmarking". Other four companies have a narrower program of services. That means that:

- > "BRČKO-GAS" osiguranje, provides chiefly the services from the field of insurance of motor vehicles,
- > "DRINA" osiguranje, provides chiefly the services from the field of insurance of motor vehicles.
- > "TRIGLAV" osiguranje, provides chiefly the services from the field of insurance of motor vehicles,
- > "GRAWE" osiguranje, provides chiefly the services from the field of life insurance.

Although the mentioned four companies have a a narrower program of services, it is very important to consider them as an entirety, because it may happen that they have some important characteristics to be compared with, so that by providing it at the level higher than the competitor's to increase the participation of "Dunav osiguranje" at the market of the Republic of Srpska.

The research is structured in order to enable the comparison and repeated making of the experiment after a certain period of time.

#### "Benchmarking" of the measured significant characteristics of services

Since the process of "benchmarking" is revealing advantages and disadvantages of "Dunav osiguranje" with regard to the competitors, in this phase the evaluations were presented by the target groups and insurance companies that were subject to "benchmarking" and significant characteristics of services that were subject to consideration. In table 2. average evaluations were presented for all target groups marked with "A", "B" and "C". For the protection of data, the insurance companies in the text below were replaced by the grades that only the authors of this study are familiar with[6].



**Table 2**: Average grades of the characteristics of services by the insurance companies that were subject to "benchmarking"

	AVERAGE GRADE OF THE SERVICE CHARACTERISTICS				Doc. sign: QM 38 – Rev A List: Lists:	
	SERVICE FROM THE INSURANCE COMPANY					
NAME OF THE CHARACTERISTICS	Dunav osiguranje	" A "	"B"	"C"	Other insurance companies	
Quality - (justification) of paid damages	3.9	3. 6	2.3	2.6	2.7	
Completeness - (entirety of service)	4.3	3. 5	2.8	2.8	3.2	
Consistency - (unique approach to clients from the aspect of offer/payment of damages)	4.0	3. 3	2.4	2.4	3.0	
Quality of documentation - (correctness of the filled policy)	4.1	4. 3	2.9	3.0	3.4	
Professional capability of employees	4.5	3. 4	3.3	2.9	3.8	
Reliability - (confidence client has in agent)	4.0	4. 2	2.9	3.0	3.6	
Brand of the Company - (size, capital, tradition)	4.8	3. 2	3.3	2.9	3.6	
AVERAGE GRADE	4.2	3. 6	2.8	2.8	3.3	

#### 4. CONCLUSION

The research performed within this study had the objective of proving that by developing the methodology for benchmarking of the identified significant characteristics of quality of the insurance companies with the application of quality tools it is possible to select the service characteristics that will in the best possible manner satisfy the needs and expectations of the current and future service users. In that way the observed use value of service is increased by the service user, and consequently market participation and quality of business of the company also get increased.

From the above stated, we can make the following conclusions:

- 1) It is possible to develop the model for benchmarking of the identified significant characteristics of the service quality,
- 2) By developing models it is possible to properly direct the process of benchmarking of the identified significant characteristics of the service quality for the purpose of their improvement,

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- 3) The application of the developed model in a real system proved that benchmarking of the identified significant characteristics of the service quality requires a team approach and
- 4) The significant characteristics of the service quality should be permanently reconsidered by benchmarking, since that is also done by those best in the class, in order to raise the observed service value.

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# THE PROCESSING OF PRECISION WIRED ELECTRICAL EROSION

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Abstract: EDM machines replicate the electrode metal piece solid geometric shape tool called electrode. Electrode shape is identical to the piece that will get. The working area of the machine, each electrical discharge creates a crater in the piece (material removed) and the electrode wear. There is no mechanical contact between the electrode and the once piece. The electrode is made frequently copper or graphite. Solid electrode EDM machines are capable of motion in 4 axes, adhere electrode axis can travel: X, Y, Z and rotation on C, on its axis. The song remains fixed during processing, working in solidarity with the tank car.

Keywords: electrical erosion, parameters, electrode, crater, materials.

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#### 1. INTRODUCTION

Compact car needs a reduced installation space. Excellent rigidity due worktable fixed axis system that moves independently on the rack. The X / Y / Z adopt precision linear guides, ball screws and servo system which ensure smooth movement and high precision. Z axis has interfaces for universal installation of various types (Manual, 3R, Erowa). Extended power module enables increased efficiency of the car. Large-scale integrated circuit makes the circuit very powerful and reliable download. Algorithms "fuzzy" discharge status and distances are optimized adaptive, leading to increased efficiency and lower electrode wear. The complete set of parameters of the database allows easy processing various copper-steel, copper, carbide, copper tungsten carbide, graphite steel. A group of processing parameters can be called by a code. Parameters can be modified in real time during erosion and modified parameters can also be saved for future operations. The three functional pages are displayed on the screen consisting Setup, Erosion, Diagnostics offers a very friendly man-machine interface. Multitasking control software in real time enables preparation of the processing program while the machine is working.NC programming system for flexible operators can satisfy both beginners and advanced users. The orbital function, the machine can complete a number of different processing programs conveniently. The CNC functions, Edge Find, Center Find the process can start automatically. The RS-232 communication interface and USB interface, the machine can exchange charge on computer programming or control center conveniently.



# 2.THE EXPERIMENTAL RESULTS PROCESSING ELECTRICAL EROSION.



Figure 1: Machine is manufactured by electrical erosion AT-110.



Graphical and electrical erosion parameters. Figure 2:





Figure 3: Electrical erosion parameter values.



Figure 4: Electrical erosion parameter values.



Figure 5: Electrical erosion parameter values.

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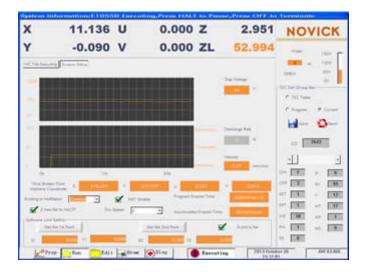


Figure 6: Electrical erosion parameter values.

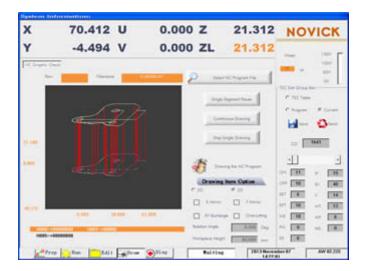


Figure 7: Electrical erosion parameter values.



Figure 8: Graphical form of the piece.

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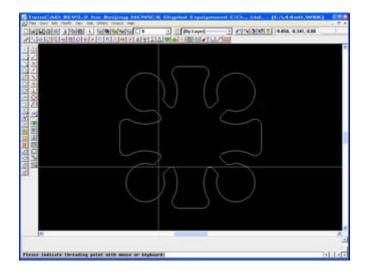


Figure 9: The final form of the piece.

# 3. A NEW STRATEGY OF CUTTING CORNERS



Figure 10: EDM the cut pieceup with features in normal.



Figure 11: Piece with cutting strategy to CORNER.



With this function (Corner Control Strategy), CNC system effectively eliminate errors in the shape of the work piece.

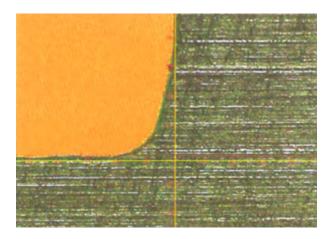


Figure 12: Corner Position Control System was not used.



Figure 13: Corner Position Control System has been used to create a the perfect R angle.

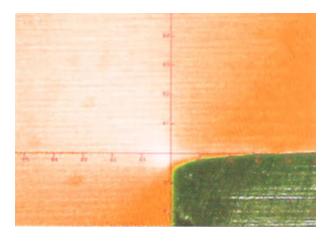


Figure 14: Corner Position Control System was not used.



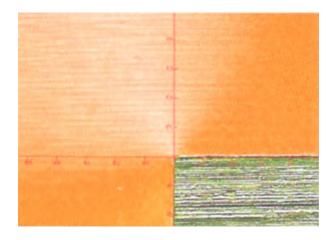


Figure 15: Using this function you can get a the perfect right angle.

# 4. APPLICATIONS OF PRECISION ELECTRO-WIRE EROSION

The material: Cr12

Diameter of thread: Ø0.2mm



Figure 16: The processing of by electrical erosion wired.



The material: Material: Cr12 Diameter of thread: Ø0.25mm

Cutting: 3



Figure 17: The processing of by electrical erosion wired.

The material: Material: Cr12 Diameter of thread: Ø0.2mm

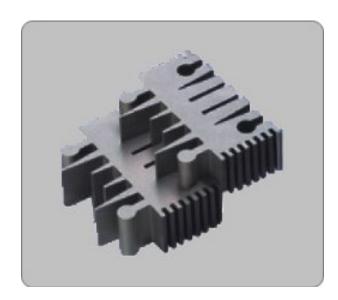


Figure 18: The processing of by electrical erosion wired.



The material: Material: Cr12 Diameter of thread: Ø0.25mm

Cutting:3



Figure 19: The processing of by electrical erosion wired.

The material: Material: Cr12 Diameter of thread: Ø0.2mm



Figure 20: The processing of by electrical erosion wired.



The material: Cr12

Diameter of thread: Ø0.25mm

Cutting:3



Figure 21: The processing of by electrical erosion wired.

The material: Cr12

Diameter of thread: Ø0.25mm

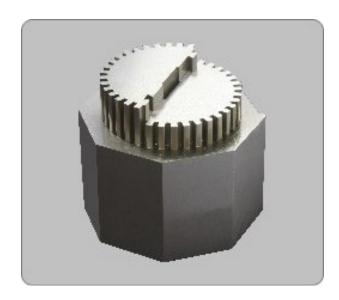


Figure 22: The processing of by electrical erosion wired.



# 5.EXPERIMENTAL RESULTS PROCESSING BY ELECTRICAL EROSION

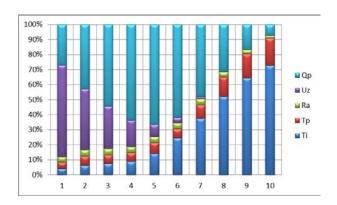


Fig.23. Electrical erosion processing parameters.

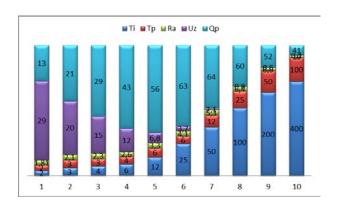


Fig.24. Parameter values expressed in percent

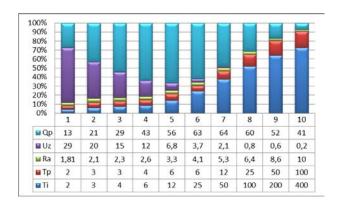


Fig.25. values to the processing electrical erosion.



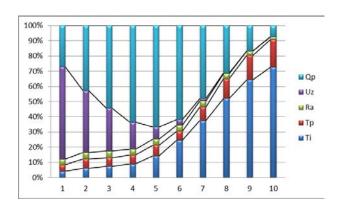


Fig.26. Contact productivity by other parameters.

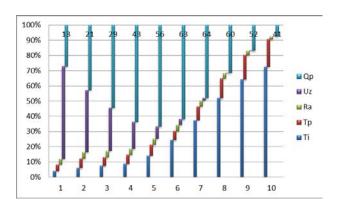


Fig.27. Contact productivity by other parameters.

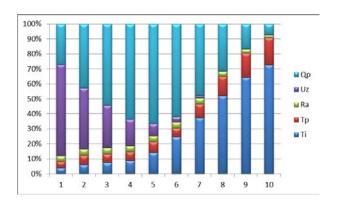


Fig.28. Parameters of electrical erosion.



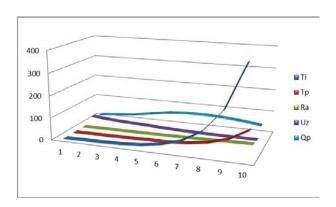


Fig.29. 3D representation.

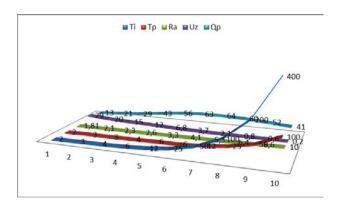


Fig.30. 3D representation.

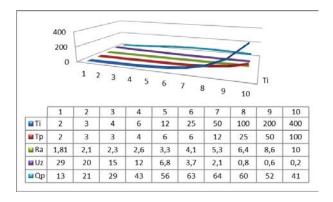


Fig.31. Parameter values expressed in percent.



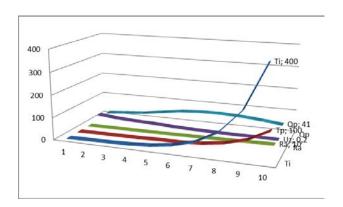


Fig.32. Parameter values expressed in percent.

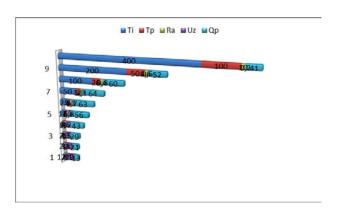


Fig.33. Parameters of electrical erosion.

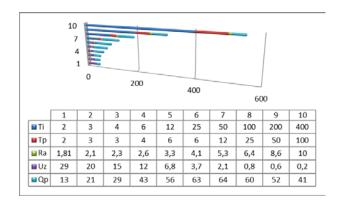


Fig.34.Parameters of electrical erosion.



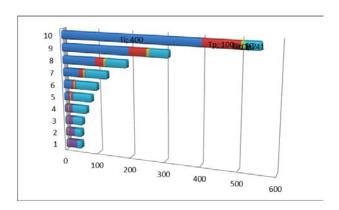


Fig.35. Parameters of electrical erosion.

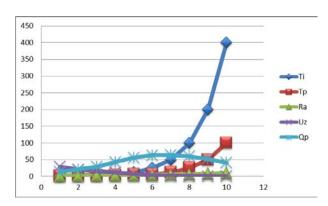


Fig.36. Representation of process parameters of electrical erosion.

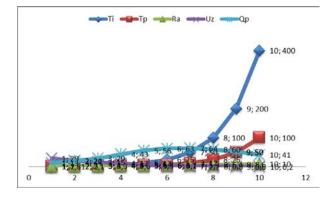


Fig.37. Representation of process parameters of electrical erosion.



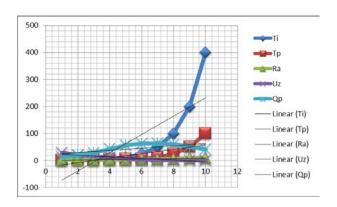


Fig.38.Right erosion electrical parameters.

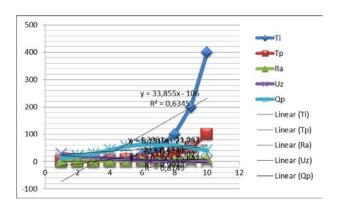


Fig.39. Right Equation erosion electrical parameters

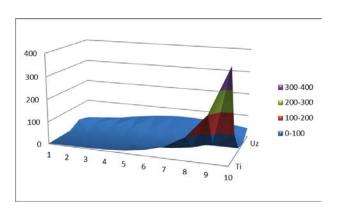


Fig. 40. 3D representation of the process parameters of electrical erosion.



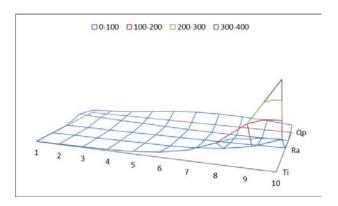


Fig.41. 3D representation of the process parameters of electrical erosion.

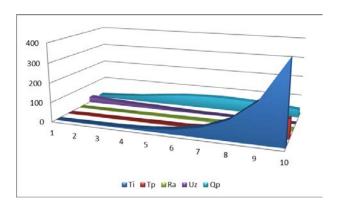


Fig.42. 3D representation of the process parameters of electrical erosion.

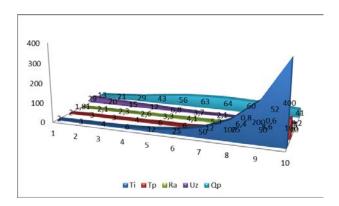


Fig.43. 3D values of the process parameters of the electrical erosion.



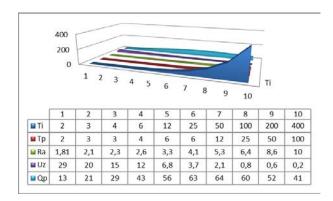


Fig.44. Values to the processing electrical erosion.

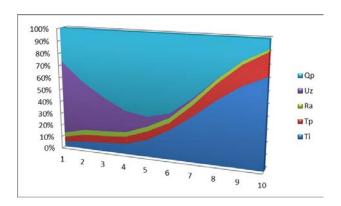


Fig.45. 3D values of the process parameters of the electrical erosion.

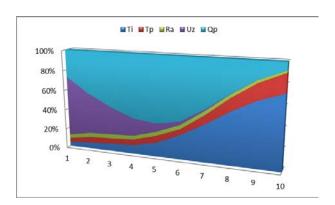


Fig.46. 3D representation of the process parameters of electrical erosion.



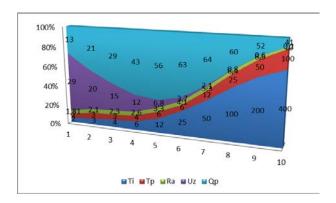


Fig.47. 3D representation of the process parameters of electrical erosion.

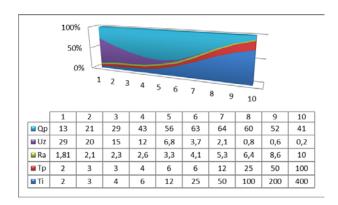


Fig.48. Values to the processing electrical erosion.

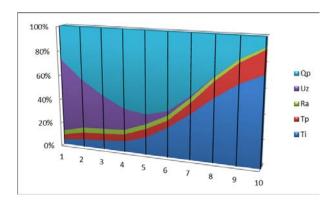


Fig.49. 3D values of the process parameters of the electrical erosion.

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#### 6.CONCLUSIONS

Because priming mechanism and breakdown of dielectric fluid and electric power circuit characteristics of the two electrodes voltage and current variations are not simultaneous. Therefore electrical discharge occurs through voltage and current pulses generated by a continuous power source. Electrical impulse is defined as the state of markets, being an electromagnetic system in which at least one of the characteristic parameters (voltage, current) suddenly deviate from a constant value and can return after a time comparable to the duration of transient processes system under consideration. For all discharges in impulse to preserve individuality is necessary during the break (Tp) to be greater than the time required to discharge ionization bridge conductors and larger than transitory duration electrical processes, caused by the inductive or capacitive source supply.

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# CHANGE ACCELERATOR: HOW INNOVATIVE COMPANIES CAPITALIZE BENEFITS OF THE COMPLEMENTARY RELATIONSHIP BETWEEN LEADERS, MANAGERS AND ENTERPRENEURS IN IMS ESTABLISHMENT

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Abstract: In the HBR journal, professor John Kotter, in his paper from 2012, observes two organizational structures. The first are traditional hierarchies and processes that together make up the organizational "operating system" and are the backbone of managing the operational needs in most companies. Using this system, companies solved plenty of tasks set up as a challenge to leaders, managers and entrepreneurs, but, today, system seems to be the brake in adjusting to rapid changes and new market needs. In this paper, we deal with the capitalization of the benefits of key players in the company's behavior by introducing new, innovative and agile operating system, which has been assigned new roles of the management structure. The new sytem is built on the basis of fluid network structure that constantly formulates and implements strategy. So there are two structures in a company, two operating systems that provide commitment to design and implementation of the strategy (such as Estée Lauder company) through agile, diverse and expensive process. The new operating system continuously evaluates leaders, managers, entrepreneurs.

**Keywords**: leader, manager, enterpreneur, complementary relationship, changes promene.

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#### 1. INTRODUCTION

In this paper, we deal with the relationship between leadership, managerial functions and entrepreneurship. In today's business environment, when most companies set survival and development as an imperative, significant changes in technology and global trends point to the problem of running the company and the existing need of implementing various concepts as well as the role of leaders, managers and entrepreneurs. For having a successful business in domestic and international markets, **IMS** is an important factor that ensures efficient and effective connectivity of the leadershipmanagerial-enterpreneurial functions. The benefits of comparison provide modern enterprises with set of methods and techniques for acomplishing the mission vision and goals, leading the business in accordance with selective demands of the market, consumers and profitability requirements.

Stereotypes about the positions of leaders, managers and enterpreneurs still appear in production-oriented organizations at the most severe level. The focus is on the current production capability while the purpose of the organization is to make products and sell it in an aggressive way. In such organizations, leader is represented as a loner at the top of the organizational pyramid. Managers are far below it and manage production and sales and at the very bottom, clearly separated, the other contributors. There are few enterpreneurs in production-oriented companies, having various production programs and a large number of workers, because, during product life cycle, they pass on their functions

to managers or leaders when they can no longer manage organization using knowledge and abilities and are no longer able to autonomously make management decisions which demand monitoring the process of its implementation. There are few large global type organizations where the founder (enterpreneur) managed to reach the leading position. Such examples are *Bill Gates* with his company *Microsoft* and *Estée Lauder*, the owner of the largest cosmetic company in the United States.

#### 2. INTEGRATED MANAGEMENT SYSTEMS

For the last 20 years, integration, synergy and communication have become more frequently used terms in scientific and national practice as well as in every day language. Its emergence and increasing use is the result of the need to exploit the immanent reserves of each system and especially of more interacting ones. This leads to the additional effect, called an extra energy system (engl. *synergy*, which stands for *System energy*).

Effects of the integrated management systems can be grouped into:

- a. The increase in value,
- b. The increase of financial power,
- c. The increase of competencies, and
- d. The increase of competitiveness.

The increase in value refers to:

- contribution to strategic, tactical and operational planning and strategy development,
- improving of the organizational culture and behaviour,
- focusing on meeting the demands of stakeholders,
- improving social responsability,
- contribution to sustainable development, and
- contribution to the life quality.

The increase of financial power refers to:

- the increase of profits, revenue and/or cost reduction,
- investing in the most profitable process improvement
- socially responsible and sustainable business.

This leads to creating of core competencies on the basis of analysis of critical competencies and development of the missing skills.

The increase of competitivness refers to its strengthening with regard to market competitors and implementation of the quality paradigm to customers and suppliers, as well as to risk reduction of the new players and substitutes of the products on the market.

Literature is very diverse in this area with different approaches, among which are the following:

- Access quality
- TQM approach
- Business excellence approach
- Knowledge management approach
- Integrated approach (Arsovski, Nikezić, 2013; Heady, 1977).

# 3. LEADERSHIP AND MANAGEMENT AS THE SUCCESS FACTORS FOR ANY MARKET ORGANIZATION

In each company or public administration, there must be leaders and managers. But the question is, are they the same people? Practice has shown that the managers do not have to be the leaders at the same time, but, on the other side, the leaders are always simultaneously the good managers. It is especially important to recognize this in health institutions, because there is a need for leaders and managers. It is also very important to do the same in large manufacturing and service companies. Regardless of the structure of the company, whether it's a hospital, clinic, insurance company or something else, leaders and managers need to ensure that the organization goes forward and that they both manage and control operations at the same time. This can be achieved by leadership (guidance) and by management of employees.

Leaders tend to focus on external (outside) way of running the organization, while managers focus on internal (intrinsic) systems of organization. Leaders need to be sure that their organization, local government or party functions well, so that they could dedicate most of their time to communicating and making agreements with external groups which will benefit and help their institution (partners, merchandisers, buyers) or influence (government, public institutions, media) on the competitiveness of the organization. (*Rubino*, 2012) Figure 1 shows leadership and managerial focus by presenting an "overlap" between the functions of leaders and managers in many areas as well as differences in performing certain duties and responsabilities.

Usually, leaders and the top management in an organization (executives, managing director, chief administrator) have the most power. The top management level reports to the leader about the various functional tasks and duties assigned to them. At the operational level, managers are at mid-level management positions (heads of departments, heads of administration, etc.) These managers can be leaders in in their fields and part of the top management at strategic level, but their focus is on internal areas within the operations of the organization.

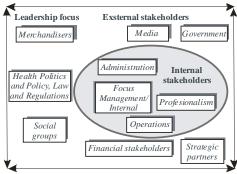


Figure 1 Leadership and managerial focus (arrows represent constant interaction between all the elements), (Source: Rubino, 2012)



Leaders are provided with a special set of competencies that recquires a much broader way of thinking and acting than managers do. Leaders have to set the goals and the path which will help organization move into specific direction. They must be able to motivate their employees, and other stakeholders, so the jobs are developing and thriving through organizational changes. A highly dynamic and turbulent environment, with rapid changes taking place, demands from leaders and organizations to have a complex system and certain regulatives in order to accommodate to changes. The leadership task is to monitor that everything goes according to plan and to avoid the obstacles that may occur all the way up to reaching the vision of an organization. Managers have the task to monitor the way work is done and to ensure that employees stick to the procedures. Managers need the other set of competencies that significantly differs from the leadership ones.

Every leader has followers. The leader has to have someone to monitor in order to achieve the stated objectives. Not everyone can be a leader. The leader must have certain qualities that will help him lead, while the followers must be willing to be led and perform the tasks given by the leader. A true leader inspires dedicated followers.

Atchison wrote about this process, abot the relationship between leaders, managers and followers, in his book "Followership" (Atchison, 2003). He describes the followers as a supplement to leadership and recommends accepting followership as a necessary component compatible with the effective leader. A true leader will recognize the importance of getting respected, but not only as a result of the consent of his followers. One thing is to have the followers who do what the leader says, and the other is to have someone to do a particular thing. The illusion of power is obvious when the followers do not respect the leaders. These leaders seem to be reckless when it comes to creating the work places for their followers.

There are many complex and related conditions in an organization so the leader can be easily found as part of the team at lower levels where, then, the role of the manager reduces and an organization focuses on the customer's needs. In such cases, leadership is critical to the market success.

Figure 2 shows the fluid aspect ratio of the boundaries between leadership, menagerial and staff position. The reality is different from the rigid boundaries which are often set in theory. In organizations that are customer-oriented (in marketing) changes are seen as common practice, and the ability to adapt is considered essential for survival.

The boundary-spanning functions are stretched and all the elements (leader, managre, staff) in the organization show the care for customers throughout the business. In this way, it is possible to gain competitive advantage which has been awarded to the organization with the higher profit.

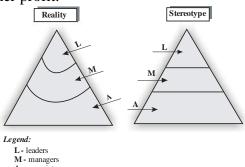


Figure 2 Leadership, menagerial and staff position in an organization (Source: Kotter, 1985)



Management is related to effective functioning of the organization and leadership to changes. (Kotter, 1998) The organization is managed by planning, organizing and control of it while management of the organization is based on the vision. By knowing customers' selection criteria, the managers have the task to fit it into the appropriate marketing mix based on marketing research, and to trace the changes in the market.

Leader conveys his ideas and achieve his goals and visions by influencing people. The influence means that the interaction between people is regulated by power, authority, knowledge and position. Hence, the leadership can be understood as the ability to influence the employees in the organization in so as to strive for the achievement of a specific goal. (Nikezić, 2011) The management goal is achieved through a vehicle of plan, production and control, while in leadership inspiration drives people to reach vision. The complementary relationship between leaders, managers and employees is a prerequisite for the customers' satisfaction which is achieved when the existing performance products or services meet or exceed their expectations.

Previous theories demonstrated low flexibility and little compatibility between leaders, managers and employees. The organization is viewed as a system that has its own logic which is based on tradition and inertia. It functioned good and it was moving into the right direction as long the things were done in a proven, already tested way but not by taking risks or searching for the new business path. (Zaleznik, 1998) In today's turbulent environment and marketing orientation, where you tend to deliver value and quality to customers in order to attract and retain their attention, the organizations cannot apply the above mentioned settings.

Figure 3 shows the synergy of an organization through a paradygm for successful marketing orientation, which is provided by the relation of complementarities of all the key factors that affect the sale of products and services as well as the profit.

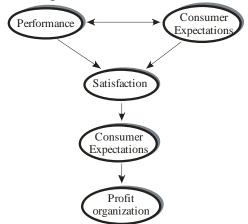


Figure 3 Complementarity of the leaders, managers and employees affects the profit of an organization (Source: Nikezić, 2011)

Leaders and managers have various positions in an organization. Starting from the fact that managers manage the organization in particular direction, leaders determine the ultimate goal of the organization by guidance (which we have already discussed earlier in this chapter). That goal is a dynamic category and it shifts with the change of the environment and the competition. It is essential for the leader to know his mission and have a vision of how to accomplish it. He needs to be at the forefront of every change in an organization. This allows the organization to redesign its structures, ensure the competitive advantage and stay on top in the market.



The charts 1, 2 and 3 show various roles of leaders and managers in organizations (local governments, companies and parties). Different authors approach this relationship from different angles with contrasts that have the commmon model basis.

Chart 1 Leadership versus management competencies (Izvor: Rubino, 2012)

Leadership	Management
competencies	competencies
Setting the	Deployment
guidelines and	of staff
the goals	
Motivation of	Resource
stakeholders	control
Be an effective	Monitoring
speaker	and control
Determine	Monitoring
strtegies for the	compliance
future	with
	regulations
Transformation	Consultation
of the	of employees
organization	

Chart 2 Different positions and roles of leaders and managers in the organization(Source: Bennis, 2003)

Leader	Manager
Deals with the future	Deals with the present
Deals with the uncertainty	Deals with the certainty
Works with probability	Works with confidence
Focuses on decisions	Focuses on facts
Formulates questions and problems	Finds answers and solutions
Looks for the differences	Looks for the similarities
Leads to the new place	Cares to retain the existing position
Educates	Applies
Independent perosnality	Good operative
Challenges status quo	Accepts status quo
Innovates	Imitates
Original	Follower
Developes	Maintains
Focuses on people	Focus on organizational structure
Trusts	Organizes and controls
Strategy oriented	Operationally oriented
Asks what and why	Asks how and when
Vision and mission	Focus on market
Leads	Manages

Chart 3 The difference between the leader and the manager (Mihailović, Ristić, 2011)

Leader	Manager
Governs	Manages
Creates vision	Turns vision into reality
Speaks	Listens
Offers hope	Analyze the situation
Empowers	Gives directives
Inspires	Measures
Thinks strategically	Thinks tactically
Takes risk	Controls
Expects	Demands

Sharon Parks made a distinction between management and leadership. It all came down to the difference between the role of the leader and the manager roles. Analyzing the differences between these two concepts Parks points out four basic dimensions representing the essence of the differences:

- Leadership versus authority,
- Changes versus technical solutions,
- Progress versus power,
- Personal characteristics versus behaviour. (Parks, 2005)

Leadership versus authority, represents an essential leadership competency that should enable mobilization of people, that is trust and honesty followers should feel for leader. Thus, he can easely solve the current problems but, at the same time, focus on the redefinition of the same problems and provide the conditions for a change. He has the task of establishing disequilibrium in the organization so he could later, after changes took place, restore its equilibrium at a much higher level. His authorization is, often, limited. New behaviour can often cause stress, conflict, losses and risk. The leader usually has to act beyond its powers because of all the above mentioned facts and his true value and visionary perception is assessed through the process of taking the risk and having the courage to act outside the given limits.

Changes versus technical solutions, adaptations and necessary organizational changes that require development from a leader through learning and creating new patterns of behaviour which will enable innovation to meet the challenges of the environment. In this case, leadership demands more than technical patterns and routines because the transformations imply giving up of the long science experiments and conservative values. Technical solutions and possible technical problems can be solved with approved or accepted procedures of operational character, in particular.

Progress versus power indicates willingness of the leaders to properly deal with the necessary changes because, here, we deal with progress in a turbulent environment with lots of unknown variables. Everything is uncertain and unfamiliar in such environment. The only thing that is certain, in such circumstances, is that the leader needs to act effectively and make smart moves. To achieve it, he needs strength and the cooperation of followers who must be able to adapt to the new way of work, life and business.

**Personal characteristics versus behaviour**; Leadership is basically the process of permanent adjustment to changes in environment. Personal characteristics of the leaders are crucial to function of the complex systems and conditions. An effective leader must respond to crucial challenges. Therefore, his primary task is to lead the organization to the higher level of competitiveness. For fulfilling the task, his behaviour is less

important in terms of authority and social domination of personal characteristics of a primary standard. (*Parks*, 2011)

The primary and the most characteristic differences between leaders and managers are:

- manager invests, the leader innovates,
- manager is the copy (conditionally stated), the leader is the original,
- manager accepts the reality, the leader embraces the vision,
- manager maintaines the existing situation, the leader developes the new condition,
- manager is focused on procedures and structures, the leader is focused on people and interpersonal relationships,
- manager controls, the leader inspires,
- manager is focused on short-terms results, the leader focuses on long-term results,
- manager asks when and how, the leader asks what and why,
- manager accepts status quo, the leader accepts challenges,
- manager is a good operative, the leader is a leading officer, and
- manager does things the right way, the leader makes the right moves.

Nobel prize-winning economist of 2010, *Elinor Ostrom* and *Oliver Wiliamson* belive that there is too little guidance and too much control in today's organization. (*Williamson*, 1998) To operate in turbulent environment today, we need to obtain greater influence of leadership and management.

This complementarity between leaders, managers and employees is lost in the United States, as well as, the benefits of such a relationship. Consequently, it led to a huge economic crisis, which will by all the indications continue for at least another five years. Today, the United States, as the most developed country and of the strongest economy in the world, tries to restore its stability by depriving managers of certain rights, such as the increase in salaries and enormous bonuses at the end of the year, which are not necessary related to the realized profit. The biggest increase in salaries and the bonuses were earned in automotive industry and banks. In response to these criticisms, the president of the United States formed an organization called TARP - this program was designed to help those whose property was affected-with the mission to rescue those who employ millions of people yet whose business is in danger. President Barak Obama himself appointed Kennetha Feinberga for his assistant, whose job was to set limits on managers' compensations in automotive industry and financial sector. The government appointed an official who had a lot to do with business and who knew how to determine managers' salaries in multinational companies and banks. There was no increase in managers' salaries and bonuses in automotive industry any more, regardless the achieved results. (Ostrom, 1990; Ostrom, 2012)

Elinor Ostrom does not separate private from the common property and believes that the common ownership enables the existence of the private one. She has not only theorized. She has done some research in practice arguing that people are not selfish by nature and will not easily destroy public property. However, the structures of the traditional communities have efficiently and consistently maintained the common property, the protection of natural resources and scientifiic network. The problems of the multinational companies arise when the managers do not take an interest in the environmental conditions and the needs of other people, but their own interests. The state had to intervene directly and stop the insatiable managers' ambitions. (Ostrom, 2002)



Today, we need new ideas to survive in the market. It is necessary for the world economy, more than ever, to ensure the complementarity between the leaders, managers and employees. Managers haven't always worried about how much it costs and what is the price of their products and services. Today, we need a new concept to connect to customers, their satisfaction and value they expect to get for their money. The manager's task is to achieve maximum efficiency and effectiveness while the leader's task is to tackle with valid concepts and offer new, innovative and up to date ones which apsolutely meet customers' needs. A prerequisite for such a situation is to establish an organizational model that provides a response to the changing environment. Those are high-performing organizations with all level leaders who think of themselves as winners and see risk as the opportunity for long-term growth and development. Management structure must follow the vision and the mission of a leader taking into account the costs, on one side, with customers' satisfaction and the profit of the organization, on the other. The key success stays in transformational changes and rapid determination of the existing problems. (Nikezić, Purić, Purić, 2012)

#### 4. RELATION BETWEEN ENTERPRENEURSHIP AND MANAGEMENT

Enterpreneuship is usually associated with the conception of the small and medium-size enterprises operating in all economy sectors. These enterprises, according to the economic parameters, have small business range, little capital invested and small number of employees. They structurally fit into the commercial space uncovered by big enterprises and they perform tasks or non profit jobs for large companies. These companies are usually established by an individual, an enterpreneur, who is, at the same time, the owner and the manager of the company. He makes all decisions by himself and bears the risk for his business. The companies have relatively low degree of specialization of the jobs, management and business functions. Jobs are, typically, of the local character from the standpoint of the market and the employment.

With developing the business in enterpreneurial organizations, a need for hiring the managers as distinct personalities becomes enevitable because an enterpreneur cannot perform all management functions by himself. That's why he has to engage one or more managers and delegate the part of his management and leadership activities. Managers report to the enterpreneur who hired them.

The roles of enterpreneurs and managers suggest different sources of motivation and different types of personal skills. The distinction between enterpreneurs and managers is equal to the distinction between inventors and engineers. One developes the drafts and the other ensures the machines work well. The business will always benefit from innovators (enterprenurs) and their innovations.

The enterpreneurs create, develope and improve new products and services by using their ideas and imagination. The enterpreneurs need to have confidence and believe in their ideas and imagination in order to fulfill their dreams.

Managers are to solve management problems adhering to the theory and the practice of management with well-known and previously applied procedures and processes. Managers operate with less risk and no influence of emotions because they are not the owners of the capital. They always assess new chances and dangers or think sharp when making strategic and operational decisions. They point to the sense of work value to their partners, act decisevely and certainly determine the responsabilities and the structure so as to support the joint efforts in achieving entrepreneural ideas.

Figurec 4 shows the model of the successful cooperation between entrepreneurs and managers in entrepreneural companies which represents the respect for values of the



customers and their product or service satisfaction as well as the company's realized profit.



Figure 4 The success as a result of the entrepreneural and managerial complementarity (Source: Nikezić, 2011)

Menagerial spirit is wide but not deep. That is the reason it needs the complementarity of entrepreneurs. The rapid business climate change and associated obsolescence corresponds to enthusiasm and flexibility, imagination and courage, optimism and wit, humanity and stability, intelligence and diligence, honesty, ambition and energy of the entrepreneurs. However, the entrepreneurial organization with no managerial control would be like a ship without a helmsman. He must take into account time, speed, team work, performance and risks of the turbulent environment. Entrepreneural organizations need to have managers and entrepreneurs with exceptional personal qualities. The work effort is surely guaranted by an entrepreneur because of his invested capital but knowledge, on the other hand, is guaranteed by the manager. Managers need to make balance between imagination and courage and knowledge in general culture and awareness or general and specific knowledge areas related to the business of the entrepreneur, his personal organization at the work place and training, learning and assessing the skills of the staff along with their willingness to make decisions in cooperation with the managers.

Figure 4 shows the relationship between an entrepreneur and the manager starting from their personal qualities, knowledge and skills.

Chart 4 The distinction between an entrepreneur and the manager

Entrepreneur	Manager
Entrepreneur is always the manager	Manager is not always the entrepreneur
Entrepreneur identifies with the	Manager identifies with the function
company	
Entrepreneur is emotional	Manager is cognitive
Entrepreneur possesses technical skills	Manager possesses professional skills
Entrepreneur is a visionary	Manager is a rationalist
Entrepreneur is independent	Manager is dependent
Entrepreneur takes risks	Manager does not take risks
Entrepreneur is an innovator	Manager is a bureaucrat
Entrepreenur is motivated by the	Manager is motivated by the reward
success	

Various concept approaches of the entrepreneurs and the managers influenced the existence of numerous definitions that differ significantly among themselves. Economists define etrepreneurs as people who invest in the means of production (material, labour,



machinery), solely for the purpose of generating profit. (Dubrin & Ireland, 1993) Recognizing the importance of the human relations in an organization, Mary Parker Follett defined managenemt as art performed in cooperation with people. (Mery Parker Follett, 2003) Figure 5 lists the characteristics of the successful entrepreneur.

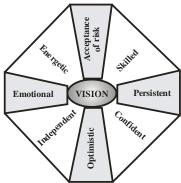


Figure 5 The ring of entrepreneurial success (Source: Nikezić, Matić, 2011)

In the area of examining the relationships between the entrepreneurs and the leaders, there were other authors who contributed to model forming applicable in practice. Figure 6 demonstrates the model of connecting the strategic management with the entrepreneurship.

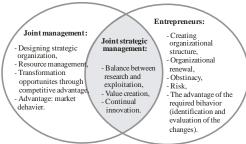


Figure 6 Strategic cooperation of entrepreneurship and management (Taken and adapted from Ireland and Webb, 2007b)

In small and medium-sized entreprises run by entrepreenurs, decisions are made by the few ones which significantly simplifies management. A man can successfully resolve such problems but when he is not able to do it by himself, he can easily find a specialist to help him solve it. Figure 7 shows the control mechanism of the Italian company specialized in production of branded chesses that have long-term cooperation with mega-markets in the region. The factory employs 50 workers and the owner takes special care of the major buyers. It is an interesting fact that during a fifteen yaer period of cooperation with one of our companies, the owner was always the only participant from the company on most of the lunches we had with our guests. The owner controls all the expenses and the small number of employees proves the justification of the expenses made. (Tomić, 1996)

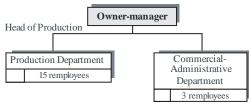


Figure 7 Management of small enterprises for the production of branded chesses (Source: Nikezić, Bataveljić, Matić, 2012)



In order to achieve this profiled economic structure, it must be based on the strong economic policy, which carries the main and, at the same time, provide a favourable position for clustering of small and medium-sized enterprises in various fields of activity. A typical example is Italy which despite many years of stimulating economic and social measures in several important sectors of the economy has not conducted the complete, but only partial privatization. It is estimated that only half of the production economy of **Italy comes from the private sector**. (*Nikezić*, *Bataveljić*, *Matić*, 2012)

Even few professional people knows what John Kenneth Galbraith said: "No industry is as unique as the watch industry in Switzerland. However, it should be noted that for about half a century, the mechanisms of almost all Swiss watches were made by a single company, initially sponsored by the state. Boxes, bracelets for the watches, package material and advertising was the act of the private entrepreneurship. In other countries, this type of state arrangement was considered as a conflict with fundamental principles of free enterprise, but that seemed not to give the Swiss a headache." (Galbraith, 1977) In France, also, certain banks (Societe Generale) and car manufacturers (Renault) function as universal european subjects regardless the change of the owners (state, shareholders, others).

We can conclude that entrepreneurship provides great opportunities for achieving the overall quality of products and services, and that entrepreneurs need to find managers who will together improve relation between economic efficiency and social optimum (figure 8).

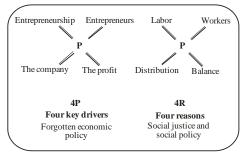


Figure 8 Economic efficiency and social optimum (Source: Nikezić, Bataveljić, Matić, 2012)

Figure shows the manner of adjustment which involves the use of the new labor system and completely new understanding of the essence of labour and result performance. The optimum between profits, entrepreneurs, shareholders and commercial distribution of work to employees represents a paradigm of the new equilibrium in the economy. (Tomić, 1996)

Problems that may arise include small structure and business culture congruence of partner companies, lack of legal and financial opportunities for cooperation, lack of long-term entrepreneurial spirit and the absence of expertise, low level of mutual trust among its partners and other institutions, lack of partners' knowledge and vague or unrealistic expectations from cooperative relations. In cooperation with other representatives of small and medium-sized enterprises, these would be the problems that an entrepreneur, along with his management team, needs to solve in order to clearly focus on the key areas that are virtually predictable and that have a strong synergy of common identities.



#### 5. CONCLUSION

In the human society, the roots of leadership are related to primates, where there was a clear hierarchial organization with differences in dominance within the species. Another feature was the ability to imitate: primates of a lower status imitated the actions of the primates of a higher status. There is a similar situation at children of preschool age. Less dominant children subordinate themselves to dominant children and imitate or accept patterns of their behaviour. (Gardner & Laskin, 1996)

An eighteen month old child is already aware that he exists as an individual. Then, it begins to look similarities to the others in the region. Sigmund Freud called the process identification. A child can usually identify with the parent or an older child of the same sex. There are few cases when a child identifies with the child of the same age. A five year old child already understands the position of a leader and its place in the hierarchy. Education is an important factor which affects the formation of the leader, because, in certain areas, more knowledge can influence the position of the leader and the exercise of the leader's potential. Gardner and Laskin consider that over 60% of the UK's leaders have lost a parent during the childhood, usually the father. Also, some of the world's leaders (Hitler, Lenjin, Staljin and Gandi) had a good relationship with one parent and bad with the other. Of course, all these assumptions do not prove the rule because some other studies have shown different results.

However, what is much more important in order to understand the relations between leadership and entrepreneurship is the combination of these two methods of managing production processes, because the relation between leadership and entrepreneurship must primarily stay bound to production processes. Leadership and entrepreneurship are used in an organization to achieve the expected level of sales in the target market. The complementary relationship between leadership and entrepreneurship is a characteristic of almost all sucsessful multinational corporations, where young people as dynamic entrepreneurs "finished" as extraordinary global market leaders. Entrepreneurship undoubtedly starts with the vision. It is the case with almost all prominent entrepreneurs, such as Henry Ford, Spike Lee, Ross Perot, Stive Jobs, Bill Gates, Estée Lauder...

Way back in1976, Amancio Ortega and Rosalia Mera founded their entrepreneurial company called "ZARA". "ZARA" has gradually become the world's global trend and, on the 31st of October 2012, it had its 1.721 stores around the world for the adults and 187 stores for children. Figure 9 represents the company's supply flow (from the factory to the retail stores). One of the main philosophies "ZARA" company is based on the idea that fashion, just like the food, has a limited shelf life: fashion trends change rapidly. The style, consumers want this month, may not be the same in two months.

As an entrepreneurial company, "ZARA" holds to the established values, beliefs and its culture. The company keeps small stock of clothes as they do not want the surplus items that are no longer in fashion. (Nikezić, 2012) Main drivers of the success of this entrepreneurial company are reducing inventory to a minimum, store product placement and fast responses to market needs. "ZARA" company uses its shops to find out what costumers really want, what is the best selling design, which colours are popular, which are the best selling items and which are a total failure. It uses sophisticated marketing information system (MISS) and provides the feedback to the head of the company. It enables her to adapt to the market needs. (Carroll, 2005)



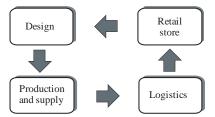


Figure 9 The company "ZARA": Supplying which is guided by the market (Source: Nikezić, 2012)

In the future, leaders will be those who are always on the verge of new knowledge and predisposed to it. The future science of leadership will be more oriented towards the phenomenon of early leader detection in order to upgrade the early stages formation. Today's leaders upgrade according to the principles of training already proven managers.

There were leaders even in ancient Rome and they were of great importance in the process of constructing the Roman aqueducts (in this case, there was a leader, Marcus Agripa, who was supported by the emperor Augustus, and an entrepreneur Frontin who turned their ideas into reality). One of the most magnificient aqueducts Rome had ever had was built this way and, unlike the Greek constructions, they had the practical usage. To Romans, everything that was useful was already nice. That is the first postulate of entrepreneurship. (Arsovski, Nikezić, Vladetić, 2012)

You need the entrepreneural talent for leadership guidance. Some studies have shown that there is an overlap between the two terms. Enterpreneurship can often work outside the context of the businessman. Other studies have shown that training in entrepreneurship and leadership has a lot of functions in common.

The definitions of leadership and entrepreneurship were established through the examination of their conceptual blocks which is the basic idea of the proper use of the words. This is accomplished through the following phases:

Analysis of the concept of the term entrepreneur through samples of the texts and the articles.

Analysis of the concept of the term leader through the samples of the texta and the articles.

Conceptual comparison of the samples of each term with overlaps and differences. In practice, several models are adopted, depending on the situation and the socioeconomic environment at which a leader or an entrepreneur operates. There are some conceptual overlaps in leadership and entrepreneurship, but there are also some clear conceptual differences between them. Leadership tends to connect more to people, their communication and social skills. Entrepreneurship ,on the other hand, tends to associate with a personal quest in identifying market opportunities in the turbulent environment. In reality, in certain situations, individuals can express many or few leadership or entreprenurial characteristics and identify with them. It is hard to find an archetypal entrepreneur or a leader who demonstrates the conceptual features identified in figure 10.



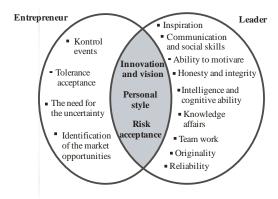


Figure 10 Comparison of the concepts of leadership and entrepreneurship (Source:Perren, 2002)

Some organizations flourished at the specific point even though there were no significant changes occuring in the environment. The most common cause of "flourishing" is provided with leaders, managers or entrepreneurs who appeared to be new in an organization. The organization immediately reacts to the appearance of the right persons, because they affect the business climate the positive way and increase the effectiveness of the organization. *Figure 11* shows the complementary relationship between the leadera, managers and entrepreneurs.

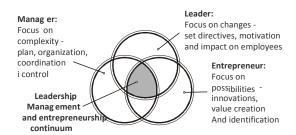


Figure 11 Complementarity of the relationship between leaders, managers and entrepreneurs in the organizational continuum (Adapted from Dover & Dierk, 1980)

It is very important for an organization to have its own culture respected by most of the employees. That is the way it provides energy to develope plans, make decisions, control and initiate the operations that have already started. Human resources are used in the best way possible. It increases the efficiency, effectiveness and labour quality that directly improves the quality of products and services. It increases the customers' satisfaction and the value of its performance and therefore brings more profit to the organization. Complementarity of leaders, managers and entrepreneurs at different levels of the organization and different business conditions is a prerequisite for the success of an organization as a result of the leadership - management - entreprenurial relation.

#### **Entrepreneurial matrix Estée Lauder**

According to Goleman's emotional competence structure and his theoretical-methodological approach, *Estée Lauder* is categorized as the company of emphasized social competencies where an indiviual (a leader or an entrepreneur) is aware of the others, their needs and interests (*Goleman*, 1995) *One of the components of social consciousness is the service orientation, which is defined as a process of predicting (anticipation), identifying and meeting consumer or client needs. Estée Lauder,* the



owner of the cosmetic *Estée Lauder Companies*, has developed an innovative program "gift with purchase", in order to increase customer satisfaction by anticipating, recognizing and fulfilling their desires. Towards the end of her life, she was still thinking about the needs of the company's customers. "If you don't sell the product, the problem is not in the product but you. When you stop telling the story, you lose a customer. When you turn your back just for a moment, you've already lost a customer. "(Estée Lauder, 2003)

High Touch Leadership Competencies Model is the heart of the organizational learning and the development of the strategy of Estée Lauder's company. The model provides a map of the behaviours and the qualites of employees, which serves them as "a lead", through the company and the teams, and leads the company itself, without exception. High Touch Leadership Competencies Model is an exciting and essential tool that helps all employees to achieve high level of labour performance and good personal and company's results. There is a program of global learning and talent development in the organization. The unique company's culture is designed to nurture talent, develope innovations and create leaders. There are various skill development programs designed for talented leaders. Thus, one support education at all levels or recognizes and reward talents at the same time. Personal and professional development of the individual is provided through workshops, participation in forums, cross-functional project teams, global leadership programs and education programs at the executive level (Career Development - Estée Lauder Companies, 2012)

Estée Lauder defines 15 rules for entreprenurial success - 15 secrets of the success. (Estée Lauder Success Story, Case Study)

- 1. Find a suitable location.
- 2. When you feel angry do not write to anyone.
- 3. You will get many more bees if you already have honey.
- 4. Keep your eyes open in front of your opponents (watch out for the competition).
- 5. Divide and conquer.
- 6. Learn to say no.
- 7. Trust your instincts,
- 8. Keep your opinion about the workplace and your partners for yourself only.
- 9. Think.
- 10. Accept your mistakes.
- 11. Engage the best.
- 12. Tear the barriers down.
- 13. Give the credit where you think the credit shoul be given (if you have any interests).
- 14. Train the best salesforce.
- 15. Write your thoughts secretly (confidential).

Estée Lauder has developed Synergistic Selling, as well – **How to be a great seller**: <u>Sell Your Sell Your Company x Sell Your Product</u>. (make an effective presentation)



Sales synergy: Sell yourself x Sell your company x Sell the company's product



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### SOME PARAMETERS OF RTB BOR BUSINESS ACTIVITY

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**Abstract:** Mining and smelting company RTB Bor carries on achieving positive business results. Copper production increases, as well as incomes, while net profit decreases, due to decrease of price of copper at the World Market.

Investments continue in 2014. Results of previous investments are visible, and their true effects are still to come. Cerovo mine is reactivated, while Coka Marin is being prepared for commercial production.

Regardless on numerous qualitative changes in recent years, the company is still facing many problems and difficulties. First of all, restructuring process has not ended, nor the company's final status. This also means that the question of strategic partnership isn't solved yet. These are all preconditions for improved economy and sustainable development of the company.

**Keywords:** positive business results, investments, company status.

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#### 1. INTRODUCTION

More than two decades ago RTB Bor was hit by a heavy crisis. Once famous and respected company, due to objective circumstances (Yugoslavia breakdown, UN sanctions, NATO campaign), but also due to some internal weaknesses, went down rapidly [1]. Production was reduced drastically, there were no investments and business losses became usual.

By the middle of previous decade, crisis was at its maximum. Production went down to 11,997 t of copper per year, with 9,343 t from company owned mines and 2,654 t from imported ore concentrate. Doubts in company's further existence were very strong [2].

Big turnover in company's business results started in 2005. Since then, with minor oscillations, business activities grow constantly. Based on economic indicators in recent years, we could say that company is on its way out of crisis. This paper provides analysis of some economic parameters in a period between 2008 and 2013 [3].

# 2. PRODUCTION DYNAMICS

Trend of production growth, started in 2005, continued in period between 2008 and 2013. From 18,550 t of copper in 2008, production reached 32,606 t in 2013, which is a 75.8% increase.

However, regardless on obvious improvement, production level is still well behind the level achieved in early 90's, it reaches less than 1/3 of it [4]. Also, level of copper production from imported copper concentrate is very low.

Beside copper, in 2013 RTB Bor also produced 866 kg of gold, 5,121 kg of silver, 15,727 t of selenium, 25 kg of palladium, 1,273 t of copper glance sulfate, 94,113 t of sulfuric acid and 471 t of battery acid.



On the other hand, low ore grades are still present in ore deposits. In observed period, mean copper content in the ore was between 0.247% and 0.289%.

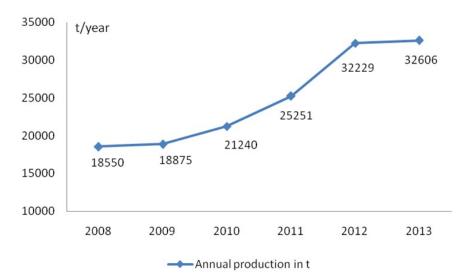


Figure 1 – Production flow for copper produced from company owned mines

#### 3. ECONOMIC RESULTS

Long – term crisis, naturally, had a very strong influence on economic parameters of the company. Financial results were negative year after year. In 2008 and 2009, financial loss reached 6 billion RSD [5].

In 2010, after years of loss, company finally records positive results and profit. Unfortunately, in 2011 it recorded an 800 million RSD loss again, regardless on increase of business activities and income by 30%.

Position	2008	2009	2010	2011	2012	2013
Incomes	8,938	8,810	18,390	23,654	30,523	28,427
Outcomes	11,621	12,043	15,620	20,597	25,589	27,804
Profit-loss	-2,683	-3,233	2,769	3,057	4,934	623
Financial incomes	892	165	1,211	1,893	1,842	1,728
Financial outcomes	4,528	2,521	6,082	5,633	5,699	2,355
Non-business and extra incomes	86	82	2,972	1,455	1,961	691
Non-business and extra outcomes	400	327	794	1,662	1,154	567
Profit-loss from regular activity	-6,632	-5,834	77	-801	1,884	113
Aborted business loss	-54	-	-49	-	-	-
Net profit-loss	-6,632	-5,834	28	-801	1,884	113

**Table 1** - Consolidated success balance, in million RSD [4]

Last two years of observed period ended with profit, but in 2013 profit was only 113 million RSD, which is 6% of profit gained in 2012.

Financial results are strongly affected by price of copper at the world market (LME). The price varied strongly in observed period.

Maximal price was reached in 2011, 8,821 US\$/t. However, RTB Bor still suffered the loss that year, due to excessive outcomes. Lowest price in this period was in 2009, only 5,150 US\$/t, when the company recorded highest loss in observed period.



Beside, financial results are also affected by net copper production cost. In observed period, production costs varied between 6,453 US\$/t and 7,563US\$/t, which very high. High production costs endanger company's position on the market and reduce its competitiveness. [5]

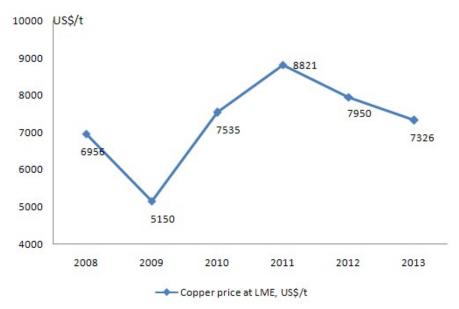


Figure 2 – Variation of copper price at LME

#### 4. EMPLOYMENT AND WAGES

Increase of business activities affected the state of employment. Number of employees increased significantly in last couple of years, mainly in Majdanpek and management department. By the end of 2013, there were 5,210 employees in the company.

Unit	State of employment at 31.12.						Net wages (annual average in RSD)					
	2008	2009	2010	2011	2012	2013	2008	2009	2010	2011	2012	2013
RBB Bor	1,986	1,872	2,088	2,048	2,267	2,249	34,676	37,027	40,619	59,354	69,702	69.953
RBM Majdanpek	988	952	962	946	953	1,119	34,026	35,811	40,056	59,184	69,349	64,297
TIR Bor	1,830	1,731	1,706	1,681	1,680	1,630	34,633	37,165	40,574	59,225	67,745	72,447
Company manageme nt	84	93	114	125	129	212	42,055	45,138	50,722	68,904	72,388	62,000
Total	4.888	4,648	4.870	4.800	5.029	5.210	34,651	36,983	40,701	59,515	69.036	69,162

Table 2 - State of employment and wages [4]

#### 5. INVESTMENTS

Investment activities continued in 2013. Investment cycle has a 4 year continuation, and includes entire copper production line. Mining equipment, including transport, loading and auxiliary equipment for open pits and underground mine was entirely renewed; transport systems for pulp and industrial water was installed in Veliki Krivelj mineral processing plant; also a part of mineral processing plant has been renewed; reconstruction works in Majdanpek processing plant were postponed for 2014.

The most important project for entire RTB Bor is reconstruction of smelting plant and new sulfuric acid and water factory. Total amount of investments in 2013 reached 89,976,000 US\$, with 21,271,000 US\$ invested in mining and 68,705,000 US\$ invested in metallurgy.

# 6. CONCLUSION

Qualitative business changes, like production growth and positive financial results, that started couple of years ago, have continued in 2013, too. Investments in mining and metallurgy are continued, while complete effects of investment cycle are expected after the end of major project, which includes reconstructed smelting plant and new sulfuric acid factory. At the same time, the company manages to increase the number of employees and improve their life standard at the same time.

However, there are many unsolved problems from the past that still burden company's business activities. The most important are high financial obligations, dated before 2009, that reach 1,218 million US\$. According to Serbian Government, this problem should be solved in two ways: by conversion of entire Government owned creditors' claims into Government's shares in the company, or, by individual agreements with each creditor, along with partial write off of claims.

Company status is also yet to be determined, and that is the one of preconditions for strategic partnership. Also, a new organization model is planned, with a single integral company, instead of four separate units that currently exist.

Permanent financial stability and long – term sustainable development is a target not only for RTB Bor, but entire community, considering the importance of the company for development of Bor and Eastern Serbia.

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# THE COST OF LOGISTICS ACTIVITIES IN BUSINESS FOR THE TRADE OF PHARMACEUTICAL PRODUCTS TO WHOLESALERS AND THEIR ROLE IN THE POLICY RATE OF PRODUCTS

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Abstract: The aim of this paper is to examine the role and importance of the cost of logistics activities of the company in trade of pharmaceutical products to wholesalers, and their role in the policy rate of products on three examples from practice (a drug from both "positive and negative list" and medical devices). Under current conditions, considering pricing policies of the Government of Serbia and using selective enforcement of existing regulations, the import of medical devices for wholesale is more cost-effective than importing drugs from either positive or negative list.

**Keywords:** logistics, wholesale, logistics costs, the method of direct costs.

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#### 1. INTRODUCTION

Wholesale, in a broader sense, implement the two main types of services: the services provided by the manufacturers (storage, transport, care about their products, etc.) and services provided by retailers (delivery, risk of maintaining inventory, saving time in the acquisition, analysis of the market, etc.) [1]. The role of wholesalers is to ensure the smooth movement of goods from the sphere of production to the sphere of consumption using their overall activities [2]. Any delays that may occur in this way have a negative impact both on production and consumption. At this respect the important role is played by business logistics [1]. Without a successful and harmonious functioning of its individual segments - transport, storage, handling of goods, etc., wholesale could not successfully execute the indicated task [2, 4].

Generally speaking, the challenges of operating wholesale are usually large with respect to meeting the requirements of the different interests in terms of product range, quality, quantity as well as the spatial and temporal demands [3]. When it comes to wholesale distribution of pharmaceutical products, processes become more complex, bearing in mind the special requirements pertaining to this important segment of the health system functioning, thus the economy and society as a whole [5, 6].

The main elements of the drug wholesale distribution system are: storage of medicines and medical equipment, transportation vehicles adjusted to the specific needs of the transport of drugs, information systems containing application software, procedures of controlled inventory management [5, 6]. Pharmaceutical distribution channels provide the delivery of pharmaceutical products to the right place at the right time and in the



required quantity. Participants in the distribution channels are producers (at the beginning of the flow of products), followed by the wholesalers and finally the retailers (pharmacies, medical centers, specialty stores, etc.) delivering the product to the final beneficiaries. Though not the only, major business activities of wholesale pharmacies are traditional logistic functions.

The essence of the logistics concept is exactly reflected in the fact that the real stuff gets in the right place at the right time and in the required quantities [7, 8, 9, 10]. Therefore, the application of logistics concept in business operations brings many benefits to the wholesales: better economy of resources and time, lower costs, higher profitability as well as better market positioning and a higher level of competitiveness [11, 12, 13].

#### 2. LOGISTICS COSTS AND THE PRICE OF PRODUCTS

Logistics costs include the cost of all activities undertaken for the purpose of designing, planning, directing, managing and regulating the flow of goods, energy and information [4, 11, 12]. These costs represent an economic measure of "successfull functioning" of logistics system. Basically, they "are the monetary expression of the value of consumption of resources involved in performing the functions of marketing logistics". It is the cost of transportation, storage, handling of goods, supplies, packing, insurance, shipping a favor and so on.

Costs incurred in the logistics system are included in the product price. In this sense they can be regarded as a component of cost. In preparing cost calculation, logistics costs are usually treated as costs of purchase. As such, they are added to the invoice price of the work in calculating the purchase price [14, 15, 16, 17].

$$Ip + Cp = Pp$$

where: Ip is invoice price,

Cp are costs of purchase (logistics costs),

Pp is purchase price.

The price difference (slippage) is added to the purchase price resulting in the sales price. In the case of goods liable to tax, the sales price is increased by the sales tax. The structure of the retail price:

The invoice price

+ Costs of purchase (logistics costs)

The purchase price

+ Slippage

Sale Price

+ Sales Tax

The retail price

There are several ways of reckoning logistics costs (costs of purchase) in the product price. In practice, the most commonly used is method of direct costs.

#### 2.1. The Method of Direct Costs

The method of direct costs is applied when the logistics costs can be identified and allocated to the holders. It is mainly used in the traffic of only one type of goods. Then

the total logistics costs are divided by the quantity of goods on the market and so the resulting costs per unit of product are added to the invoiced price. The sum of the invoice price and its subsidiaries (logistics costs) gives the purchase price [3, 4, 10, 11, 13].

Company "A", for example, procured goods "x" in the amount of 20,000 kg at a price of 400 dinars per kilogram. Logistics costs are: 100,000 dinars for transport; 80,000 dinars for storage; 50,000 dinars for handling; 72,000 dinars for inventories and other costs in the amount of 52,000 dinars.

$$Q \cdot Ip = Iv$$

i.e.

 $20.000 \cdot 400 = 8.000.000$ 

where:

Q is quantity of goods purchased, Ip is the invoiced price and Iv is the invoiced value.

# Logistics costs:

- Transport	100,000
- Storage	80,000
- Handling	50,000
- Inventories	72,000
- Other costs	52,000

Total of 354,000

where:

ut1 - average logistics costs per unit of quantity procured, UT1 - the total cost of logistics, Q- quantity of goods.

The average logistics costs per unit of production "x" are 17.7 dinars. Based on the data, purchase price is calculated as

$$Ip + ut1 = Pp$$
  
 $400 + 17.7 = 417.7 \text{ dinars}$ 

Using the method of direct calculation, on the example of the procurement of drugs and medical devices imported by a Belgrade wholesaler, the total logistics costs are calculated, along with their shares in trade and the structure of the logistics costs and presented according to the main logistics functions (activities).

Table 1 shows the results of the final analysis of the participation of costs in basic logistics activities as well as the total cost of logistics in the invoiced price or value for



the three examples from practice (a drug with "positive list", a drug with a "negative list" and medical devices) in percentage. Also, the structure of the overall logistics costs, depending on the particular function of logistics for the examples given in the above mentioned percentages is shown.

**Table 1.** The structure of the logistics costs for a drug with "positive list", medical devices for single use and a drug with a "negative list"

Ampoules with Cytostatic (positive list)	Transport	Storage	Cost of storage and maintenance of inventories	Administr ation and processing orders	Other costs	Total costs of logistics
% Share of the cost of logistic function in the invoiced price / value	4,64	2,35	1,88	1,62	1,49	11,97
% Share in Total logistics costs	38,74	19,60	15,68	13,53	12,45	100,00

Medical devices for single use	Transport	Storage	Cost of storage and maintenance of inventories	Administr ation and processing orders	Other costs	Total costs of logistics
% Share of the cost of logistic function in the invoiced price / value	4,50	7,63	2,73	1,42	1,47	17,76
% Share in Total logistics costs	25,36	42,94	15,40	8,03	8,27	100,00

Medicine with the negative list	Transport	Storage	Cost of storage and maintenance of inventories	Administr ation and processing orders	Other costs	Total costs of logistics
% Share of the cost of logistic function in the invoiced price / value	5,10	5,80	3,25	1,66	2,38	18,20
% Share in Total logistics costs	28,03	31,88	17,86	9,13	13,10	100,00

#### 3.CONCLUSIONS

The share of logistics costs in total business wholesalers in the new millennium is of great importance without a hint that it will soon change. The largest share of logistics costs wholesalers is still in transport and storage, but the upward trend in the cost of maintenance of inventories is expected.

Because of the clearly defined impact on the final purchase price of the product, and therefore profits, the need for responsible corporate entities imposes so that logistics costs, their identification and proper management should be given special attention.

The exact calculation of the cost of logistics in practice is almost impossible, although there are some well developed theoretical models. Assessment methods give satisfactory results only for simple procurement patterns used, whereas for other purchases the most applicable method is the method of direct costs.

Pricing policies of the Government of Serbia, using selective enforcement of existing regulations, largely renders meaningless economic logic of supply of drugs from abroad. Under current conditions, the import of medical devices for wholesale is more cost-effective than importing drugs from either positive list or negative. In addition,

delays in settlement of obligations to health care facilities (and indirectly wholesalers) by the Republic Health Insurance Fund makes the cost of maintaining of inventories even higher.

Without the help of foreign partners (producers) who continue to" cover" exchange gains (the question is how long), the absence of profit as a long-term commercial motive for the purchase and sale of such goods would not exist, therefore any shortage of medicines in Serbia would not be unexpected.

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# THEORETICAL CONCEPTS OF RURAL TOURISM AND OPPORTUNITIES FOR DEVELOPMENT IN THE REPUBLIC OF SERBIA

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Abstract: Rural tourism is tourism of local character, initiated and controlled by the people who living in that local community. Rural tourism offers new opportunities and possibilities for economic prosperity of the local population, and also affects the positive attitude of the development of tourism in general. In rural tourism are valued agricultural activities, natural resources, cultural heritage, traditional architecture, traditions and customs. This paper presents theoretical aspects of rural tourism as well as the basic characteristics of tourism demand and valuable foundations of rural tourism in Republic of Serbia.

Key words: Tourism, rural area, development,, destination, sharing, rural life

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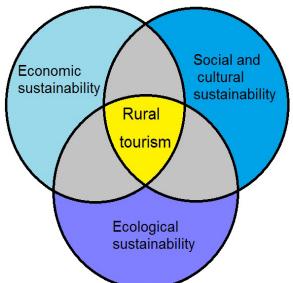
#### 1.INTRODUCTION

Under the term "rural area" means the area whose basic physical and geographical characteristics are primarily use of the land for farming and forestry. Rural areas in Serbia are very rich and diverse and represented by landscape diversity and cultural heritage. The village is an anthropogenic tourist base, usually located within the emphasized recreational and serene environment. Recreational potentials are primarily expressed by the very atmosphere, because the village is characterized by preserved nature, the absence of pollution and large green areas [1]. Therefore, represents a huge potential of human skill and energy because they provide most of the food, timber, etc. Nevertheless rural areas of Serbia represent a space for rest and recreation, both for domestic and foreign tourists, and in other words very suitable for development, and evaluation of rural tourism. Rural tourism development is complex, and long-term job. Understanding the needs of the local population, as well as their aspirations and habits, customs and financial power, contributes the best for development of rural tourism, because rural areas differ significantly in character and that of suburban rural areas to pastures in the high mountains. Development activities, with quality and professional program for the development of rural tourism can contribute to the development of rural areas, as well as adequate development of all types of supporting infrastructure, and also can contribute to the successful implementation of the national policy on environmental protection and nature conservation. Therefore, the development of rural tourism should deal with a group of expert teams who can see the wider picture and understand rural development as a whole.

#### 2.THEORETICAL CHARACTERISTICS OF RURAL TOURISM

Basic resources for the development of rural tourism are, of course, rural areas. They represent a very large and still little exploited tourist potential. Meeting the needs of city residents for peace and the need for recreation outdoors, can best be realized in rural areas.

The term rural tourism, is used for cases when the rural culture is a key component of the offered tourism product. Specific attempt to provide to the visitor a personal contact, feeling the physical environment in rural areas and, to the extent possible, that he be given the opportunity to participate in activities, traditions and lifestyle of the local population [2]. This allows the visitor a unique way to experience the web of life of nature, culture and people. Rural tourism is based on the principles of sustainability and involves a range of activities and services that people in rural areas are organized precisely on the basis of the elements that characterize rural areas. This implies that the visitor enjoys the authentic, original experiences and return to the roots and essence of rural life [3]. The offer in rural tourism includes not only the visible features of nature, architecture, folk literature, gastronomy, but to experience the unique multi-dimensional web of life achieved through personal contact with the local population, which makes rural tourism unique by giving it a unique and invisible features such as traditional hospitality, customs, culture, relationships with nature, culture, communication, beliefs and legends of local people of different nationalities and religions, the populations at particular area has developed a specific way of life. The very vision of sustainable rural tourism, is a balance of economic sustainability, social and cultural sustainability and environmental sustainability, as shown in Figure No.1.



**Figure 1**. The vision of sustainable rural tourism Source: Master plan održivog razvoja ruralnog turizma u Srbiji, (2011), str. 8.

Rural tourism is a combination of many different aspects of the experience, sharing and presenting rural life. These rural experience can be defined in terms of rural activities and experiences found. The combination of these forms is the essence of rural tourism.

Rural activities have different levels of complexity, which can be summarized in two main aspects:

- level of engagement of visitors activities in the rural environment;
- level of entertainment value and educational level.

The level of engagement in the activities of visitors in a rural setting varies from very active to very passive. World trends show that fun and educational activities are becoming increasingly important in the design of new destinations and this is a key element for the differentiation of destinations.

#### 2.1 Rural touristic resort

One of the rural settlements in attractive rural areas, which have a certain level of infrastructural facilities and transport accessibility and preserved architectural heritage, can be involved in the tourist industry. One of the criteria is that towns and rural areas have natural and anthropogenic tourist resources for attractive presentation and use for tourism promotion. Other criteria include human resources. In fact, rural areas, especially in Central Serbia are in process of depopulation, in certain rural settlements are losing permanent residents, or the average age is over 60 years. In other words, is crucial in some instances, the availability of skilled workforce of residents in the village. Only then can be developed tourist functions of villages and then we can talk about rural resorts in which visitors comes to leisure, to temporarily return to nature and traditional way of life. Most often in these villages are coming residents of large cities for which village is touristic cultural framework in which it takes a life different from their everyday life in the city. In order to be a tourist village, it must meet the following criteria:

- 1. Agricultural production is at the village primary production activity. Indigenous people engaged in everyday activities, while tourists witness and participant of a number of acts done by the local population;
- 2. Rural households, houses and farm must comply with the ambient unit of villages and landscapes;
- 3. Introducing the traditional way of life of the rural traditions (villages, meetings, feasts), culture, food, dress, as well as with traditional crafts (weaving, furs, traditional footwear, pottery, quilts crafts);
- 4. Tourist live with the host under the same roof and over him is included in the life of the family and the entire village, which stay in the country gets full meaning;
- 5. The local population is not isolated from the tourists, or becomes nameless provider of travel services to certain working hours. Still dealing with the affairs of the estate as usual, carries out activities related to tourism, and treat tourists as the locals.

The division of rural touristic village according to tourist facilities, according certain authors, can be:

- 1. Self rural touristic resort with a complete tourist and cultural offer (accommodation, meals, other tourist and cultural facilities);
- 2. Rural touristic resort with partial tourist and cultural offerings included in other segmented forms of tourism demand (spa, winter and summer tourist centers, transit corridors, cultural and natural heritage, etc.).;



- 3. Rural touristic complex with the manifestation of tourist-cultural offer (fairs, trade fairs, parades, festivals, competitions, colonies);
- 4. Excursion rural touristic settlements (villages near the emitting city centers);
- 5. Other villages (villages engaged in providing services: local food store or food for the winter, keeping pets, picking herbs, teas processing, giving courses - weaving, knitting, crocheting, storage, etc.) [4, pp 13].

Since natural resources are only one part of the natural conditions, it is the gift of nature, which is used in the reproduction process to create new useful values [5]. While terms such as "natural capital" has long been established in the literature, specific term "rural capital" has entered in academic discourse only in the last few years. As such there is no definition about which everyone agrees. This term is first used in the UK by the Agency for the village, as a conceptual way of connecting their two programs. The first of these programs included the establishment, "Initiative for Land Management", which aimed to highlight the problems faced by manufacturing, promoting the sustainable management of agricultural land. Rural capital is "the basis of rural development, rural villages and market towns". On the one hand, this definition can be considered to some degree simplified, but it is worth describing in what rural capital as something that encompasses the various components of the village. This can be primarily natural components, such as wildlife, primarily constructed, such as rural settlements, or primarily social, as well as local cultural traditions. Furthermore, the main components of rural capital may be tangible or receptive. An integral elements of rural capital are:

- Landscape;
- Flora and Fauna;
- Biodiversity;
- Geology of soil;
- Air and air quality;
- Hedge and fencing fields;
- Agricultural buildings;
- The rural village of isolated settlements to market cities;
- The historical features, such as historic buildings, remnants of the industry;
- Trails, paths, streets and roads;
- Streams, rivers, ponds and lakes;
- Water and quality of water;
- Woodlands, forests and plantations;
- Distinctive local cultures, languages, costumes, food, crafts, festivals, traditions, way of life [6, pp 40].

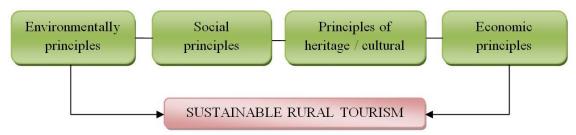
On the different elements of rural capital can be thought of as key components of the value base of rural tourism. This means that the quality of the experience of rural tourism depends on the quality of rural capital that supports it. This is not to suggest that the rural capital of the only determinant of the quality of the experience of rural tourism. Another determining factor includes the availability of services, a wealth of information, a high standard of service and care of the visitor. It is also important to recognize the importance of rural capital goes further than its role in rural tourism. Here we identify four broad dimensions of the importance of rural capital:



- 1. Providing advantages in the market for agricultural producers, food processors and distributors:
- 2. Presentation of rural capital as a value in terms of cultural heritage related busines:
- 3. Provision of primary services, for example, wind power, flood control and recreational resources, etc.;
- 4. The factor of attractiveness for inward investment [6].

### 2.2.Basic principles of rural tourism

The concept of sustainable tourism includes integration with nature and cultural environment, where activities undertaken have an acceptable impact on natural resources. In this framework, tourism activities should be environmentally, economically, socially, as well as the welfare and cultural sustainable in the long term.



**Figure 2**. Basic priciples of rural tourism

Source: Popesku J. (2011), Održivi razvoj ruralnog turizma TAIEX, Privredna komora Beograda, str.4.

Basic principles of rural tourism are:

- Ecological principles of protection of the environment:
- Preserving nature and biodiversity conservation as a prerequisite for sustainable tourism. In this case, tourism activities should ensure integtitet ecosystem and habitat conservation.
- Tourism activities such as hiking and construction of infrastructure in rural areas that are likely to have a significant impact on nature and biodiversity should be subject to prior assessment of environmental impacts.
- In protected and highly sensitive areas and other areas that require strict protection, tourism activities should be limited to a tolerable minimum.
- In coastal areas special attention should be paid to the preservation of endangered areas, such as small islands, coastal wetlands, beaches, etc.
- Tourism in mountain areas should be managed with the aim of preserving biodiversity.
- Sustainable tourism should be based on ecological means of transportation, and special attention should be given to environmentally sensitive areas.
- Sports activities, such as hunting and fishing, especially in environmentally sensitive areas should be managed in a way that meets the requirements of nature in accordance with existing regulations on conservation of the species.3



- **Social Principles**
- Ensure that tourism development protects and not destroys cultural diversity and local community - Active discourage forms of tourism that cause and contribute to social problems.
- Cultural Principles (heritage)
- Develop tourism, which is typical of the (indigenous) avoid duplication
- Promote unique characteristics of culture and heritage areas [7, pp 4].
- Economic Principles
- Restrain the exodus from rural areas and create new employment;
- Conversion of productive activities towards more environment friendly strategies and the development of local and typical production;
- The development of new careers, new management approaches and new methods of production;
- Exploit of ecological resources through synergy and less conflicting relationship between agriculture and the environment;
- The economic development of local communities and the general improvement of quality of life [8].

#### 3.OPPORTUNITIES FOR DEVELOPMENT OF RURAL TOURISM IN SERBIA

Serbia has a good geographical, but also very sensitive geo-strategic position. The importance of traffic and geographical position is reflected in the fact that it passes through the territory of Serbia ancient corridor since ancient times Via Militaris which enable the shortest land route between Europe and Asia, or the Middle East. Serbia's geostrategic position is determined by the fact that Serbia is at the touch of large European region, ie at the crossroads to Central Europe - the Danube region, the Mediterranean - the Adriatic Sea and the Alps [9, pp 11].

Europe in the last few decades is the world's leading provider of rural tourism, and trends indicate that it will remain in the next 5-10 years. Serbia has a great potential of this product, because of the preserved nature and traditional and indigenous values [10, pp 90]. Focusing on other forms of tourism, overall environment in society and favoring other forms of tourism as opposed to rural tourism have led to rural tourism in Serbia has not been adequately developed and experienced their satisfaction [11].

Wealth, maintained and attractive natural resources, a large number of traditional agricultural households, as well as the growing interest of the international tourism market for rural tourism experiences are pretty solid foundation for the development of rural tourism in Serbia, especially in its south-western and south-eastern part.

In the Spatial Development Strategy of the Republic of Serbia (2009) mentioned areas with the conditions for the development of rural tourism, such as mountainous border line and other peripheral areas with poor natural resources for agriculture and other activities, and also the favorable geographic position and potential for tourism development and integration of complementary activities in the tourism offer. Together with the development of rural tourism, foresees the population and socio-economic policy, modernization and construction of appropriate infrastructure. In accordance with the basic long-term goals and criteria development and organization of the tourist offer, the development of rural tourism, as well as complementary to the overall tourist offer of Serbia, specifically binds to the following tourist regions: KopaonikGolija, Tara, Zlatibor,

Zlatar, Valjevo mountains and upper Tisa. Bearing in mind the above-mentioned position the tourist activity in the Spatial Development Strategy of the Republic of Serbia (2009-2020), can be expected to boost interest in Serbia for more intensive, more organized and better development of this form of tourism.

Rural tourism is an important product of the future of tourism in Serbia, that Serbia will demonstrate its orientation towards nature and sustainable tourism development. Rural tourism in Serbia through its highly dispersed regions and provides various forms of experience, both in visual terms (Architecture), and sentient (sights, smells). Marketing to create special packages with experiences farms, rural resort as well as a special kind of camping in rural areas [12, pp 25].

Lately in Serbia has been developing and rural tourism product which in different parts received various forms of offers. Thus, in the western part of Serbia, this product is formed on the basis of rural revitalization of old Serbian houses, while in Vojvodina increasingly recognized offer farms, as a typical Vojvodina rural experiences related activities [12, pp 14]. Key products of rural tourism in Serbia:

- Agritourism and rural experience in a rural area in different locations, especially in western and eastern Serbia;
- Eco-rural tourism:
- Ethno-rural tourism;
- The combined forms of rural tourism and special interests eg. cycling tours through rural areas, visit the local village events, etc. [12, pp 136].

Given the current organizational structure of rural tourism, as a distinguished independent Serbian tourism product, adequate competitive strategy involves several interrelated steps:

- Creating a clear vision for the development of the product associated with the modern world trends of development of this product;
- Definition of key tourist areas of rural tourism;
- The gradual improvement of the quality of the existing offer, as well as the creation of a system of classification and categorization;
- Choice of three to four 'green field' 'an innovative project to develop the same model established and, possibly, the brand Serbian Rural Tourism;
- The market commercialization of the Internet and the system of direct sales or through specialized travel agencies.

Serbia has a chance to develop this product in new locations, to choose a strategy of differentiation, especially in mountainous areas and ecologically impeccable parts of Serbia related to the activities. Local tourism organizations should play a key role in the initial development of culture and affirmation of this product, as well as the initial training of the local rural population as a carrier. Due to the global expansion of rural tourism as a product of the future, as well as interregional and international cooperation is especially important here. Finally, the strong momentum in the development of the culture of rural tourism is not possible without a comprehensive national project and, for this purpose, the creation of the National Association for Rural Tourism.

In Belgrade, in 20.07.2010. year is founded the National Association for Rural Tourism, which will deal with the improvement, development and promotion of this type of tourism. National Association is a non-governmental organization, and its members can be all natural and legal persons who respect the principles of the association and pay their

dues. The aim of the association is to increase revenue Serbian natural and rural tourism. National Association will work to protect the cultural and historical heritage of Serbia, preparation of projects for the conservation and promotion of nature protection [13].

According to the Spatial Development Strategy of the Republic of Serbia (2009-2020), protection, development and sustainable use of natural and cultural heritage and natural resources, will form the basis for the identity of Serbia and its regional whole, but also the basis for future economic and tourism development. In accordance with the priorities of the spatial development of Serbia, it will be necessary to insist on the further development of networks of protected natural areas and cultural landscapes with special emphasis on environmentally and culturally sensitive areas. Natural and cultural heritage must be protected, edited and used in accordance with European standards with the special task to increase of protected natural areas and classification of cultural heritage, as well as the implementation of the Florentine Landscape Convention, European and international conventions on the protection of cultural heritage, conventions and declarations relating to biodiversity, natural subsystems and other documents ratified by the Republic of Serbia [9, pp 44].

Based on the completed evaluation of all the key success factors, currently achieved level of competitiveness of Serbia in the sphere of rural tourism is not very good, apart from the fact that for its development are all natural, cultural and social preconditions (natural resources, significant agricultural land, a significant number of active agricultural population traditional approach to agriculture, good potential for agrotourism, non-contamination of soil chemical substances and the ability to produce healthy food,, "good potential for the development of complementary activities such as horse riding, shooting a bow and arrow, traditional local gastronomic specialties, etc.).

Bearing in mind the fact that this tourism product in large measure is intended to domestic population, and only with lesser extent to foreign guests, and is directly related to the degree of socio-economic development of the country and various forms of subsidies and other forms of direct stimulation of the development of rural areas. It is a product that should be developed in the longer term. Development, and then commercialize products "Rural tourism", not only will directly contribute to a more balanced economic development of the country and reduce inequalities in the distribution of social wealth between urban and rural areas, but will be an efficient way to protect the long term, and thus preserve valuable natural resources [12, pp 128].

SWOT analysis of rural tourism is indicated by the strong and weak points of rural tourism in Serbia, as well as the opportunities and threats in the environment. In order to as much as possible take advantage of opportunities, ie. to rural tourism Serbia become recognizable in the international market, it is necessary to continuously work on providing high-quality leads. This means fulfilling a large number of elements, which are listed in the SWOT analysis. Although a number of weaknesses and threats, with the joint efforts of all stakeholders involved directly or indirectly in the creation and provision of services in rural tourism, they can be overcome in time. Swot analysis of rural tourism in Serbia is presented in Table 1.



Table 1. Swot analysis of rural tourism in Serbia

STRENGHTS	WEAKNESSES
<ul> <li>Enormous number outstanding natural landscapes</li> <li>Enormous potential for rural tourism</li> <li>Preserved local traditions and rural Landscapes</li> <li>Unpolluted soil and water</li> <li>The traditional Serbian people hospitality</li> </ul>	<ul> <li>Inadequate waste management</li> <li>Uncontrolled use of fertilizers and Pesticides</li> <li>Lack of entrepreneurship in rural Areas</li> <li>Weak economic diversification Activities</li> <li>Inadequate infrastructure in rural Areas</li> <li>The low level of education and training</li> <li>High unemployment rate</li> <li>Low per capita income in rural areas, lack of social capital, lack of opportunities for employment in rural areas, high</li> <li>Rural poverty index</li> <li>Underdeveloped public awareness of concept and importance of rural development</li> </ul>
OPPORTUNITIES	THREATS
<ul> <li>Options for better protection of the natural evironment</li> <li>Conservation of agro-biodiversity and good soil and water quality</li> <li>Incentives for farmers to protect the environment and sustainable use of natural resources</li> <li>The growing international market Tourism, Rural / eco-tourism, etc.</li> <li>The development of small and medium-sized enterprises and entrepreneurship in rural areas</li> <li>Better diversification of rural areas</li> </ul>	<ul> <li>Rapid changes in consumer demands and trends in consumption</li> <li>Increasing competition in the Internat ional markets</li> <li>Shortage of work force in some specialized activities in rural economy (eg, tourism)</li> <li>The emergence of strong international brands in the increasingly integrated European market can be a threat to Serbian service activities</li> <li>More delays in the development of Infrastructure</li> <li>Lack of funding for support the implementation of agrienvironmental measures</li> </ul>

# 4. BASIC CHARACTERISTICS OF TOURIST DEMAND OF RURAL TOURISM

As significant characteristics of modern tourist demand that are essential for the development of tourism in rural areas of Serbia, are the following:

- Increasing demands for environmental quality and health-recreational function of rural areas;
- Returning human to nature and its original values;
- Tourist market recorded a growth of green consumer movement whose behavior is determined by ecological motives and values;
- Increasing the demand for destinations, non-urban rural and protected natural areas and villages with important cultural and historical values;
- Refreshment expressed through the contrast between urban village, lowland mountains;
- Demand for rural and agro-tourism, which requires accommodation in various types of facilities (rural houses, small hotels, motels, etc.);



- Requests for clean and free space suitable for moving, self-expression and recreation:
- The growing interest for fun and leisure, religious and cultural features, ecological values (healthy environment and food);
- It is increasingly represented individual and family movement, which correspond to the manner of acceptance and accommodation in rural households;
- Greater domestic demand orientation towards rural areas, because of the economic situation and the low standard of living of the majority of the population.

It is difficult to determine the precise number of tourists who aspire to rural areas, although some estimates indicate that about 75% of world tourism demand is directed towards the natural values of the areas (in 2000, the number of participants in international tourist flows amounted to about 698 million, the realized foreign income from international tourism in the amount of 475.8 billion USD) [14. pp 189]. However, if we take into account the dominant requirements of demand, expressed selectivity and specificity motif, it can be concluded that a substantial part of its directed towards rural areas. This applies to those destinations in which this segment of the overall tourism product is at a higher level of development and organization. According to recent research, rural tourism is growing three times faster than classic tourism and it is expected that its share of the tourism market in Europe in the next 20 years will be greater than 20%.

Research in the United Kingdom market indicates that 25% of European tourists tends to stay in these areas. According to research in the United Kingdom an important influence on this type of tourism demand have, in addition to the general factors (leisure time, the general attitude towards nature as a tourist attraction), and social status (education, income volume, etc.), Ownership of the car, location of residence, age, gender. It is evident, based on the results of research that are more likely to participate in tourist movements towards the village of younger people, educated, in management positions, the car owners who live in areas surrounded by nature. In the mid nineties, studying shorter journeys European population has led to the following results: 19% of tourists used the circular tours, 10% traveled to the mountains when it was not ski season, 9% of tourists traveled for rest and recreation in rural areas [15, pp 54]. It indicates exceptional directivity of the European population to these areas.

However, given that neither the World Tourism Organization (WTO) or the Organization for Economic Cooperation and Development (OECD) have taken appropriate measures, there are several limitations to provide precise and logical data on rural tourism and recreation:

- The differences in the definition and identification of data among different nations of one state can only counted farm and nature in this type of tourism, while others may consider that many economic activities outside urban areas is also part of the rural tourism;
- Many rural tourists and recreationists are Excursionist (one visit) and do not belong to those who use the services of nights, and whose volume is in this case could at least to some extent measured;
- United dividity and fragmentation of rural tourism, with tens of thousands of entrepreneurs and public initiatives active throughout Europe, but only some of them were identified by local and regional bodies such as tourism boards [15, pp 54].



#### 5. CONCLUSION

Rural tourism is a complex type of tourism, made up of different types of tourism that occur in rural areas. Rural areas represent the opposite of urban city area. It is an area which originally served as living and working space of farmers. It incurred a traditional village, rural units, traditional rural architecture and interior design items. Therefore, rural tourism can be an important instrument of economic development of Serbia. Mountain areas are very attractive to tourists, especially because of the advantages offered by combining the rural environment, history, ethnic, and geographic characteristics. Rural landscape, natural environment, traditional and cultural values are important preconditions for the creation of a competitive tourist attractions. Users of rural tourism are mostly highly educated people who prefer less known destinations and vacation in the off season, and are motivated by learning about the local culture, learn about local lifestyle and care for the environment.

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