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## FROM THE „OLD“ TO „NEW“ ECONOMIC IMPERIALISM

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**Abstract:** *Economic imperialism implies the application of economic methodology to the analytical terrain of other social sciences. The „old“ economic imperialism represents extreme example of endeavour to procure the whole human behaviour under the economic approach. The “new“ economic imperialism also means widening of economic principles in order to analyse other social phenomena, but it is performed in a way that is more acceptable to other social sciences. Namely, non-economic behaviour is not treated simply like market behaviour, but rather perceived as a response to market imperfections, especially of information nature. Based on the analysis of the conditions of its appearance as well as basic characteristics of economic imperialism, the main goal of this paper is to point out the analytic potential and also key shortcomings of this approach.*

**Keywords:** *economic imperialism, neoclassical economics, economic approach, information, choice*

### Introduction

Economic imperialism represents a phenomenon that is relatively new. As an idea it appeared with the consolidation of neoclassical mainstream during 1930s, but it gained significance only after the 1950s as a consequence of desocialization

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and deistorization of economic science. The term „economic imperialism“ was first coined by Souter in 1933, as a reaction to the Robbins book and his definition of the subject of economic science. However, only after several decades, economic imperialism became more or less accepted by the majority of economists. The main reason was that analytical apparatus of economics had to be brought to perfection and accepted inside the discipline first. To gain the status of exact science, economics had to obtain the universal character of its principles. By contrast, individuals would become divided personalities – behaving rationally in the market, but not in other areas of life. If individuals are rational creatures, why we than don't apply rational choice to all aspects of economic and social life and move the borders between economics and other social science? There is an open set of concepts (such as opportunity costs, utility, competition, equilibrium, marginal costs etc.), developed from the common set of assumptions about individual behaviour, that could be used for the explanation of social phenomena. From that standpoint, marriage is equally suitable for economic analysis as auto industry or inflation. On the one hand, there is complete trust in the analytical instrumentarium of neoclassical orthodoxy and its capacities to analyze economic and other social phenomena. On the other hand, there is growing recognition among economists that economy can not be understood and explained only on the basis of economic variables. It resulted not only in use of analytical categories of other social science by economics, but also in their analysis with economic methodology.

### **The Roots of Economic Imperialism**

We could say that the roots of economic imperialism could be traced back to Ricardo and his deductivism, perceived so to imply existence of the universal economic laws. Such deductivism is forcibly criticized in historical school, where emphasis had been put on the necessity of equilibrium between induction and deduction. Marginalism brought back deduction, but it was deduction of the particular type, linked to the principles of economic rationality, like Marshall defined it. After the marginalist revolution, neoclassical economics acquired, to a great extent, deductive, axiomatic and formalist framework. At the same time, general equilibrium model of Valras, which was in the shadow of the dominance of Marshall model of partial equilibrium, experienced revival. Through the aggregation of optimizing individual behaviour, general equilibrium theory of Valras represented the prototype of a economy as a whole, although it was derived from the microeconomic principles. Utility and production functions, supported by the convexity assumption, reduced production and consumption to a simple equation. Obvious tendency of narrowing the professional interest to mathematical i.e. technical component had considerable consequence. First of all, scientific efforts diverted from formulating assumptions to establishment of analytical apparatus based on marginalism and application of that analytical instrumentarium. Second, in time economic analysis started to be applied to areas that traditionally



represented domain of other social science (economic imperialism). Under the influence of marginalist revolution, economic science was perceived as a positive science that has no normative content. To emphasise this, marginalist principles and concepts were perceived as universal. Take the example of preferences or marginal utility, applicable regardless of place, individuals, time or even market.

Marginalist principles became universal, since concepts like production, scarcity or utility have no inductive content, historical or contextual specificity. It opened the space for wider application of economic rationality to non-economic areas. As an argument in favor of this statement Potts (Potts 2000, 17) points out: „There are no interactions, knowledge or structure in neoclassical microeconomic theory because it is assumed that the nature of the economic space is integral. In other words, micro theory does not provide explanation of cognitive...heuristic...organizational...spatial or temporal, market...nor social structure“. It immediately initiated the question of (economic) rationality application outside the domain of market and its implications for the relationship between economics and other social sciences. Kahneman and Tversky (Kahneman, Tversky 1974, 1124) point out that „their aim as social theorists is to explain the decision making process“. Emphasis in economics, according to Cyert and Simon (Cyert, Simon 1983, 106) should be on understanding of the decision making process and not on simplification of assumptions regarding motivation, as well as on development of the model with emphasis on empirical validity.

The analysis of human behaviour extends over many boundaries in social analysis. Robbins definition of economic science as a science that investigates human behaviour as a relation between goals and scarce resource that have alternative use (Robbins 1945 (1932), 16) points to that direction. That goals, according to Hirshleifer (Hirshleifer 1985, 53), could encompass: eternal glory, status, good sleep, reputation, adventure etc, for whose achievement resources are very scarce. Burling took the step further and claimed (Burling 1962, 811) that „there is no particular economic techniques of economic goals“. That is why Hirshleifer (Hirshleifer 1985, 53) claims that there is only one social science. What gives imperialistic power to economic science is that its analytical categories like preferences, possibilities, scarcity, costs etc., have universal application. Even more important is structural arrangement of these concepts in the optimization processes at the level of individual decision making. That is why, according to him, economic science is the universal grammar of social science. Since it was built on the basis of methodological individualism, its concepts are eternal, universal. There is a question why individual, efficiency, choice and even equilibrium could not have wider application, and not only for the analysis of market exchange? In time, economic method began to be applied to the analysis of the size of organization (Coase 1937), decision about supply of labour in family or in the market, discrimination problems (Becker 1976), analysis of state (Buchanan 1984) etc. What is common to all these theories is that they don't take into account changes in preferences. The growth of enterprise is explained by the fact that up to a certain

point it is cheaper to organize transactions inside organization than through the market, and not because owner prefer bureaucratic over market governance. There is growth in the supply of female labour in the market because in the last few decades female wages are constantly rising and not because they love their family less than before. Expenditure structure in the state budget is not changing because preferences of tax payers are changed, but because power relations between different interest groups are changing (Milonakis, Fine 2009).

Marginalist revolution, according to Fine and Milonakis (Fine, Milonakis 2009, 8), considerable contributed to the extraction of social (and also historical) from economic analysis mainly through focusing on (asocial) individual and also through attempts to analyze market/economy separately from society. At the more wider level, it was part of the process of establishing the clear boundaries between different social sciences. Economists focused on rational (economic) individual behavior, represented in the movement of supply and demand in the market, leaving the non-rational behaviour to other sciences. Fine and Milonakis (Fine, Milonakis 2009, 8-9) point out to certain contradictions in changes in economics during the marginalist revolution. On the one side, domain of economics was narrowed to economy, which was reduced to set of market relations. On the other hand, its basic principles like rationality, scarcity, choice, equilibrium etc., became universal in its content and application because there are no borders regarding time, place and activity. This tension between the universality of principles and its limited application was resolved in two ways. The first implies application of economic method to non-economic spheres, while the society is treated in the same way as market (Gary Becker). This approach was popular in the period 1930s-1980s, but was gradually overcome by the approach where non-economic aspects represented response to market failures (George Akerlof). The second approach lead to the development of the more successful form of economic imperialism.

### **The „Old“ Economic Imperialism**

After the marginalist revolution, equilibrium models, developed in neoclassical economics, had two important analytical characteristics. First, they represented standard for the comparison with real market. Second, since technical apparatus of neoclassical economics regarding optimization, utility and production functions, input and output, is ahistorical and asocial, it is not necessarily limited to the domain of market where coordination is achieved through the price mechanism. It paved the way to the wider application of the rationality principle to non-economic sphere and the redefinition of economic sphere so to include non-market relations.

The logic of economic imperialism is following: if economics is the science of choice, and human life is all about choices, why then we don't apply economic method to the analysis of individual decision making in all spheres of

social life? In neoclassical analysis, through the passage of time social relations began to be treated as a market. Identification of social relations with market relations, based on rational choice, is often linked to the name of Gary Becker (Becker 1996). Becker, who is the most prominent representative of this form of economic imperialism, all systematic behaviour perceived as rational and economic. His economic approach to human behaviour includes assumption of maximizing behaviour, market equilibrium and stable preferences. What differentiates economics from other social science, according to him, is not the subject of investigation but rather „approach“ (Becker 1976, 3). He wipes out difference between economic and non-economic because he perceives non-economic behaviour as a consequence of (economic) choice of optimizing actors, Fine and Milonakis point out (Fine, Milonakis 2009). For Becker, relationship between economic and social means application of neoclassical analytical apparatus to social sphere and identification of other social spheres with market, rather than return of social component into economic analysis. With the help of methodological individualism, he managed to explain so different phenomena like smoking, drugs, church attendance, divorce, violence, patriotism and state propaganda with economic approach. For example, crime is simply the result of actors *cost-benefit* calculation of the risky benefits and penalty (Becker 1968). From that standpoint, drug addiction is optimal choice in the sense that individual more values utility in the present time in relation to discounted cost of suffering which will follow in the future. Becker certainly represents extreme example of an endeavour to reduce all human behavior to economic rationality.<sup>1</sup> With the introduction of social aspect into economic analysis, according to Becker, neither exogenous preferences, nor the maximization principle are sacrificed (Fine and Milonakis 2009).

Gary Becker inspired development of economic imperialism by treating noneconomic sphere in the same manner as market exchange. But domain of economic imperialism was significantly widened and became more susceptible in social science in the form developed inside information-theoretic approach, where noneconomic sphere is perceived as a rational response to market imperfections.

### **The „Usefulness“ of Economic Methodology in Explanation of Social Phenomena**

There is certain dose of reserve in the economics mainstrim concerning attempts to reduce all economic and social phenomena to economic rationality. It is most obvious in public choice theory, which is based on the idea that politics could be reduced to three constitutive elements: 1) self interest; 2) exchange, 3)

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<sup>1</sup> Buchanan and Tullock, founder of the public choice theory, were very cautious regarding the application of economic analysis outside the framework of market relations, especially in the sphere of political „markets“.

individualism. Public choice theorists are often perceived as pioneers and trenchant patrons of economic imperialism *par excellence*. Buchanan used following words to present the essence of public choice theory: “We begin with individuals who maximize their utility ... We don’t have to specify arguments that are contained in the individual utility function. In this phase we can accept saints and sinners. We can define individual in relation to his/her preference set, i.e. its utility function. That function defines set of possible *trade-off* between alternatives of potential choice, regardless whether it is choice between apples and oranges on the basket stand or between war and peace for country” (Buchanan 1984, 14). Buchanan points out that although circumstances in which above mentioned choices are performed are different – market *versus* nonmarket – analytical principles are simply widened from one area to another. Nevertheless, Buchanan and early public choice theorists showed certain dose of modesty regarding ambitions and did not believe that rational choice can explain everything (Udehn 1992; Nicolaides 1988). For Buchanan, even in the strictly market process, there are unexplained residuals which could be analysed with the alternative hypothesis regarding human behaviour. Reserves concerning frontiers of the application of economic model of human behavior<sup>2</sup> emanate from the difference between descriptive and prescriptive analysis, where model belongs to first and is usually, if not purely, suitable for the analysis of market. Since ethical elements govern the non-market behaviour, “non-economic models of behaviour” are needed (Buchanan 1972, 18), which transform prescriptive norms into the hypothesis about human behaviour. In other words, traditional prescriptive norms of individual behaviour should be converted into predictive hypothesis about individual behaviour.

Naturally, the whole argument is constructed on a rigid distinction between positive and normative analysis. Once distinction between normative and positive systems is made (preferences and behaviour or precisely choice) it was easy to establish the significance of normative for positive. In that sense, Tullock (Tullock 1972, 324) suggests following organization of social sciences. He believes that social sciences should be divided in two groups: sciences about choice and sciences about preferences. Sciences about choice should deal with expected results from individual interactions, with individuals maximizing their preference functions. They would not be restricted by the traditional concept of economics domain and could engage in the analysis of institutions. On the other hand, there are sciences about preferences, propensities, tastes etc. These sciences would not deal with identification of preferences, analysis of individual preferences, factors shaping individual preferences etc.

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<sup>2</sup> Economic models abstract from the complex human behaviour certain aspect of that behaviour – economic behaviour as a relation between ends and scarce resources for its realization. This process ignores important aspects of human behaviour. Model could be presented with phrases, graphics or mathematical equations.

McKenzie (McKenzie 1979, 145) is convinced in restricted applicability of economic analysis in areas such as crime, marriage and family. Criticizing Becker, McKenzie points out that public choice could be adequately recognized with the economic approach only if we clearly accept its shortcomings. In that context, it should be stressed that Becker remained outside the analytical setting of public choice theory of that time for two reasons. First, Becker rejects idea that there is a difference between ethical and personal preferences because former could be reduced to latter. It is therefore not surprising that McKenzie discards Becker's approach first of all because it is a model of individuals behaving like the machine and practically not performing choice, and behavior is in accordance with the dictate of consumer choice model. Second, it leaning on the "extended" utility function applicable to all individuals, Becker leaves no space for development of a theory of preference development. According to him, preferences are biologically determined and lead to utility function (on the basis of experience in consumption, work etc.) which is optimally chosen, but is also subject of random influences. McKenzie, however, accentuates that apart from the fact that individuals are externally driven (as for Becker and Stigler), they are also internally directed, with the experience as an important factor that enable them to discover what they really want (ibid, 149).

For Sleiter and Tonkiss (Slater, Tonkiss 2001, 61), the rational choice models, especially those that cover all spheres of economic and social, are not amenable to falsification. If all activities are maximizing, than maximization assumption is not amenable to falsification. Hypothesis thus falls into a trap of representing the theory of everything which manages to explain negligible part of what it seeks to explain. Any real or supposed result could be "explained" with the suitable modification in preferences or changes in external conditions.

On the one hand, we could mention the problem of optimization. Namely, Becker analysis does not deal with the choice in the traditional sense. It is not „science of choice“, claims McKenzie (McKenzie 1983, 29), but completely deterministic theory of human behaviour. It begins with the tastes that are given, as well as constraints. Neither of them are subjectively determined. Once preferences and constraints are set, computer could replace actor that makes choice in the model. Nothing in the Becker's model indicates free will, concept that represents important part of neoclassical economics ideological base. Narrowed from all sides, internally and externally, economic activities are subject of mathematical manipulation. Individual is not somebody who solves the problem; all problems are already solved by the previous specifications in the model. Model enables us to determine the nature of the solution to the nonexistent problem, claims McKenzie (McKenzie 1983, 30). On the other hand, the analysis is confronted with the problem of infinite regression, which represents another methodological constraint. The only way through this confusion is to challenge Becker's claim that economic approach is applicable to all aspects of human behaviour. Becker avoids conflict between domain of rational (economic) and non-rational (non-economic) behaviour

through the negation of difference between them. However, the price of it is the danger of falling into tautology because analysis sets its own boundaries by what is taken as exogenous. McKenzie and others are at least able to raise the question where economic ends and non-economic behaviour starts, what is their essence and what are their interactions?

Although McKenzie took Becker and Stigler as starting point in the analysis of the frontiers of economic imperialism, Stigler himself is also sceptical about the universal applicability of economic approach. There is a large set of social phenomena where it is not certain that economic analysis could contribute to their better understanding, points out Stigler. Origin, content and power of nationalism and religious fanaticism are important examples of the operation of factors that we can not explain. It is not clear whether we could contribute at all to the analysis of language, changes of moral codes and its consequences (such as sudden revolt against slavery in England in 18. and the beginning of 19. century). The open question, according to Stigler, is whether analytical apparatus of economic science would be of any help in understanding the so-called macrosociological phenomena (Stigler 1984, 309).

### **Preconditions for the Development of the „New“ Economic Imperialism**

On the basis of the above mentioned, we will consider key changes in economic science that give rise to the development of the so-called „new“ economic imperialism.

Until the end of postwar economic expansion, economics mainstream had been dominated by keynesianism. It offered a solid base for the macroeconomic policy oriented towards full employment, while microeconomics provided excuse for state intervention towards correction of market failures. Keynesian doctrine was seriously shaken with the emergence of stagflation in the 1970s and associated ideological assaults from the neoliberal standpoint. Friedman's variant of monetarism eventually paved the way to the development of rational expectations theory and the claims that in the situations when calculative actors optimally use available information, systematic macroeconomic policy would be inefficient. With the raise of neoliberalism, state expenditures were perceived as excessive and state intervention as inefficient. Instead of perfect competition and general equilibrium as an ideal in relation to which deviation in the form of market failures are excuse for state intervention, efforts to achieve free market and minimal state lead to what Carrier and Miller (Carrier, Miller 1998) named economic „virtualism“, an imperative to reshape the world so to correspond to imagined model – perfectly competitive equilibrium.

With the strengthening of neoliberalism, alternatives inside mainstream economics faced two challenges. On the one hand, it was important to explain why market imperfections are so important. On the other hand, it was obvious that state

intervention does not provide improvement. Following key question were asked: why individuals do not act rationally, why markets are not efficient, why non-market relations exist and why they are preferable to exist above the level that secure protection of property rights, national defence etc? The above mentioned changes contributed to the development and strenghtening of information theoretic approach, where two basic assumptions of valrasian economics were criticized: perfect informations and existence of complete markets. When informations are asymmetric and expensive, and complete markets are absent, market will not lead to Pareto efficient results, resulting in market failures.

Althought motivated by the example of „lemon goods“, information asymmetry analysis has general significance and could be applied, in principle, to any market and circumstances where buyers and sellers have different information before, after or during transaction (Fine, Milonakis 2009, 64). For Akerlof (Akerlof 2002, 412), „information problem in the used car market is potentially existent, in different degree, in all markets“. Every market could be imperfect because it is innefficient or does not provide „clearing“. Shortly, information theoretic approach and reference to market failures enable us to understand how markets (efficiently of inefficently) operates, especially from the standpoint of deviation from perfectly competitive markets. Also, this approach allows us to explain the existence of economic structure. Individual actors have interest to provide alternative with the aim to separate actors with different characteristics, thus contributing to consolidation of these differences. Differentiation on those who work and those who don't work could result from information asymmetry. In efficient wage theory, for example, enterprises are forced to offer higher wages than they wish in order to attract more skilled, motivated workers. With higher wages and productivity, enterprises are willing to employ less workers, contributing to rising employment. Thus, the dividing line between the employed and unemployed is created, which is not based on individual characteristics. Similarly, approach to credit could be structured independently of the characteristics of debtors (inability to obtain credit, even at higher interest rate, because creditors are afraid of attracting insolvent debtors). In this way, information theoretic approach is able to explain emergence of (structural) differences where they didn't exist before. It is also capable to explain how unobservable individual differences could be accentuated. In other words, asymmetric information provide explanation for the homogenization on the basis of not so noticable differences and strenghtens differentiation upon these differences which are easily observable. Thus, small differences in capabilities could be reinforced by insistance on workers formal qualifications, irrespective of their contribution to productivity.

Information-theoretic approach, therefore, pretends to explain different outcomes in socio-economic structure. In that manner, Stiglitz feels free to claim that new approach is established in economis, approach that diverges with the old mainstream and allow us to understand how real markets operate and in the same

time is applicable to the whole range of areas. This approach is able to explain structure or appropriable macroeconomic results, in spite of the fact that it is based on optimizing behaviour of individual actors as a response to asymmetric information.

Partly, information theoretic approach could be perceived as an approach that deals with institutions as a response to market failures and transaction costs. But, new approach doesn't constrain itself to formal institutions, it spreads to informal institutions. Culture, customs, norms, trust and habits, for example, are not treated anymore as something exogenous and non-rational. Instead, such behaviour could be explained as rational or optimal response to market failures. Such approach, however, is not original. Simon's concept of bounded rationality implies that rational calculation requirements imposed on the individuals could be so huge, leading to „satisficing“ behaviour (Simon 1972). Bearing in mind limited capabilities of individuals to collect and process information in the conditions of uncertainty, the rational actor stops finding satisficing and not best possible solution. It certainly does not imply irrationality, but rather reasonable use of cognitive capacities and scarce time that actors have at their disposal. Decision making in such conditions is interpreted as rational approach to the costs of decoding and calculating with available information.

### **The Role of Information Theoretic Approach in the Development of the „New“ Economic Imperialism**

Mathematical proofing of the equilibrium conditions in perfectly competitive markets performed by Arrow and Debreau resulted in what Bates named „crisis emanated from triumph“ (Bates 1995, 28-29). Applying the neoclassical orthodox model, economists of the 20th century managed to show the absurdity of the world which they created and thus gave invaluable contribution to the future development of economic science, claims Stiglitz (Stiglitz 1991, 136). Excessive formalization, combined with the extremely rigorous conditions assumed by the walrasian model, caused redirection of economists attention to those situations where these conditions are not fulfilled. It contributed to the enrichment of market failures theory with market imperfections (based on incomplete and expensive information) and incomplete markets. What is intrinsically innovative in relation to new microeconomics of information asymmetry is ability to investigate social structure, institutions and customs, although on the basis of methodological individualism, inside mainstream economics. Utility maximization is the ultimate goal of economic and noneconomic behaviour, whilst social phenomena are explained by the logic of rational choice.

The appearance of new information theoretic and new institutional economics based on asymmetrical information, transaction costs and other market



imperfections, marked development of the new form of economic imperialism. It is based on what Stiglitz named information theoretic approach to economics or new information economics.

Contrary to the old version of economic imperialism, new form is grounded upon the idea of market imperfections. Information theoretic approach managed to endogenize economic structures, which were previously treated as exogenously given constraints (or were excluded from the analysis, as in classical economics). Of crucial importance for economic imperialism are conclusions concerning non-economic (behaviour and results). Reason is straightforward. In the presence of market imperfections, it is non-rational for individuals to establish new or to adapt to already established non-market mechanisms in order to relativize these imperfections. In the case of „lemon goods“, for example, participants can decide to establish guarantee scheme. This would be elementary institutional form for the solution of asymmetrical information problem that characterizes transactions. Consequently, we could describe institutions as a non-market response to market imperfections.<sup>3</sup>

First step was the recognition that market operates differently when buyers and sellers have imperfect information about goods subject to exchange or about behaviour of other actors. Introduction of assumption about imperfect information in the beginning proved productive for understanding of the individual markets; among others used car market and insurance market. Spreading this assumption to institutions and social relations enabled neoclassical economics to step outside the traditional boundaries. Starting with the assumption that market functions are modified by the existence of imperfect information, traditionally non-economic phenomena could be explained so that individuals interact with each other in order to overcome imperfect information. The establishment of the associations for non-economic purposes or on the basis of non-economic criteria could be indirect way of obtaining information about market transactions. In other words, non-market relations are compensation for incomplete information in the market. Seemingly unoptimal forms of behaviour such as reciprocity, trust, customs and norms are optimal way through which individuals respond to market imperfections. However, it raises an important question – does this mean that historical and social phenomena are simply reduced to means for overcoming the information asymmetry?

In this way, neoclassical economics reintroduced social component into economic analysis (it is another thing to what extent it is really reintroduced) and thus became more attractive to other social science. The above mentioned changes extend the analytical terrain of neoclassical economics by making endogenous what is previously considered exogenous, as well as by putting emphasis on interactions between market and non-market factors. It gave rise to the

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<sup>3</sup> That idea, however, is not new to economic science. Existence of the institution of enterprise Coase interpreted as an efficient response to the presence of transaction costs.

development of the whole range of new disciplines (like new economic history, new institutional economics, new political economy, new economic geography etc.) where information asymmetry and imperfections represent basis for the analysis of different non-economic phenomena. One of the examples of the application of economic method to what previously has been considered as non-economic terrain we find in the endogenous growth theory. Factors like technological changes or politics, previously considered exogenous, now became endogenous. These factors, now explained through methodological individualism, with the acknowledgement of information and market imperfections, are emphasized as one of the key reasons for the difference in growth rates between different countries. This form of economic imperialism provided neoclassical economics opportunity to reintroduce historical component into economic analysis, although in limited form of path dependency and/or choice between different equilibriums.

During transition from the world of market perfections into the world of market imperfections, the new economic imperialism assumes universal applicability of economic approach. However, this approach also broadens the field of its application by accepting the existence of non-market and non-rational behaviour, as well as by interpreting them as a consequences of market imperfections. New approach opens the door for the reintroduction of historical through investigation of the consequences of the operation of imperfect markets in relations to perfectly competitive markets, as well as analysis of institutions, customs, structures that they produce. With the words of Granovetter, "...new economic imperialism endeavour to raise the huge superstructure on the narrow and fragile base" (Granovetter 1992, 4). Much firmer foundation, according to him, could be built on the basis of three classical sociological assumptions: 1) realization of economic goals is followed by the realization of non-economic goals like sociability, confirmation, status and power; 2) economic action (as well as any other) is socially conditioned and can not be explained exclusively by individual motives; it is embedded in the network of various relations and not conducted by the atomized actors; 3) economic institutions (like other institutions) does not appear automatically, as inevitable consequence of existing conditions, they are „socially constructed“ (ibid, 4).

### **Concluding Remarks**

For classical economists, political economy was science about economy and economy was treated as a part of the broader social milieu. Through the passage of time, especially after the marginalist revolution at the end of the 19th century, domain of economic science was narrowed to analysis of the problem of scarce resources allocation and price determination, with the market relations investigated independently from the broader social and historical context. Economics lost social and especially historical component, in the sense that it

applies universal categories, regardless of time, place or context (such is the nature of the production function and utility function concepts). Initially, domain of economic approach was reduced to market, while rationality, perceived as utility maximization or profit, was narrowed to the price system. Preferences, technology and resources, guaranteed and clearly defined property rights were taken as given. The analysis of these exogenous factors represented domain of other social sciences. However, the situation started to change very quickly. Economic science considerably broadened its analytical domain, thus securing the ground for the explanation how social structure, institutions and customs could be developed on the basis of individual optimization, i.e. to explain them by the logic of rational choice. Analytical „squaring the circle“, by deducing the social from the individual and not *vice versa* represented crucial moment that provided economic science with the ground to address non-economic facts and to move the frontiers between economics and other social sciences. From the perspective of other social sciences, economics is perceived as science founded on methodological individualism, with society as an aggregation of behaviour of quasi-autonomous individuals. Moreover, economic science went too far with the special version of methodological individualism, one in which preferences are determined exogenously i.e. are given and not explained, nor situated in historical and social context. Motivation of economic actors is narrowed to utility maximization and individual behaviour is explained through maximization of goal function, with exogenously given preferences.

For old version of economic imperialism, personified in the work of Gary Becker, we could say that its influence was stronger in those social sciences where rational choice theory was rooted or, like in the case of the human capital theory, where its concepts could be accepted, accommodated and applied, regardless of its roots in mainstream economics and the fact that they contradict established conceptual framework in these sciences. We should, however, mention that even eager followers of economic imperialism, like public choice theorist, were reserved about the frontiers of the rationality principle application outside the domain of market. Hirshleifer (Hirshleifer 1985), one of the most energetic supporters of economic imperialism of the Becker type, realized that determination of the behaviour as rational, i.e. putting aside as non-rational behaviour that could not be explained as rational, is almost the same as having no explanation at all.

Becker is the extreme example of the endeavour to explain the whole human behaviour by the economic approach. Obscurities regarding relation between individual and social undermined the acceptability of the Becker's version of economic imperialism. Although new economic imperialism also implies broadening of economic principles to the analytical terrain of other social science, it is done in the way that is more acceptable to these sciences. Namely, non-economic behaviour is not treated simply as market behaviour, but in the context of institutions, customs, habits and history. Social entities arise as a response to market imperfections, especially of information nature. It allows economic science

to analyse social component, not as a logical extension of efficient market, but as a response to market imperfections. Economic and social structures, institutions, customs, habits, culture and other forms of non-rational behaviour are thus explained as a rational, collective and path dependent response to market imperfections. It should be stressed, however, that apart from the questioning of the efficient information and complete market assumptions, in all other aspects information theoretic approach remained firmly linked to the neoclassical paradigm. All important features of neoclassical world, including methodological individualism, instrumental rationality, equilibrium prices, marginalism and stable preferences, remained intact.

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### **OD „STAROG“ DO „NOVOG“ EKONOMSKO-TEORIJSKOG IMPERIJALIZMA**

**Rezime:** Ekonomsko-teorijski imperijalizam podrazumeva primenu ekonomske metodologije na analitički teren ostalih društvenih nauka. „Stari“ ekonomsko-teorijski imperijalizam predstavlja ekstremno primer nastojanja da se ukupno ljudsko ponašanje podvede pod ekonomski pristup. „Novi“ ekonomsko-teorijski imperijalizam takođe podrazumeva širenje ekonomskih principa na analizu ostalih društvenih fenomena, ali se to čini na način koji je ovim naukama prihvatljiviji. Naime, neekonomsko ponašanje ne tretira se jednostavno kao tržišno ponašanje, već kao odgovor na tržišne nesavršenosti, posebno informacione prirode. Osnovni cilj ovog rada je da na osnovu analize uslova nastanka i karakteristika ekonomsko-teorijskog imperijalizma ukaže na analitički potencijal, kao i ključne nedostatke ovog pristupa.

**Ključne reči:** ekonomsko-teorijski imperijalizam, neoklasična ekonomija, ekonomski pristup, informacije, izbor



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## MONETARY POLICY AND ECONOMIC RECESSIONS – GOALS, INSTRUMENTS AND EFFECTS

**Aleksandra Praščević, PhD\***

**Abstract:** *This paper is dedicated to discussing important issues of monetary policy in a situation imposed by the requirement to overcome the economic recession. In this context, the paper deals with monetary policy conducted during the Great Depression in 1930s, and monetary policy mistakes that led to the beginning and later to extending and deepening of the economic crisis. The Great Depression contributed to the success and dominance of Keynesian theory and monetary sphere related to the rejection of the quantity theory and accepting the theory of liquidity preference. The latest global economic crisis in 2008 reaffirmed the dual objectives of monetary policy - price stability and full employment. At the same time, there was a reemergence of discretion in monetary policy based on interest rates, although the very discretion monetary policy measures from the early 2000, aimed at overcoming the short and mild recession in 2001 in the US, was highlighted as a possible source of the latest crisis. Monetary expansion, although not sufficiently effective method for overcoming the recession, just as Keynesian theory argued, was necessary in a situation where the financial system should be saved from collapsing, to provide liquidity and contribute to the increase in aggregate demand. Of course, this was possible in a situation where the economies were faced with the threat of commencement of deflationary spiral. However, long term monetary expansion, accompanied by fiscal expansion and a weak recovery raises the question of the final effects of monetary policy, which may in future be marked by a rising inflation.*

**Keywords:** *economic recession, monetary policy goals, keynesianism, Taylor's rule*

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## Introduction – The Turning Point of the 20<sup>th</sup> Century Monetary Economics

Difficulties in achieving a consensus among macroeconomists on how the economic system functions, and consequently, on the role of the state and its economic policy, the instruments to be used, as well as the aims to be established and implemented, make macroeconomics the most complex and most dynamic field of economics. In the ongoing debate between macroeconomists, a significant place belongs to the questions related to monetary economics and monetary policy. The twentieth century, with all the economic and social changes it brought, was particularly revolutionary for monetary economics. During this period, the gold standard was abandoned, financial markets, instruments and derivatives developed, and a monetary union and common currency was formed, which imposed a new role and demands on central banks and monetary policy makers, as well as on macroeconomists and macroeconomic theory. Furthermore, the twentieth century was marked by rapid economic development, but also by technological and social progress, the most dynamic in history. However, the twentieth century was also characterized by the most dramatic economic failures, such as that during the Great Depression of 1929 - 1933, or economic devastation during the two world wars. All this resulted in significant and almost constant changes in the role of the state in the functioning of economy, and thus in monetary policy where the state is the one with the decision making monopoly.

Nevertheless, monetary economics and monetary policy in the twentieth century were mostly affected by the Great Economic Crisis of 1929, as well as by frequent inflations or even hyperinflations in some countries, so that the twentieth century is reasonably believed to be the century of inflation. The first event, the Great Economic Crisis of 1929, marked at least a temporary end of the *laissez faire* capitalism, and for the economic policy makers it represented a new era of more significant government interference in the functioning of economy, which, of course, implied a change in fiscal and in monetary policy. The new fiscal policy placed new demands on monetary policy, which were primarily related to the objectives of monetary policy, which no longer concerned only nominal values, but also realistic ones, such as employment and production. On the other hand, inflation as a permanently threatening problem imposed restrictions on monetary policy. Therefore, during the twentieth century, the focus of monetary macroeconomists lay in the issues of (non)neutrality of money, with all the consequences and conclusions concerning the objectives of monetary policy and the instruments to achieve them. Of course, the development of macroeconomics had its effect, but it was also the starting point in the development of monetary economics. With this respect, the turning points were the following:

- the emergence of macroeconomics as a separate economic discipline related to Keynesian Economics in the 1930s, which ended a centuries-old domination of the quantity theory of money in monetary economics,



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- the monetary counterrevolution from the 1970s, which was a direct consequence of the emergence of inflationary trends in developed economies, which in monetary economics once again promoted price stability as the sole objective of monetary policy,
- development of New Classical macroeconomics models based on rational expectations and perfectly functioning market mechanism, from which came the so-called "inflation games" models, as well as models that were focused on questions of credibility and reputation, but also the independence and transparency of monetary policy and its makers,
- development of New Keynesian models that were directly influenced by the competitive New Classical school and accepted rational expectations, but in the system of market imperfections and rigidities, which had its consequences in achieving the objectives of monetary policy, and, more importantly, this had an impact on the choice of monetary policy instruments and ways for controlling it.

### **The Role of Monetary Policy in the Great Depression of 1929**

In addition to being an unprecedented economic crisis, in terms of its severity and the area it affected, for economy as a theory and for economic policy, The Great Depression of 1929 was perhaps the biggest turning point in the twentieth century. Until present time, for most macroeconomists and other intellectuals, it has remained a challenge which the current governor of the U.S. Federal Reserve calls the "the Holy Grail of macroeconomics", (Bernanke 2004, 4) marking the beginning of modern macroeconomics as a special discipline of economy, with the end of centuries of liberal economic theory domination in which the focus was on a rational individual who, guided by an invisible hand of the market, makes optimal choices, both at micro and macro level. In this system, money was neutral, with the validity of the quantity theory of money and Say's law of markets.

In economic theory, the idea of a perfectly functioning market mechanism and rational behavior of economic agents - consumers and producers, as well as the positive results at the macro level obtained only if the state does not interfere with the functioning of the economy, culminated in the development of New Classics, after the Marginal Revolution of the 1970s. This complete turn away from the issue of distribution and its importance for economic development, as well as the development of the new method – the marginal one, which is basically microeconomic, led economic science, at least in the dominant part, to a form of dead end when the Great Depression occurred.

Along with the economic doctrine, economic policy was in a similar situation too, relying on well-known postulates of liberal economists - that the system left on its own recovers its balance even if there are certain, temporary

deviations from it, which, according to the concept, the Great Depression that began in 1929 actually was. The missing macroeconomic aspects of economic theory that had developed until 1930s had their consequences in the fact that they created inadequate economic policies. It is this lack of a clear understanding that the "macro" is not simply aggregated "micro", and that rational decisions taken at the micro level, can have serious consequences at the macro level, and that the role of money is much more important than that which arises from its function as means of exchange, that was brought to light by the Great Economic Crisis of the 1929 thus providing a good context for the development and triumph of the Keynesian theory, and later of Keynesian economics.

Keynes' General Theory of Employment, Interest and Money developed in 1936 was, for monetary economics, and therefore monetary policy as well, a revolutionary work that would make a shift in the way of thinking about monetary policy objectives and instruments for achieving them. Almost every element of Keynes' theory had its impact on monetary economics, but certainly the decisive influence came from the following elements:

- the rejection of the quantity theory of money and the development of liquidity preference theory,
- the development of the concept of effective demand based on psychological preferences, including the liquidity preference,
- the new theory of interest rate as the cost of money does not automatically equate investments and saving at the aggregate level,
- introducing an element of uncertainty into economics, i.e. rejecting classicist view that in the present decisions, the consequences for the future are absolutely predictable,
- the necessity of managing aggregate demand due to the fact that the system left on its own tends to aim for suboptimal equilibrium,
- the commitment to fiscal policy, due to the inefficiency of monetary policy, although money is non-neutral.

Specific conditions of the Great Depression, as well as the economic policy measures taken in a number of states as of 1933 contributed to the success of Keynes' theory, although it is important to point out that Keynes had already introduced some elements of his revolutionary system even before the crisis in 1929. The reason for this lies in the fact that immediately after the First World War, unlike the USA, Great Britain faced a chronic economic crisis and economic downturn which was mainly characterized by high unemployment rate, which between 1923 and 1929 never went below a million people. No wonder, therefore, that Keynes devoted most of his time to the issues of unemployment and recession pressures. In fact, after the First World War, there was a repositioning of global economic power and influence, so that Europe, especially Great Britain, lost its place as the world center of industry and capital, and the United States became a global supplier of money and industrial goods.

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The Great Economic Crisis originated in the USA and 80% of the crisis relates to the crisis in the USA. However, it is necessary to simultaneously consider economic trends and events in different countries for the purpose of detecting the channels through which the depression pressures and trends spread among economies. Of course, the economic developments that preceded the crisis were significantly different in different countries.

The American economic boom that started during the war, continued up to the Great Economic Crisis in 1929, with a short-term crisis in 1920-21. This was a classic cyclical rise in which growth is attributed to all macroeconomic indicators, with significant credit expansion, accompanied by increased demand for capital. The credit expansion was relevant for crediting US economy, but also for significant investments of its funds in other economies, among which Germany was the largest borrower.

Although the economic crisis of the 1930s was an important macroeconomic event not to be compared with any other in economic history, questions of its sources, transmission mechanisms, primarily of the errors of the policy makers which have caused or contributed to its deepening remain unanswered. Of course, an important place, if not the decisive one in this analysis belongs to monetary policy and the decisions, often fatal, made by monetary policy makers.

Regardless of how you determine the source of the crisis of 1929, it seems that the role of shocks in aggregate demand was crucial, both for its commencement, and for its deepening. Among aggregate demand shocks, the most prominent ones were monetary shocks. Namely, it is undisputable that money stock, income and price grow during the period of economic expansion and decline in periods of economic contraction. However, the causation between the movements of these values has not been fully established. Monetary theory of causation assumes that the monetary contraction before and during the Great Depression affected the decrease in prices and income. On the other hand, the monetary contraction in the 1930s could also be explained by passive monetary policy in response to a fall in income, so that the sources of the crisis lie in real factors that have contributed to the reduction in consumption.

In the period preceding the economic crisis, the monetary authorities in the USA were preoccupied by the boom happening on the stock exchange. Therefore, the Federal Reserve wanted to limit speculators, by increasing interest rates, but in doing so not to hinder further favorable economic trends. Unfortunately, they have failed, many believe, because not even the monetary theory fully understood the way of determining money stock, or the role of money in the economic system. (Wicker 2002, 51)

Several decades after Keynes' theory, the monetary theory of cyclical fluctuations showed that the amount of money stock, affecting the level of aggregate demand, can cause cyclical fluctuations in income, so that the trends in the amount of money stock correspond to the income movement trends. Applied to

the economic crisis of 1929, Friedman has found that monetary policy of Federal Reserve System deteriorated economic trends, in the manner that the monetary contraction from the beginning of the 1928 ended the stock market boom, and that monetary policy during the 1929 was too tight.

The pressure on deflation came from: the fall of the monetary multiplier and the reduction of money stock. Most economic historians agree that the monetary policy of the United States, which spread throughout the economy due to banking panic, was in the early stages the key factor which triggered the crisis. In response to the expansion present on stock exchange since 1926, the Federal Reserve performed monetary contraction in early 1928. This influenced the increase in interest rates, preceding the economic contraction in the USA, which started in August 1929. (Prascevic 2007, 487)

In addition to the USA monetary policy, monetary policies in other countries were also inadequate thus confirming that it was one of the factors deepening the crisis further. Namely, monetary contraction, which came from switching to the gold standard adopted by monetary authorities in many countries, was apparent on global level, so that in 1929 it was universally accepted monetary policy.<sup>1</sup> Introduced as a way of restoring stability, the gold standard was abandoned in most countries during the financial crisis and panic that occurred during 1931. It was this rejection that contributed to getting out of the crisis, because those countries that made this choice later, recovered more slowly.<sup>2</sup>

A serious recession in the USA in 1929, transformed into a depression in 1930 due to banking panics that occurred primarily because of inadequate, i.e. not sufficiently aggressive monetary policy of the Federal Reserve, which failed to prevent the decrease in money stock. Reducing the money stock influenced the reduction of income through these channels: the reduction in aggregate demand, bank insolvency and bankruptcy of banks which prevented the functioning of the financial system, the deflation of asset prices and deflation caused by over-indebtedness.

The factor which contributed to the deepening depression was the bankruptcy of banks and particularly the effects that this bankruptcy had on the disruption of the already initiated credit relations and flows. It can be noted that during the Great Depression there were several waves of banking crises in the USA, and that they coincided with poor macroeconomic trends. The first wave of the banking crisis was in the period from November to December 1930 and marked the end of hopes that economy would recover from the fall of the 1929-30, the next banking panic occurred in the mid 1931, and bankruptcies in banking and financial sectors culminated in March 1933.

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<sup>1</sup> Great Britain reintroduced the gold standard in 1925, France in 1928.

<sup>2</sup> Complete collapse of the gold standard system came in 1936, when even the countries of the called "Golden Block" (e.g. France) abandoned it, by devaluating their currencies.

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The correspondence between the financial crisis and the crisis of the real sector in economy did not originate from the fact that the financial system responded passively to the decline in aggregate income, but it was rather the problems in how the financial system functioned that led to such a fall. During the four years of economic crisis in the USA, as many as 9,000 banks were closed, so that the number of banks dropped to 40% of the initial. In most cases these were small - local banks. In addition to the losses suffered by the depositors and the shareholders, there were also adverse effects for those who had already taken loans from these banks.

The shock to the economy caused by the closure - bankruptcies of banks was enormous. As much as 10% decline of GDP, or one third of the decline during the Great Depression can be attributed to the collapse of the banking sector. It was apparent that the structure of banks in the United States was a significant aggravating factor because it was dominated by small, independent banks that proved more vulnerable than large banks, such as those that existed in the Great Britain or France at the time.

The end of the crisis was directly linked to the abandonment of the gold standard and the measures which restored confidence in the financial system. Of course, it was also accompanied by expansionary monetary and fiscal policies.

### **The Inefficiency of Monetary Policy in Fighting Recession**

Regardless whether the view that monetary shocks and monetary policy in general were the main causes of the Great Depression is accepted or not, it is generally accepted that monetary policy is ineffective in the fight against recession. This attitude which monetary authorities often illustrate by the proverb "You can lead a horse to water, but you cannot make it drink" (Axilrod 2009, 17) is based on monetary theory both in Keynes' and the Keynesian, as well as in the opposing one - monetary.

Keynes' monetary theory rejected the quantitative theory of money and offered a theory of liquidity preference. The new theory focused on money demand and introduced interest rates as the key determinant of demand for money<sup>3</sup> which was to replace money stock as the target in monetary policy within the Keynesian model of monetary policy. Keynes' theory considered the speculative motive of demand for money where money becomes an alternative to interest bearing assets (such as bonds) especially important. This money does not earn interest, but it provides liquidity. In this case, money has the function of the guardian of values, or

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<sup>3</sup> In fact, it was Irving Fisher (1930) who emphasized the need to introduce interest rate as the key determinant of demand for money.

assets<sup>4</sup>. Investors prefer cash if their investments in bonds involve certain financial losses to be suffered while holding the bonds, or money. These financial losses represent the comparison of interest rates to be received in the present period ( $i_t$ ) and the interest rates that are expected in the future ( $i_{t+1}$ ). There is the interest rate ( $i_t$ ) at which the speculative demand for money will become infinite, when the interest in interest-bearing assets is completely lost and when economy is in a *liquidity trap*. In these conditions, monetary policy becomes ineffective, and this condition is favourable for low interest rates that inevitably occur in the period of economic recession and crisis, as a consequence of expansionary monetary policy to encourage investment and stimulate economic activity. Financial losses from investments in bonds occur in a situation where (Bofinger 2001, 25):

$$i_{t+1} > \frac{i_t}{(1 - i_t)}$$

That is, critical interest rate in the future, at which there is absolute preference for liquidity today, is:

$$i_{t+1}^* = \frac{i_t}{(1 - i_t)}$$

whereas, the speculative demand for money appears as a decreasing function of long-term interest rates:

$$M_s^D = f(i_t), \quad \text{for } \partial M_s^D / \partial i_t < 0$$

The key element of speculative demand for money, and therefore the total demand for money<sup>5</sup> are the expectations that investors have regarding the future trends in interest rates, the long-term interest rates to be more precise. This represents a major limitation of the effective influence of monetary policy on economic activity through the interest rate channel, because recession would decrease interest rates on its historic low, and at the same time there is no corresponding effect on investment growth.

Keynes' speculative demand for money is especially obvious when applied on broader monetary aggregates such as M3, so that if the long-term interest rate is very low the demand for the M3 will be relatively high because of the speculative motive.

<sup>4</sup> Necessary preconditions for the execution of this demand are: there is only one alternative to holding money – these are bonds that bring permanent annual interest and time horizon used for decision making is limited.

<sup>5</sup> In addition to the speculative motive, Keynes also points out the transactions and precautionary motive, but they are significantly less important to his theory, and almost completely in line with the quantitative theory. Both motives, and therefore these forms of money demand occur as a result of the overall activity of the economic system, so that they are a stable increasing income function.

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The inability of monetary authorities to encourage individuals – households to spend, or the economy and investors to invest, because of the inadequate response of investment to lower interest rates or because of the increase in household savings out of banks and financial flows, does not excuse them from the responsibility for causing the state of economic recession or crisis. It is precisely this issue that was discussed by monetarists whose theory of business cycles is based on the monetary impulse, as the key factor which starts the cycle: “If Federal Reserve were solely to maintain the growth of M1 or M2 at low, stable rates, economy would avoid high inflation rates, painful deflations, and huge booms and downturns of business cycles.” (Mankiw 2001, 31)

The circumstances of the Great Depression of the 1930s corresponded, as it was mentioned before, with the Classicist vision of how an economic system works, and within it with passive approach to monetary policy, limited by the gold standard. This is why monetary policy during the Great Depression cannot be deemed inefficient, but inadequate. With this respect, it is noticeable that there was a significant reduction in the amount of inside money stocks in the countries that adhered to the gold standard, which represented a continuous negative monetary shock during the economic crisis. The reasons for this lie in insufficient knowledge on how the monetary sphere functions, the adverse effect that the gold standard had on economy, as well as in poor assessment of the effects of trends in the currency-deposit ratio when determining money stock.

Significant monetary contraction in the USA is best reflected in the data related to the trends in the amount of M1. In the period between 1929 and 33, the monetary aggregate decreased by 23% (from \$ 26 billion to \$ 19 billion), and it was as late as in 1936 that it recovered the level it had in 1929.

When trying to determine why during the Great Depression in the United States almost a quarter of money stock was lost and the extent to which it was the result of misguided monetary policy, it is necessary to start from the model for determining money stock (inside money stocks, for example M1 - cash plus current accounts), which was developed during the gold standard (Bernanke 2004, 9):

$$M1 = (M1/BASE) \times (BASE/RES) \times (RES/GOLD) \times P_{\text{gold}} \times Q_{\text{gold}}$$

Thus the inside money stocks depend on:

- the physical quantity of gold reserves that the country has –  $Q_{\text{gold}}$ ;
- the price at which the central bank is prepared to buy or sell the gold -  $P_{\text{gold}}$ ;
- the value of money multiplier (inside money stock ratio - the monetary base:  $M1/BASE$ ) which is a decreasing function of the currency- deposits ratio, determined by the public on the basis of their decisions to choose between holding cash and deposits, as well as the decreasing function of the reserves - deposits ratio which is determined by commercial banks (the value of the multiplier in the USA in 1929 was almost equal to 4);

- the value of inverse gold backing ratio ( $\text{BASE} / \text{RES}$ ) with its maximum value defined by the central bank determined by the minimum amount of gold backing ratio; minimum value of the inverse ratio is not determined;
- the value of the international reserves – gold ratio ( $\text{RES} / \text{GOLD}$ ).

Money stock in the gold standard countries was significantly higher than the value of gold reserves<sup>6</sup>, and the total amount of monetary gold continued to increase during the 1930s, however, there was a decrease in the supply of internal funds as a consequence of a decrease in average money - gold ratio. This occurred due to the monetary contraction in the USA, so in the period between June 1928 and June 1930, the inverse gold backing ratio dropped from 1.871 to 1.626, which led to a reduction in the monetary base in the USA by 6%, while at the same time the amount of gold reserves in the USA increased by more than 10%. Other countries followed such tight monetary policy of the United States. However, the decline in this ratio during 1931 came from banking panics and collapse of the largest bank in Austria in May 1931 (Kreditanstalt) which influenced all the components that determine the value of the money – gold ratio, that is, its drop through the following:

- growth in aggregate value of the currency – deposits ratio and bank reserves – deposits ratio, which led to the fall of the monetary multiplier, typical for the state of banking panics,
- the exchange rate crisis and the fear of devaluation which resulted in the decrease of international reserves - gold ratio ( $\text{RES} / \text{GOLD}$ )
- the increase in the gold coverage ratio because central banks attempted to secure themselves in case of attacks on their currency, which they solved by increasing gold reserves and the continuous decline in  $\text{BASE} / \text{RES}$  ratio, which also occurred due to the sterilization of gold inflows in the countries with a surplus of gold, for fear of inflation.

Thus, during the Great Depression monetary policy faced contradictory tasks with respect to the banking crisis and the exchange rate crisis, since the banking crisis required an expansive monetary policy and the exchange rate crisis demanded tight monetary policy. Central banks, especially the Federal Reserve solved this puzzle by opting for monetary contraction. This choice also resulted from a poorly developed theoretical framework for understanding the process of money stock domination in the gold standard environment, but also from a lack of understanding the crucial role of public expectations and investors, i.e. economy, which determines their behavior both with respect to the choice of where to keep the money, and to their choices in terms of investment, i.e. economic activity.

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<sup>6</sup> Because the value of the ratio:  $\text{M1}/\text{BASE}$ ,  $\text{BASE} / \text{RES}$ ,  $\text{RES} / \text{GOLD}$  were higher than 1. A naive view of the gold standard would be that the money stock in the gold standard was simply determined by the value of monetary gold, i.e. the quantity of gold reserves.



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If we apply this to the monetary policy during the Great Depression, we can determine the existence of multiple potential equilibriums of money stock, which exist precisely because of different expectations of the public - "optimistic" or "pessimistic" (the two Nash's equilibriums). (Bernanke 2004, 12) The monetary authorities, during the Great Depression, however, did not take into account extremely pessimistic expectations because of which the monetary policy had even more negative effects in relation to the results which would have existed in a generally optimistic situation.

In this segment as well, it is important to note Keynesian theory, which is based precisely on the introduction of uncertainty into the system, which makes it impossible to confidently talk about the outcomes of certain economic activities in advance. If we also include his view of cyclical fluctuations as a permanent succession of optimism and pessimism characteristic for investors and entrepreneurs and influencing their "animal spirit" and their willingness to invest, which results in discrepancies between savings and investment, we come upon a new explanation of economic recession stages, but also upon a new explanation of the economic, and even monetary policy to be made. Unfortunately, Keynes' findings were not implemented during the Great Depression, and were partly implemented in some economic programs for overcoming depression, among which certainly the most significant one was Roosevelt's "New Deal".

Keynesian explanation of the economic boom is related to the over-investment as a result of false expectations, i.e. *illusions of the boom*, which lead to waste of resources and misdirected investments. Psychological factors are of decisive importance: "But over and above this it is an essential characteristic of the boom that investments which will in fact yield, say, 2 per cent in conditions of full employment are made in the expectation of a yield of, say, 6 per cent, and are valued accordingly. When the disillusion comes, this expectation is replaced by a contrary "error of pessimism", with the result that the investments, which would in fact yield 2 per cent in conditions of full employment, are expected to yield less than nothing." (Keynes 1987, 185)

The economic boom thus results from a combination of interest rates which in the conditions of correct expectations would be too high and wrong expectations: "A boom is a situation in which over-optimism triumphs over a rate of interest which, in a cooler light, would be seen to be excessive." (Keynes 1987, 185) Monetary economics and politics are, according to Keynes, of secondary importance, both for the start of economic crisis and for its completion. Instead, the key element is effective demand and its determiners. As long as monetary policy is made in order to provide the appropriate level of effective demand, corresponding to full employment, we can say that it is safe. However, the determiners of effective demand point to the lack of monetary policy efficiency and the necessity for economic policy to be based on fiscal policy when fighting with recession.

**Deflation and Inflation as a Result of Cyclical Fluctuations  
- the Limitations of Monetary Policy**

In addition to economic activity that is characterized by cyclical movements, we can also identify cyclic changes of general price level. In periods of economic expansion, general price level grows, as a result of general economic boom, which is linked to increases in all components of aggregate demand - especially private consumption and investments, and general optimism characteristic for consumers and also for investors and producers. It is the threat of growing inflation that encourages monetary authorities to conduct a restrictive monetary policy that attempts to "cool" the economy, primarily through increases in interest rates. This "cooling", however, can cause a change in the direction of economic activity, i.e. start a recession. This, monetary explanation of cyclical economic fluctuations was offered by monetarism.

Similarly to inflation that is associated with economic expansion, deflation is characteristic for recessionary economic trends and occurs as a consequence of lower aggregate demand, although it soon becomes the very cause of a further decrease in economic activity. While the negative effects of inflation are well known, the negative impact of deflation is not so obvious, even though in monetary economics it becomes particularly acute in periods of recession when the fear of a potential onset of deflation is justified. Deflation contributes to poor economic performance in two key ways: by increasing the real value of debt and the growth of real wages in the world generally characterized by rigidity of nominal wages.

Deflation triggers Fisher's mechanism (1933) of deflationary impact on debt value, according to which lower prices of goods are associated with a decrease in asset prices (property), increasing the burden of real indebtedness, which leads directly to bankruptcy of a number of economic agents. It should be added that this mechanism, which is activated during economic recessions, is preceded by increased borrowings in times of economic boom when there are optimistic expectations regarding future economic developments. At the same time, it is possible to have a reverse effect - the price of assets on commodities prices. Precisely this effect is present at times of financial crisis, and it was the trigger which started the latest global economic crisis in 2007. Therefore, it is important to state the viewpoint that the financial bubble helps the formation of other bubbles, primarily in real estate markets and consumer goods market. The maintenance of these bubbles soon becomes a threat to the continuance of economic boom, but also a necessary condition, because if these bubbles burst, it increases the risk of deflation. (Burdekin et al. 2004, 3)

In the decades that preceded the global economic crisis of 2008, growth of financial assets in total wealth, businesses, and households was accumulated. That made the impact of the wealth on prices of goods more significant, particularly in the households sector in which a sudden negative impact on net household wealth

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in the form of falling prices of financial assets has a significant effect on behavior patterns related to savings and consumption. It then starts deflationary pressures, which become especially dangerous in combination with the slowdown in the real sector of the economy. To this, we should also add the effect of the shift to a restrictive monetary policy in the United States, from mid 2005, in response to a bubble that was emerging in financial markets and especially the housing market. In fact, the real estate market in the United States experienced a boom in the period after having experienced an unusually short and mild recession (March 2001 until November 2001).

The theoretical framework of the deflationary spiral analysis and the risk of deflation can be found in the Phillips' curve model. In this model, results depend on the type of expectation integrated in the model. If we include adaptive expectations, oriented towards the past, the model can be expected to generate a sharp recession deflationary spiral since the decline of economic activity leads to decreased rates of inflation, which leads to further reduction in the expected rate of inflation, which at one time may turn into deflation. The deflationary spiral will end only upon the completion of economic contraction. If, however, rational expectations are integrated in the model, which include the use of all available information concerning not only the changes of inflation in the past, as in adaptive expectations, but also information on current goals of monetary policy and the measures taken in order to achieve them, the deflationary spirals need not be started, even if the recession is very severe. In this model, it may be expected that the economic agents in forming expectations take into account the fact that the objective of monetary policy has changed and that, instead of price stability, they focus on low but positive inflation rate. In this case, a deflationary spiral will run only in the worst case of a very sharp recession and complete monetary policy ineffectiveness.

However, if we consider the fact that during a recession one of the key objectives of monetary policy, in addition to stimulating economic activity and employment, is precisely a struggle to avoid deflation at any price, then monetary authorities are expected to familiarize the public with their aim of low, but positive rates of inflation, so that they can include that information into their expectations. Changes in inflation in the USA during the latest recession suggests that, despite an extremely sharp recession reflected in very high unemployment rate that has exceeded 10%, which remains at a very high level even after the recession has ended, the Federal Reserve managed to avoid running deflationary spiral.

In addition to an expansionary monetary policy, this result also comes as the consequence of a particularly significant fiscal expansion, which in the USA cannot be compared to any peacetime period, given that before the start of the latest crisis the government budget deficit had exceeded 10% of GDP only three times: during the Civil War (in the nineteenth century) and during the two world wars (in the twentieth century).

### **Monetary Policy in the USA in 2000s: a Source or a Way to Overcome Cyclical Fluctuations**

The analysis of monetary policy effects as an instrument of countercyclical policy, requires very careful study of the episode of alleviation and elimination of the recession in the USA, during 2001, as one of the explanations for the present crisis, the one based on the monetary impulse, stems from the mistakes that the Federal Reserve made in creating their monetary policy. This explanation is essentially monetarist, because it holds the monetarist view of the sources of cyclical fluctuations.

The recession in the USA in 2001 was the shortest and mildest in the American economic history, as illustrated by the fact that the unemployment rate did not exceed the natural unemployment rate. However, the response of monetary authorities was too expansive - they reduced interest rates at the very signs of economic slowdown: from the initial 6% in January 2001, to 2% in November 2001, when the recession was declared, and when the cycle had, in fact, already reached its lowest point. They continued lowering the interest rates until June 2003, when it was only 1%, while the very low rate policy was also continued during the next year, although in July 2003 the NBER announced that the recovery had started in November 2001. Yet, despite this fact, the interest rate increased slowly so that it was only in December 2004 that it increased above 2% (to 2.25%). (Federal Reserve System)

Such low interest rates boosted borrowings and risky behavior. Especially risky behavior existed in the property market, where in addition to increased demand by households, there also was speculative behavior, which occurred due to the expectations of further growth in property prices. These trends were followed by an expansion in construction business (especially in the construction of residential buildings), which peaked in September 2006, after which there was a decline accompanied by a drop in real estate prices. Mortgage market meltdown was the first signal that the inflated "bubble" in the USA was about to burst, and the over-indebtedness of households, and companies became obvious. The reaction of monetary authorities, however, began only after it had become clear that the recessionary trends were certain, that is, from autumn 2007, because after the mortgage meltdown it seemed that their effects are limited. At the same time, due to high utilization of economic capacity and full employment rate in mid 2007 (in May 2007 the unemployment rate in the USA was 4.5%, which is lower than natural unemployment rate), the monetary authorities started lowering interest rates, subject to a possible rise in inflation. Namely, it is well known that inflation is a variable that is late, which means that it peaks after the cycle has had its peak, because the rise in inflation can be expected only in the short period after the economy has entered into an economic contraction, which was exactly what Federal Reserve considered. However, shortly after that, monetary policy became preoccupied with the struggle against a very sharp recession, a potential deflation, and with the struggle to preserve the financial system.

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The questions that can be raised are: whether the monetary policy in the period immediately before the start of the crisis was too restrictive, whether monetary policy to fight recession in 2001 was too lax, and whether the monetary expansion lasted for too long. These questions make monetarist view that monetary policy is the cause, not the solution to cyclical economic fluctuations legitimate. This is consistent with their commitment to monetary rules, rather than discretion in monetary policy making, but also to target monetary aggregates, not the target interest rate as the backbone of monetary policy. Along these lines, and not less significant, is their demand for a single objective of monetary policy - stable prices, instead of two objectives - price stability and full employment.

The theoretical foundation for the attitude that monetary policy based on the target interest rate is inadequate as a means to stimulate or limit economic activity can also be found Austrian theory and somewhat earlier in the theory of Knut Wicksell, according to which, if the interest rate is maintained at a lower level than the natural interest rate<sup>7</sup>, which stimulates economic activity, it will generate economic expansion, but it will inevitably lead to a cyclical decline in economic activity: “... Monetary expansion can and will lead to investment booms. However, in the long term, offsetting economy with entrepreneurs’ errors, caused by monetary expansion, creates a crisis. The final effect of monetary expansion may be an increase, not a decrease in unemployment. In the long term, monetary expansion as a method for increasing production is not only inefficient, but can cause an imbalance and unemployment of resources. Active policy can cause greater economic instability, not greater stability.” (Cochran et al. 1994, 81)

Artificially caused decrease of interest rate below the natural rate leads to an imbalance between a propensity to save and a propensity to invest, which includes increased investment not accompanied by bigger savings. This is why, according to the theory of one of the most important representatives of the Austrian School, Friedrich von Hayek, the crisis appears as a way to “force” the society to save more than it wants to (*forced saving*). This forced saving that occurs as a result of expansion of consumption and borrowings, however, according to the Keynesian chain of events, causes additional decline in economic activity, increases unemployment, and even lowers the propensity to invest and the deepens the crisis. Of course, the conclusions about the consequences that exist within the Austrian theory are different from those of the Keynesian theory. The Austrians state that a crisis occurs as an inevitable consequence of monetary expansion, which of course cannot last indefinitely, due to the threats of inflation that accompany a phase of unjustified economic prosperity, and which is prevented by restrictive monetary policy, which leads to the end of expansion and the beginning of a recession.

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<sup>7</sup> Hayek defined natural rate as the rate at which the desire of investors to invest equates with the propensity of economic agents to save.

Regardless of the theoretical concepts of the Austrians and monetarists about the unacceptability of active monetary policy because of the neutral quality of money, when in late 2007 the recession in the USA started, the Federal Reserve were the first to react by lowering interest rates. The reasons for this partly stem from the fact that the Federal Reserve monetary policy is not based on theoretical assumptions of the Austrian school, or on monetarism, but it is basically based on one form of Keynesian monetary theory in which the target is interest rate and not monetary aggregates. It is a new Keynesian theory, whose representative is current Federal Reserve governor, Ben Bernanke, although in the previous period, the period when the governor was Alan Greenspan monetary policy was also guided by the so called Taylor rule<sup>8</sup>, which is the rule of "feedback", based on a short-term interest rate that varies according to the deviation of inflation rate from the target inflation rate, as well as to the deviation of income from potential income - generated at full employment. This rule reflects two objectives of monetary policy, defined in the Federal Reserve foundation act:

- price stability
- maximum employment.

Federal Reserve did not abandon these goals even during the period when monetary policies in many countries were dominated by the rule of targeted inflation rate. This suggests that the monetary authorities in the USA still had to provide equilibrium in achieving these two objectives, which in the short term may be conflicting, although in the long term it is clear that price stability is a necessary condition for maximum sustainable growth in income and employment. These objectives indicate that monetary policy is used as a tool to reduce cyclical fluctuations. (Cecchetti 2000, 44)

The original Taylor rule gives equal importance to the stabilization of income in relation to potential long-term level ( $y_t$ ) and reducing inflation deviations from target inflation rate:

$$i_t = \pi_t + r^* + 0,5(\pi_t - \pi^*) + 0,5(y_t)$$

$i_t$  - federal interest rate,  $r^*$ - equilibrium real interest rate,  $\pi$ - current average inflation rate,  $\pi^*$ - the target inflation rate,  $y$  - income gap

Based on Taylor rule, it can be concluded that the Federal Reserve monetary policy was based on equilibrium in the implementation of both objectives - price stability and deviations of income from its natural level. Furthermore, it can be concluded that the monetary authorities had opted for a combination of Keynesian and monetarist recommendations theory regarding monetary policy. Keynesian elements still prevailed, which is reflected in the choice of interest rates

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<sup>8</sup> The rule was defined by John Taylor, also a representative of the New Keynesians.

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as an instrument of monetary policy, indicating a commitment to use monetary policy for countercyclical purposes, which is exactly the Keynesian idea of non-neutrality of money and the possibility to stimulate economic activity until economy comes to the state of liquidity trap. (Prascevic 2008, 47)

Monetarist elements are reflected in the choice of the monetary policy rule, rather than the Keynesian discretion. However, it is obvious that this is actually a "Keynesian" rule that determines the reaction function of monetary authorities, which includes a nominal anchor, as a way to get into a situation where aggregate demand is equal to income, or aggregate supply, activates endogenous feedback. The rule indicates that monetary policy has:

- the function of providing a nominal anchor - targeted inflation rate, so that the interest rate changes in response to deviations of inflation rate in relation to the targeted value;
- the function of stabilizing income, or cyclical fluctuations - through changes in interest rates in response to the deviation of income potential, i.e. opening a gap in output. (Allsop, Vines 2000, 11)

Since late 1980s, the Federal Reserve, thus, created monetary policy based on Keynesian rules, abandoning monetary targets that were present at the time of Governor Paul Walker (1979-1982), when the primary goal was to avoid inflation. During the 1990s and 2000s it abandoned targeting monetary aggregates, which were argued be monetarists, in favor of interest rates, so that the era of Alan Greenspan fits well with Taylor rule, whereas its application to monetary trends in the period of Paul Walker testifies that monetary policy in this period was too restrictive and focused on one sole goal.

Nevertheless, following the recession of 2001, monetary authorities made a mistake of the most significant deviation of monetary policy from Taylor rules since the 1970s. Namely, in the period between 2002 and 2006, monetary policy was too expansive in determining the interest rate at too low a level, which fueled aggregate demand and led to a boom in the housing market. According to the Taylor rule, interest rates were supposed to start rising as soon as in early 2002, and reach the level of 5% in 2005. Instead they continued to decline, remaining on the historic low of 1% in late 2003 and early 2004, when, according to the Taylor rule, they should have been in the range of 3% to 4%, and reached their maximum of over 5% in mid 2006, instead of mid-2005. (Taylor 2009, 3)

Taylor finds the explanation for such actions by monetary authorities in the abandonment of the rules and acceptance of discretion in monetary policy, which was primarily motivated by avoiding deflation, such as that in Japan during the 1990s. (Taylor 2009, 4) This only proves the claim of the current Federal Reserve governor, Ben Bernanke, that the strict separation of the rules of discretion in monetary policy does not exist, or that the strict rules of discretion without any interference, as the monetarists understood them, or complete discretion argued by

the Keynesians, does not exist. A discretion which would imply that monetary authorities do commit to the objectives of their policy, nor to publish the actions taken to ensure their implementation, but to define their policies on a weekly basis depending on the current conditions, is completely abandoned. Similar is true for rules as well, all monetary regimes involve some discretion; it is only a matter of the degree to which discretion is present. (Bernanke et al. 1999, 5-6]

**Table 1: Characteristics of a monetary policy regime**

| Monetary policy regime | Threat of inflation | Stabilization of demand costs |
|------------------------|---------------------|-------------------------------|
| Discretion             | Greatest            | Maximum                       |
| Partial discretion     | Medium              | Medium                        |
| Rules                  | Lowest              | Minimum                       |

*Source:* (Lippi 1999, 56)

Although the introduction of partial discretion in monetary policy was primarily motivated by the stabilization of demand shocks and encouragements in economic activity, in the USA discretion led to an unjustified economic expansion, which inevitably had to end in a contraction and recession. In addition, discretion led to a growth in inflation rate to an average annual rate of 3.2%, higher than the targeted inflation rate of 2% which was included in the rule. Therefore we can conclude that monetary policy based on rules, including Taylor rule, provided both the stability of economic activity and low inflation rate.

### **Monetary Policy in the Fight against Economic Crisis in 2008**

With the start of the global economic crisis in 2008, the goals of central banks in promoting maximum volume of employment and controlling inflation were reaffirmed. This was the case both in the USA as a leading economic power and the country where the crisis originated and in other economies as well. Of course, given the cyclical decline in economic activity, inflation ceased to be a significant threat, the concern about it ceased to be valid. On the other hand, stimulating economic activity and employment as a goal of monetary policy was previously present in the USA, but because of the economic expansion that with a short interruption in 2001 had existed since 1991, it was forgotten. Therefore, this objective was not substantially affirmed because market mechanisms provided adequate results.

The global economic crisis marked a decline in global aggregate demand. This is why the package of economic measures in the monetary policy domain meant taking measures to encourage an increase in aggregate demand in all



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countries where this was possible in the context of maintaining macroeconomic stability without compromising fiscal and monetary stability. In addition to stimulating aggregate demand through lowering interest rates, most central banks had to fight the financial crisis that had significantly affected the banking sector. This is why monetary authorities in some cases even had to directly save commercial banks from bankruptcy. At the same time, the state in many countries became the guarantor for savings up to certain amounts, in order to avoid the situation that existed during the Great Depression of 1929 when there was a stampede rushing at banks and banking panics, which ended in the liquidation of banks.

In the USA, where the crisis started, monetary policy was extremely aggressive and was reflected in reducing interest rates, which eventually reached the lowest level of 0 to 0.25% (December 2008), as well as in active measures taken to eliminate the liquidity crisis. The Congress approved the TARP program in order to provide bank capital, as well as to stabilize the money market and short-term commercial securities market, and to help major financial institutions, in order to avoid their collapse, which could cause the collapse of the entire financial system.

Simultaneously, the financial crisis in the USA prevented the credit financing, including different types of loans to households and businesses. This led to further reduction in aggregate demand because it additionally reduced employment and increased unemployment, which became the number one problem in the United States. Expansionary monetary policy, unprecedented in US history, was followed by the equally expansive fiscal policy, and these combined led to the end of the recession in June 2009. However, given that the recovery has been very weak, the need to maintain an expansionary monetary policy still remains. This, weak economic recovery proves that this was a specific, quite significant disruption of the economic system, which can be compared only to the Great Economic Depression of the 1930s. Therefore, this is not only the longest postwar recession, but the recovery is the slowest and weakest (had it been the same as after the recession in the 1940s or 1980s, which had been the sharpest recession until this one, the unemployment rate in August 2010 would have declined to about 8%, which did not happen, but it remained at nearly 10%).

It is important to state that the expansionary monetary policy in the United States was possible because they had no fear of inflation, but quite opposite, they had the fear of deflation. Therefore, the Federal Reserve determined low but positive inflation rate as its target, not price stability. Unlike the USA, some countries were limited in the application of expansionary monetary and fiscal policies, because they produced the effect of increased inflation rate. This experience was present in less developed economies in transition, such as Serbian economy.

### Conclusion

Economic recessions always make the issue of the targets and methods in economic policy relevant, especially those of monetary policy. This was the case with the major economic depression of 1929, but also with the latest global economic crisis of 2008. After the Great Depression, there was a major change in the development of economic thought reflected in the emergence of Keynesian economic theory and the emergence of macroeconomics as an economic discipline. In the monetary economics and policy, Keynesianism marked an end to the domination of the quantity theory of money and a switch to the theory of liquidity preference, i.e. to active monetary policy, which also includes the goal of full employment and stimulation of economic activity. Although monetary politics is ineffective, according to the Keynesians, it is necessary in attempts to overcome economic recessions. In this context, the episode of monetary policy practiced during the Great Depression is considered to be a decisive factor for its continuation and sharpness, because adherence to the quantitative theory of money contributed to the monetary contraction, completely inappropriate for the conditions in which it was inflicted, further lowering the already low aggregate demand.

After frequent occurrence of inflations in the twentieth century, and after the collapse of the domination of Keynesianism and the rise of monetarism and New Classical macroeconomics, the monetary sphere promoted one objective - price stability, while the second goal, full employment, was neglected and disputed due to the well-known neutrality of money. However, monetary policy practiced in the USA during the 2000s was in accordance with the Keynesian efforts for determining the interest rate as an instrument of monetary policy, with a large influx of discretion. It proved to be, analogous to the ideas of monetarists and the Austrian school, a policy which created conditions for an artificially induced economic expansion, which was followed by an economic collapse, similar to that from the 1930s. However, although aware of the mistakes in the past, in the fight against recession, monetary authorities implemented familiar countercyclical measures, essentially Keynesian, in an attempt to use monetary policy to encourage economic activity through the stimulation of aggregate demand, as well as to avoid the start deflationary spiral in any possible way. At the same time, monetary authorities were preoccupied with the issue how to avoid the collapse of the entire financial system, which sometimes directly implied direct rescue of important financial institutions by pumping money into the system. Expansionary monetary policy was accompanied by expansionary fiscal policy which attempted to increase aggregate demand, given that global economic crisis meant global reduction of aggregate demand.

The return to the stimulation of economic activity and thus employment, as the target of monetary policy, represents an important innovation, or in the case of some central banks, reaffirmation of a forgotten goal. This target still was limited by a possible rise of prices or inflation, especially if we bear in mind that there also was a fiscal expansion unprecedented in economic history, and that macroeconomics is well aware of the fiscal syndrome of high inflation.

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## MONETARNA POLITIKA I EKONOMSKE RECESIJE - CILJEVI, INSTRUMENTI I EFEKTI

**Rezime:** Rad je posvećen razmatranju važnih pitanja monetarne politike u situaciji koju nameće potreba prevazilaženja ekonomske recesije. U ovom se kontekstu razmatra monetarna politika vođena tokom Velike ekonomske depresije 30-ih godina XX veka, kao i greške monetarne politike koje su dovele do otpočinjanja i kasnije do produžavanja i produbljivanja ekonomske krize. Velika depresija doprinela je uspehu i dominaciji kejnzijanske teorije i u monetarnoj sferi, koja se odnosi na odbacivanje kvantitativne teorije i prihvatanje teorije preferencije likvidnosti. Poslednja globalna ekonomska kriza iz 2008. godine reafirmisala je dualne ciljeve monetarne politike – cenovnu stabilnost i punu zaposlenost. Istovremeno je aktuelizovana i diskrecija u vođenju monetarne politike na osnovu kamatne stope, mada su upravo diskrecione mere monetarne politike sa početka 2000-ih, usmerene na prevazilaženje kratke i blage recesije tokom 2001. godine u SAD, označene kao mogući izvor poslednje krize. Monetarna ekspanzija, iako nedovoljno efikasan metod za prevazilaženje recesije, upravo kako je tvrdila kejnzijanska teorija, bila je neophodna u situaciji kada je finansijski sistem trebalo spasiti od kraha, obezbediti likvidnost i doprineti povećanju agregatne tražnje. Naravno to je bilo moguće u situaciji kada su se ekonomije suočavale sa pretnjom otpočinjanja deflatorne spirale. Međutim, dugotrajna monetarna ekspanzija, praćena fiskalnom ekspanzijom i veoma slabim oporavkom nameće pitanje konačnih efekata monetarne politike koji mogu u budućnosti biti obeleženi i rastućom inflacijom.

**Ključne reči:** ekonomska recesija, ciljevi monetarne politike, kejnzijizam, Tejlorovo pravilo



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## **SUSTAINABLE DEVELOPMENT – MULTIPLE MEANINGS YET UNAMBIGUOUS NECESSITY**

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**Abstract:** *We are witnessing a number of issues that are surrounding us and are becoming global: there are fewer resources, while the needs are growing. These are problems of increasing population, unequal distribution of wealth as well as health and education services. All the above is a reason sufficient enough to require a new approach to solving the observed problems. This paper will attempt to answer the question what is a new paradigm that is exceedingly needed. Explaining the determinants of sustainability and the reasons necessary for the formation of the new concept will provide the basis for better understanding of the problems arising from the need of mind - shifting towards a solution of problems and debates that follow.*

**Keywords:** *sustainable development, sustainability, consumption, growth limits*

### **Introduction**

Everyday we are able to hear that something is or is not *sustainable*. It is the term that has seen expansion at the turn of the century, as it was the case with the term globalization previously. To understand the term, and the developments that preceded it and introduced it, we will deal with the determinants of sustainability first. In other words, we will examine the sources of the problems we face everyday.

No matter what part of the Planet we inhabit, we are faced with some of the most pressing problems of today. The burning issues of developing countries are that of poverty and health predominantly: HIV virus, malaria and other sanitary problems. For developing countries preoccupying problems are inequality of

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income distribution or education and health care, while developed countries are focusing their effort on combating environmental problems.

The stated above does not mean that developed countries are not facing problems of unequal income distribution or poverty in some parts of their territory. Nevertheless, the accentuated problem of developed countries belongs to a group of nature conservation issues. Likewise, developing and underdeveloped countries encompass problems of nature preservation, but do not assign priority to them as they are facing thousands of people dying from preventable diseases at the same time.

### **Problems at Present – Determinants of Sustainability**

In order to grasp all determinants of sustainability, it is necessary to explain current material flow of goods consisting of five explicit phases: extraction, production, distribution, consumption and disposal. Each listed phase carries the specific pressure on the environment and people and therefore must be closely observed.

Some authors reduce the number of determinants of sustainability to: consumption, production and distribution (Rogers et al. 2008), while here more comprehensive coverage of all the negative human impact on environment will take place, incorporating all five phases of material flow.

Material flow in progress presents a linear process that by its nature can not be sustained in the world with limited resources. Overstrainness of the current system is increasingly apparent and there is the necessity for change, if not a revolution.

*Extraction*, the first phase, corresponds to obtaining natural resources and depletion of nature. The depletion of natural resources is not a novel, however, the rate of obliteration of the Earth is. The research has shown that the needs of the 1960s required the use of almost the half of the capacities, with the demands rising in the 1960s to 144% of available capacity (Twentyten 2010).

Subsequent to extraction, natural resources are transferred to *production*. Frequently, natural resources are mixed with toxins through energy in production that furthermore crumbles health not only of employees, but beyond. Materials and processes that are used in developing or developed countries result in immense amounts of toxic emissions both in solid, liquid or gas state. Additionally, one must draw attention to the consequences of inefficient production that irrationally wastes resources and is potentially detrimental to the environment. The harmful effect could be attributed to: inefficient enduring packaging or the packaging that is more expensive than the product itself.

Furthermore, an exceedingly important issue is the inability to include the negative externalities in the production costs. Externalities represent an example of market mechanism inefficiencies and pose a greater problem in developing

countries as the natural resources are considered to be free goods, although they are certainly not. The problem is augmented by the fact that the poor are facing greater transactional costs than the rich. All the stated problems represent an extensive ground of improving living conditions in the 21<sup>st</sup> century.

The next phase of material flow is *distribution*. The purpose is to shorten the time between production and consumption. Although activities and actors in this phase are not directly responsible for the adverse effects that may occur or are occurring it must be emphasized that the leading problem in this phase are the consequences of globalization. The reallocation of production in underdeveloped parts, exploiting children in production, and utilizing natural resources of third world countries accumulate in this phase of material flow as the only goal is to reduce time and flow with the lowest possible prices, i.e. the lowest possible costs.

Then, the phase of *production* is reached, representing the most important phase of material flow. The citizens of the United States are considered as the major culprits of the current situation and unstoppable consumerism. Consumerism as the only way out of the postwar crisis was not only propagated but also selected as one of the objectives of national policy. Victor Lebow, in his work titled *Price Competition* concludes: “Our enormously productive economy... demands that we make consumption our way of life that we convert the buying and use of goods into rituals, that we seek our spiritual satisfaction, our ego satisfaction, in consumption... We need things consumed, burned up, replaced and discarded at an ever-accelerating rate” (LeBow 1955). Economic advisors in the Eisenhower’s government put forward the view that the highest American goal is to produce more consumer goods (Suzuki 2009).

Considering the consumption, it is necessary to pay attention not only to the amount of resources, but also to the way they are used. At least five reasons could be identified as to why it is important to understand the means of natural resource consumption. First, economic efficiency alone will never lead to sustainability. The reason for this is the fact that no matter whether the eco-efficiency has been reached the appetite for natural resources of the current generation will remain insatiable. Consumption must be reduced and one way to do so is introduction of a strong normative environment regulation strengthening the mechanisms that reflect the degree of degradation caused by the consumption of the current generation. Moreover, consumption is the basis for understanding the policy challenges, as the demand side is the motivator and the cause of political measures. Let’s take for the example irrigation subsidy in order to provide help to deprived farmers after a short time the inability of policy will be visible in the form of even greater expenditure of scarce resources. The problem is a vicious circle created at the demand side. The purpose of subsidies is to reduce production costs. However, it can not be strictly applied only to poor people as the more affluent are attracted to the benefits alike. Due to this demand growth, the scarce resources,

such as water and energy, are used inefficiently and the government fails in its attempt to increase production efficiency or reduce inequality.

Exploring consumption habits insight into what is spent is gained as well as the knowledge whether basic needs are met. Furthermore, the conclusion who is predominantly contributing to pollution or resource depletion could be drawn from the consumption patterns.

The same analysis can lead to a conclusion challenging the relation between economic growth, meeting the basic needs and human aspirations. Two countries with the same GDP (gross domestic product) can have different consumption patterns and therefore have different percentage of population below poverty line. In a country with the high percentage of population below the poverty line the use of resources is obviously intended to meet the needs of small number of people with a tendency of increased personal wellbeing. While in a country with the small percentage of population below the poverty line the natural resources are used to satisfy the needs of a large number of people and which enables the increase in general wellbeing, as opposed to the previous example.

Additional issues that are emitted from the consumption are deliberate activities that lead to perceived obsolescence of products. Fashion trends and standard changes or updating parts of products are increasing frequency of shopping (Huh, Ackerman 2009). Planned product obsolescence as a legitimate selling strategy presents skilful control of product efficiency and accurate calculation of its life. In some countries such as the Great Britain, the planned obsolescence is considered to be a violation of consumer rights, although it is used all over the world.

To better understand the influence of consumption changes on the environment the *IPAT* equation will be used that has gained in importance in the past several decades. The sole purpose of the *IPAT* is to present the multiplicative effect of the factors on the environment. *IPAT* or Erlich's<sup>2</sup> equation (Rogers et al. 2008, 31) indicates multiplicative impact of **P** – population, **A** – affluence measured by consumption per capita, **T** – technology and overall **I** – impact on the environment. The main objective of the equation was to condemn any mono-causal explanation of environment impacts. However, if the impact was presented as in the equation, as a result of simultaneous influence of: population, wealth and technology

$$I = PAT \quad (1)$$

we can conclude that measuring the change of the variables is possible if

$$(1 + \Delta I/I) = (P + \Delta P/P) \times (A + \Delta A/A) \times (T + \Delta T/T) \quad (2)$$

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<sup>2</sup> American scientist Paul Erlich committed to environment conservation in 1971 suggested this equation to easily grasp factors that influence environment.



and dividing by individual identities

$$(1 + \Delta I/I) = (1.0 + \Delta P/P) \times (1.0 + \Delta A/A) \times (1.0 + \Delta T/T) \quad (3)$$

where every term  $\Delta I/I$  is the percentage point change of the factor of influence, population, affluence or technology.

For the problems explained by multiplicative relation effects not a single factor could be undermined or considered irrelevant. The consequence of the increase in a certain factor is proportionally augmented to the growth rate of other factors.

The author has applied the analysis to the study of growing population impact in the postwar US. As an example a lead emission into the atmosphere was selected. Population increased 41% in the chosen period. As a measure of affluence or consumption per capita the number of miles traveled was chosen and this number doubled in the study period. And for the technology the emissions of lead per vehicle per mile was taken into account, increasing 83%. Incorporating all changes determined in a given period the equation looks like

$$(1 + \Delta I/I) = (1.0 + 0.41) \times (1.0 + 1.0) \times (1.0 + 0.83) = 5.16$$

which leads to the conclusion that the total influence of combined action of all the factors has increased effect on environment for is 416% ( $5.16 - 1 = 4.16 \rightarrow 4.16 \times 100 = 416\%$ ), of which only 1/10 is explained by population growth of 41%.

Although very easy to implement *IPAT* analysis is not sufficient for more profound consequential explanation. The equation does not explain mutual influence of the factors nor the factors that influence chosen variables. Some of those could be: social development, institutional influence in the form of policy, culture, inequality and so forth.

The significance of the equation is expressed primarily in the fact that by measuring the influence of change in quality and quantity of consumption and the advancement of technology the insight into more comprehensive understanding of consumption influence on the environment is provided. Therefore, granting enhanced understanding of sustainability and increasing possibility of achieving sustainable development.

Increasing number of present-day technological innovation is undeniable along with shorter implementation time. Information flow is more rapid and the formal restrictions on the exchange or technology transfer are fewer. Rapid technology changes lead to decreasing consumption.

The last phase in material flow of resources is *disposal* that presents proper handling of waste at the specified locations. Besides increased quantity of waste that is presented by rising rates the problem is incompetent and negligent disposal

of waste. Additionally, burning waste release harmful gases into the atmosphere. One of the most toxic gases is dioxin<sup>3</sup> that is only behind plutonium regarding the level of toxicity to humans. Unfortunately dioxin is human made gas and is all around us.

### Limits to the Growth

The issue that brings together scientists and general public alike is that economic growth has reached its limits. In the 1980s, it became apparent to researchers and public that the problems of: poverty, income inequality, environment degradation and resource shortages are increasing. The most influential publication that has identified stated problems and seceded to quantify them was *Limits to Growth* from 1972 by Meadows that provoked both astonishment and admiration (Meadows et al. 1972), Astonishment was due to the attitude that every growth is a good growth and the critics to the Limits followed shortly (Cole et al. 1973). As the message published in the publication faded and the reality proved the closeness of limits the term sustainability gain the importance<sup>4</sup> making a distinction to the limits.

Taken from agriculture and forestry, where it was used for decades, the term sustainability takes on a general and very broad meaning allowing it an easy application in all areas. Regardless of the accuracy or consistency *sustainability* is redefined with such flexibility to match a series of desires and benefits (Bartlett 2006).

The importance of the term is undeniable since it permeates all spheres of human activity and in this section of the paper more attention will be paid to perceived limits to the growth and the direct causes for the unavoidable urge for sustainable development.

Bearing in mind the simultaneous need for: climate stabilization, population management, reduction or eradication of poverty and restoring the natural system, clearly indicates that our civilization in the 21<sup>st</sup> century faces unprecedented challenges. Facing any of these challenges individually is an extremely demanding endeavor with uncertain outcome, and the urgency and importance of the situation in which we led ourselves demands effective solution taking into consideration the interdependence of all these problems.

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<sup>3</sup> It is released during the process of plastic burning (PVC plastics) and is most abundant in beef, as calves are mostly exposed to dioxin that is all around us. What is striking is the ease with which it is transmitted through placenta to unborn babies and can have damage on genetic structure. Besides, it can accumulate in breast milk that can further endanger baby. That not only women are at risk but men also was confirmed by the research showing this poison influencing and causing testicular cancer (35).

<sup>4</sup> The overall presence of the term is supported by the fact that the browser after entering the term “sustainability” in English shows 34.3 billion hits and the same browser finds 94.300 matches after term sustainability is searched in Serbian. (search performed in July 2010 in the Google search engine)

### **Sustainable Development– Multiple Meanings Yet Unambiguous Necessity**

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The issue of sustainability of the economy has become more contemporary and multifaceted by numerous problems that have surfaced. Environmental pollution, destruction and reduction of biodiversity as environmental issues occupied the most developed countries. However, social issues such as increased inequality, cultural issues and basic education and health are seen as a burden and have emphasized the economic problems of developing countries as well as undeveloped such as unemployment, child labour, poverty etc.

The lack of oil, food and a growing negative influence of climate change increase the pressure on national policies. An increasing number of countries that fail to deal with these problems at a local – national level weaken the system of international cooperation that has emerged after the Second World War with the aim of mutual assistance and has represented the foundation of world's economic progress. The collapse of the system followed opting to put national interest ahead of collective, international that is global interest by many countries<sup>5</sup>.

The inability of national governments to independently deal with extremely complex issues of their future survival and creation of sound progress foundations require collective action and creation of supra-national alliances or agencies with the aim of better perceptive the problem that has become global.

The first organization dedicated to addressing the issues of sustainable development was the Club of Rome. It was founded in 1968 as an international non-governmental organization dedicated to studying the “*world problematique*” or world issues. The term issues includes: political, social, cultural, environmental and technological issues in global, multidisciplinary and long-term perspective. The club brings together scientists, researchers, business people and heads of states from all over the world, including the former Soviet President Mikhail Gorbachev and Rigoberta Manchu Tum<sup>6</sup> - a 1992 Nobel Peace Prize Winner.

Over the years, the Club of Rome published numerous reports, including the Limits to Growth, first published in 1972 introducing environmental constraints to economic and demographic growth into academic and popular debates.

The report discloses results of mathematical simulations of the MIT scientists conducted on demographic and economical growth in correlation with natural resources exploitation. The report presents forecasts until 2100. The MIT model was specifically designed to investigate five major trends of global concern:

- rapid global industrialization;

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<sup>5</sup> In the fear of the lack of oil USA converted large arable land areas from grain production into biomass fuel production regardless of possible and certain food shortage on a global level or price variations. Recently, cereal export countries closed their borders in order to calm domestic prices and to avoid unnecessary growth, creating both a food shortage on global scale and bringing food importing countries in a less favorable position.

<sup>6</sup> In recognition for her work on social justice and ethno-cultural reconciliation based on respect for indigenous peoples.

- rapid growth of world population;
- widespread malnutrition caused by poverty;
- non-renewable resource dependency and their increased usage;
- environmental degradation.

The main conclusion of the report is that if the trend of world population growth and industrialization is to remain unchanged the limits of growth based on the model will be reached in coming hundred years (about 2072) that would result in a sudden and uncontrollable decline in population and industrial capacity to meet our needs (Meadows et al. 1972).

The proposed solution is the replacement of growth with stabilization of economic activity and demographic growth. MIT researchers presented development model that does not focus on progress defined as growth that is a drive for endless accumulation in a world of limited resources, but progress as facilitator of improved welfare of people while respecting ecological balance necessary to sustain life at the same time.

With this report, the authors advocate deep, proactive social innovations through technological, cultural and institutional changes in order to avoid increase of ecological footprint above the carrying capacity of the Earth. Although the global challenge was presented in a grave tone it was optimistic at the same time noting the possibility of overcoming problem if the action is taken immediately (Meadows et al. 2009).

At the first United Nations World Conference on the Human Environment, held in Stockholm 1972, for the first time, at a high international level, the dangers threatening our planet from environmental pollution on a global scale were pointed out.

Global intergovernmental action begun with the United Nations Conference on Environment in Stockholm that resulted in Stockholm Declaration and Action Plan with over hundred recommendations for environment and environmental management, measures of support that led to the formation of United Nations Environment Programme (UNEP).

The global forum of NGOs, parallel to the conference, emphasized the relation between environment and human values with the slogan “Only One Earth”. Environmental debates focused on the report of the Club of Rome entitled *Limits to Growth* and special attention was given to eco-development (term that was predecessor for now generally more accepted term sustainable development). Primary concerns were finding solutions to the issues of oil pollution and heavy metals, nuclear wars and state of marine mammals. One of the main results of Stockholm conference was establishment of ministries for environment in most governments, although mostly were marginalized compared to the real centers of power and poorly equipped leaving them with little real influence on economic issues and development.

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### **Sustainable Development– Multiple Meanings Yet Unambiguous Necessity**

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Internationally, there were important developments in the field of environmental protection through the conventions, both at the global and local level, and a range of programs. Twenty years later it was obvious that efforts for higher integration of environmental concerns into the development process were needed. Rapid tropical forest withdrawal led to a growing concern for biodiversity preservation; worldwide droughts draw the attention to desertification; ozone layer depletion in the stratosphere above the Antarctic signaled the global impact of human induced pollution, and increased concentration of carbon dioxide in the atmosphere further proved harmful effect of human activities to the global warming and climate change. The human population has experienced explosion that translated to consumption levels in the richest countries. Environment continues to be degraded. Brundtland Commission in 1987 called for development that is sustainable in its essence.

The first attempt of international cooperation was the World Commission on Environment and Development (WCED) known also as Brundtland Commission, based on the 1983 meeting under auspices of the United Nations published the report *Our Common Future* in 1987. The report indicates harmful effects of economic growth policies that do not take into account the Earth's regenerative need onto people and planet. The Commission defined sustainable development as development that meets the needs of present without compromising the ability of future generations to meet their own needs.

#### **Sustainable Development – Acknowledged Term, However Not Distinctively Defined**

Defining sustainability, according to Kula, is one of the favorite ways of spending free time in the academic community (Kula 2001, 147). The fact is that there are numerous definitions of the term and it is likely that number of definitions equals the number of the groups that are trying to refine the concept of sustainability.

Attempts to define term and concept<sup>7</sup> more seriously began in the late 1980s and till the present day several broadly used definitions have been generated. Trying to explain concept of sustainability, it is easy to conclude it refers to something in order to preserve, protect or manage it.

As for the concept, the most quoted definition was coined by WCED in the report *Our Common Future*. There it is stated: "*Humanity has the ability to make development sustainable – to ensure that meets the needs of the present without compromising the ability of future generations to meet their own needs*". In other

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<sup>7</sup> Assuming that the term is semantic interpretation of the origin of the word, and concept is wider understanding of the ideas, general direction and aspiration without time limits. The difference is similar to one between theme and idea.

words, sustainable development is seen as a harmonious relationship between economy and ecology to preserve natural resources and planet for the future generations. Sustainable development is a concept based on a desire to create better world and to balance social, economic and environmental factors.

Although the definition emphasizes long-term aspirations and ethical aspects of concept, it does not however provide clear indication of the necessity of establishing a sustainable environment, a society based on fairness and equality or healthy economy. This is why more precise definition is needed that will include this important dimension. Danphy formulates “Sustainable development includes types of economic and social development that protect and improve the natural environment and social equity” (Danphy et al. 2000, 23). From this definition it is clear that sustainable development is consider to be a process of continual improvement and flexibility.

Sustainability is a research field abundant with debates. Thus, it can be debated whether sustainability should be regarded as a journey or a destination and this dilemma dates back to 1996 when in Great Britain a round table articulated that sustainability is a process and should be regarded as a journey not a destination. In other words, the common goal is to move at the same direction of continuous improvement.

According to Silverman the term sustainability is employed so to replace the term growth with less articulate and less familiar term (Silverman 2009). In addition to Silverman, Bartlett has raised an interesting short calculation about sustainability. Starting from the essence of the meaning of the word sustainable it presents “duration for an indefinite time” and taking in the consideration that growth at a constant rate leads to large numbers in modest time period, a conclusion could be drawn that it represents “unlimited increase”. Furthermore, the quantity that is increasing tending towards infinity, faced with finite resources, ecosystems and human environment, bring us to the crucial truth: “when applied to material things the term sustainable development is an oxymoron” (Barlett 2006, 18). What the term could be applied to is immaterial origin, such as inflation. Prior to Silverman Daly pointed out the problem provoked by the report *Our Common Future* (Daly 1994) stating that the essence of science is to gather impossibility theorems in order to avoid wasting resources investing in what is possible. Even more so, the economy would have to deal with such an impossibility theorem presented in the report, as it is impossible for the economy to find the way out of poverty and environment degradation with plain capacity increase, i.e. growth.

Economists, denying the existence of bio-physical boundaries acknowledged in *Limits to Growth* based on the model of technological advancement contrary to the neoclassical Solow model from 1973 that focuses labour and capital inputs, believe that the prices and market mechanism are sufficient to take into account the scarcity and provide necessary resource productivity “more or less exponentially”. While the fact that capacity of the land

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### **Sustainable Development– Multiple Meanings Yet Unambiguous Necessity**

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for disposal is not subject to price mechanism it is characterized as an error and taxation and regulation are suggested.

Even though occurrence of clique of a concept does not eliminate the existence of opponents it is important to study the arguments of both sides, especially when it comes to making decisions on higher levels with far-reaching consequences.

Genuine concern for our future, of politicians and general public alike, speeded up the process of term acceptance and has propagated the concept. The confusion and replacement of the term sustainability with prefix green<sup>8</sup> is frequent with the sole aim of associating the economic activity with the caring for the environment.

### **Sustainability Debate**

As already indicated the main difference in the perception of sustainability lies in the source of the concept. Depending on whether the school is derived from natural or social sciences the perception of importance differs. Differences are arising from irreconcilable motives: on the one hand, the economist tend to maximize utility, profit and growth, while on the other hand, environmentalist seek to limit economic growth or even argue for the negative growth trying to preserve environment.

Neo-liberal economists advocate a rejection of intervention, suggesting almost automatic improvement of environmental quality as a consequence of economic growth based on Environmental Kuznets' Curve (EKC). It is assumed, and in the cases of some pollutants demonstrated, that economic growth has the same effect on the environment as it does on the inequality of income distribution (concave curve). Research has shown that economic growth causes more pollution and degradation of environment. This conclusion should not be valid for all pollutants alike or environment in general (Rao 2000, 96-100). The original Kuznets' curve is concave function representing the ratio of inequality of income distribution and economic growth. Such a relationship of inequality and economic growth is explained by the fact that in earlier development phases, when physical capital is the main driver of growth inequality stimulates growth by allocating resources to those who save and invest the most. On the other hand, in developed economies, the growth is driven with increase in human capital as opposed to physical and inequality slows growth by lowering education standards because the poorer can not afford education. The axes are represented by inequality, measured by Gini coefficient and economic growth measured with per capita income. The conclusion, drawn in 1955, is that inequality must be increased in order to be decreased (Kuznets 1995).

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<sup>8</sup> Coverage applies to all areas of human activity and is most often used in: green design, green architecture, green manufacturing, green building etc.

All directions of economics are trying to operationalize its philosophy, moving from the theoretical principles to some form of quantification. Economists tend to put monetary value on environmental issues justified by scarcity of natural resources. On the other hand, environmentalists discard monetization of environment and advocate for physical (non economic) indicators in an attempt to detect the pressure of economic activity on ecosystems.

The consequence of previously assumed is the difference in approaches to sustainability: economic activity and growth and environment impact. Economics provides a fundamental concept of capital maintenance as a necessary condition for preserving future production, income and consumption. The improvement seems to be only in theory and accounting for including “natural” in terms of capital. Environmentalists have different solution. Provided economic growth is the main culprit and causes distortion of environmental environment, human actions are considered the treat to carrying capacity of nature.

Considering the differences irreconcilable, it is possible to detect a common ground. This is the focus of human activity (economic growth) on environment. Extending the observation to the political, social, cultural and institutional dimension a possibility to develop a new stream called sustainable development is opened.

Although the idea of sustainability dates back to the 18<sup>th</sup> century, it has been used only in the certain fields of human activity (forestry, agriculture, livestock and fishing) and it was only a matter of time before it spread to the whole area of economic activity. The concept of linear material flow: using resources from the soil turning them into products, distribute them to the consumers and then leaving the leftovers in the land fields, oceans or air is only a temporary state, because this behaviour can not be continued indefinitely (Boulding, 1978). Insisting and persisting in such behaviour will leave consequences to future generations.

The concern for the future increases with enhancement of our power to change and adapt environment to our needs and desires. Sir Frances Bacon in *The Advancement of Learning* in 1622 said “Do not think about the future. One must follow the things that are just in present and future should be left to the God’s will”. At that time, of course, society has not been faced with present day problems: the accumulation of toxic nuclear waste, the destruction of ozone layer, acid rain, atmospheric pollution, uncontrolled population growth and the rapid depletion of natural resources. The debate on sustainable development is essentially a concern for the future generations that has gained an importance mainly due to environmental problems that are unprecedented in human history.

In the past two decades, *post-development theory* has gained importance, resting on the belief that induced development that defers from immanent development, which would otherwise have occurred, is the product of west



hegemony. Development is seen as the result of two developmental forms that are conducted in parallel: the immanent development as a base for change in society and induced as a planned intervention. Under the immanent development, or what people normally do, a broadly comprehensive process of change is considered driven by: progress of science, medicine, art, communication, leadership etc. While the induced or interventionist development is focused and controlled development in which government and nongovernmental organizations implement projects and programs to help underdeveloped (Cowen, Shenton 1998).

Stipulating start from generally accepted definition of sustainable development published in the report *Our Common Future*, by which it is necessary to ensure development that meets the needs of present without compromising the ability of future generations to meet their needs, it is clear that this definition intertwines both forms of development. It is undisputed that immanent development is being assisted with green groups. On the other hand, identified as a goal to strive to, induced development is financed by numerous agencies. Immanent development is continuous process and lasts as long as mankind, but what is regarded as modern development is mainly the result of years following the Second World War.

Frequently cited speech President Truman of USA held in 1949 focuses primary objectives of its policy, among other stating the necessity of enabling the benefits and scientific accomplishments to the underdeveloped as the USA is a leading country concerning industrial and scientific development. Together with other industrialized countries they should invest where investment is needed. In parallel with this announcement of modernizing intentions, fairly strong international institutions were established such as the International Bank for Reconstruction and Development and the International Monetary Fund (IBRD and IMF) (Kiely, Marfleet 1998).

Immanent development, as a process rich in complex mix of influences, was even more strengthened by development of global media. Although considered organic or intrinsic, it must be admitted it is subject of influence of powerful individuals and groups who can determine path of development. In addition to previously said, immanent development does not have specific destination point. It is a constant process of change (Morse 2008, 342). On the other hand, induced development suffered a lot of criticism mainly because it is based on who is and who is not developed (Schuurman, 2000). The concept is established on the knowledge of those currently in power in the developed world and is applied to developing countries and thus, it is understandable why it is seen as “an expression of ideological expansion of capitalism after the Second World War” (Escobar 1992, 413). Arrogant hegemony has produced anti-thesis in the form of post-development movement, or by some authors anti-development movement (Simon 2006).

Followers of the post-development theory argue that what is being propagated as the international development since the Second World War led by the rich nations to make world reminiscent of their image, could be regarded as reconfiguration of colonialism (Morse 2008). Different authors have their own view of the degree and form, but have in common perceived inequality and the fact that current system is unable to realize what was predicted, with the example of Africa which is cited most commonly.

Although not against providing help to prevent disease and poverty, the imperative is to differentiate from the hegemony of developed world, which is implemented through the set of international agencies. The belief is that induced development created a tautology: the developed countries create definitions and although the instrumentalization can evolve and be flexible, the fact is that strategic level of induced development is out of the reach for “developing” world. Thus the problem of reaching predefined goals is not the only one, but the goals themselves.

According to the post-development theory, sustainable development is no different, even worse than normal development because much of the resulting pollution and environment degradation emerged as a product of consumerism and industrialization of western countries. Development theory, according to them, is the result of a joint venture of academia and public ideology. Academic-political nature of development is politically oriented, problem-driven and therefore, effective only in the context of the relationship with pre-existing social theory. The argument is that development is never just, has never worked and now it obviously failed. One of the pioneers of post-development theory Sachs says that “the idea of development stands like a ruin in the intellectual landscape” or “it is time to remove this mental structure”.

Kiely sees post-development theory as a last resort of criticism that is always present in the writings and rethinking of development. Development is still essentially a matter of choice with losers and winners, dilemmas and destructive factors, but with creative possibilities as well (Kieley 2007). Most critics of post-development theory consider them as being destructive and not offering any alternative.

### **Concluding remarks**

Although the term sustainable development is a relatively new concept and approach to problem solving, it is not a novelty. Attitude towards resources and available goods differs depending on the political, cultural, ideological, economical and other factors that can affect human activities and have influence on environment, natural and social alike.

A rational approach to nature and available goods is in fact sustainable development. The use of resources in accordance with their availability and caring for the future generations should be an imperative to responsible behaviour.

### **Sustainable Development– Multiple Meanings Yet Unambiguous Necessity**

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However, we are witnessing the irresponsibility and irrational behaviour of people who put their own interest before the common one, depleting material base we all depend on treating nature as worthless “free” good. The problem originates from the inability to include the value of nature in price mechanism that would enable usage to be presented in cost terms. Even if there was possibility to put a price on the environment there is a possibility of externalizing those cost to the society. As the exploitation of natural resources is not seen in monetary values it is involuntarily considered as non-existent.

The new paradigm in the form of sustainable development concept is trying to overcome all obstacles that brought us to the present situation. Regardless of whether the country is developed or developing each can contribute to overall improvement. Globalization of the problem could be a condition sufficient enough for more unite approach to solving problems and thus accelerate reaching the solution. Taking *IPAT* concept into account, one of the solutions could be a suggestion for developed countries to control consumption and with it have decisive impact on environment. Developing countries could make greater contribution in the control and application of advanced technologies, while the disadvantaged and underdeveloped countries may have the greatest impact in the population control policies.

Instead of a conclusion one could say that the precise definition of sustainability is not in fact so important, as it is urgent to start dealing with problems in systematic manner.

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### **ODRŽIVI RAZVOJ – VIŠESTRUKO RAZUMEVANJE POJMA I NEDVOSMISLENA POTREBA ZA KONCEPTOM**

**Rezime:** Svedoci smo brojnih problema koji nas okružuju, a sve češće poprimaju globalno obličje: resursa je sve manje, a potrebe su sve veće. Problemi rastuće stope uvećanja broja stanovnika, nejednake raspodele kako bogatstva, tako i usluga zdravstva i školstva. Sve nabrojano predstavlja dovoljan razlog da se zahteva nov pristup rešavanju poznatih problema. Ovaj rad pokušaće da odgovori na pitanje koja je to nova paradigma koja je nasušno potrebna. Obrazlažući determinante održivosti i razloge neophodne za formiranje novog koncepta postavlja se osnova za bolje razumevanje problema koji proističu iz nasušne potrebe zaokreta u pravcu rešenja problema i debatama koje slede.

**Ključne reči:** održivi razvoj, održivost, potrošnja, granice rasta



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## FORMULATING A COMPANY'S RESEARCH AND DEVELOPMENT STRATEGY WITH BALANCED SCORECARD

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**Vladimir Dženopoljac, PhD\***

**Abstract:** *The paper deals with research and development (R&D) strategy formulation by the Balanced Scorecard framework application. Bearing in mind the nature of R&D activities, the ability to adequately formulate R&D strategy becomes more significant. The paper starts with in-depth analysis of the Balanced Scorecard (BSC) conceptual framework. The increasing importance of intangible assets is especially emphasized in terms of its impact on BSC origin and on its possibilities to be used in the phase of strategy formulation. Afterwards, the role of R&D in business strategy will be analyzed. The market conditions, the competitive position of a business and the state of technology determine the role of R&D within business strategy. At the end of the paper, the application of BSC on R&D strategy formulation will be discussed. The focus is on the impact of R&D on value creation process having the strategy as a core planning decision.*

**Keywords:** *Balanced scorecard, R&D, intangible assets, business strategy*

### Introduction

There are not so many questions in the theory of economy and business economy gathering that much of unanimous opinions as the question of the importance of R&D in social and economic development. R&D is one of the main resources of innovation and a key force in creation of changes in an organization. It is not possible to achieve competitive advantage without adding new values to products and services. Introduction and modification of new products, processes or services, which come as result of R&D, satisfies the existing needs of a market, anticipates the future needs or creates the new ones. Not only is R&D significant in

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high-tech sectors, but also in traditional (e.g. car industry, architecture, traffic, etc.). It is estimated that the companies worldwide invested 420 billion euros in R&D sector in 2009 (Wolf 2010, 2). Various activities determine the process of R&D and can be classified in different ways. The spectrum of R&D activities extends from the boost of knowledge to the implementation of the new or improved products in the market. The reason for confusions and misunderstanding lies in the fact that there is still no consensus over definition of each of activities. OECD's classification (Frascati Manual 2002, 2) on fundamental research, applied research and experimental development provides distinction between basic types of R&D activities.

The competence in the field of R&D and its strategic meaning is related to intangible assets, which define the potential for growth of a company, and generates the largest part of increased value. The value creation process should be addressed from the point of the role of a strategy in a management process. In addition, the value creation process itself should be analyzed from the strategy's point of view. In other words, in order to have R&D create competitive advantage it is necessary to have a strategy. Kaplan and Norton (Kaplan, Norton 2001, 75) believe that a strategy is a group of hypotheses. Fundamental problem that companies are meeting with in turbulent and complex environment could be formulated as: which strategy enables a company to succeed in a changing environment? Alternatively, initial premise is that a modern company should be led with a strategy. On the way from a current to desired position, it is necessary to establish cause-effect relationships. These relationships, which in fact represent hypotheses, have to be explicitly defined in the process of strategy formulation and implementation. These should be easily tested and modified/adjusted according to changing demands of the environment. The same authors (Kaplan, Norton 1992; Kaplan, Norton, 1996, 75-85) developed the Balanced Scorecard concept as a tool to formulate and implement strategies. The key motivator to develop the Balanced Scorecard concept lied in growing importance of intangible assets in the value creation process. The objective of the paper is to analyze possibilities to use the Balanced Scorecard in R&D strategy formulation.

### **Balanced Scorecard – Origins, Postulates and Criticisms**

Balanced Scorecard was created by R. Kaplan and D. Norton in the early 1990s of the 20<sup>th</sup> century as the result of one-year research study of the business management in twelve companies. According to Harvard Business Review, the BSC represents the most significant managing tool developed in eighty years. Empirical research (Kaplan, Norton 2001; Neely, Kennerley, Martinez 2004; Pont, Shaw 2005) showed that the concept is being worldwide used by a number of companies (in Great Britain 57%, USA 46%, Germany and Austria 26%, and 40% of companies from the Fortune 1000 List). The BSC is being successfully used in



### **Formulating a Company's Research and Development Strategy with Balanced Scorecard**

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public and in non-profit sector, and especially in health and educational enterprises. Initially, the concept was used as a performance measurement tool, only to later evolve into the strategic management system and communication tool (Kaplan, Norton 1996, 22-23).

The critical key success factor in the information age is the ability to manage intangible assets, i.e. intangible assets are one of the most important factors in value creation. Intangible assets are made of “invisible” resources. Different displays of intangible assets, such as knowledge, skills, talent and enthusiasm of employees, patents, expertise, software, databases, politeness with customers, brand distinction, unique organizational design and business culture, could be all categorized as human, structural, and relational capital. Human resources are “the pillar” of human capital and represent the most important component of intangible asset (Janošević 2009, 408). The very own character and potency of intangible asset requires a new success measurement. The information provided by conventional financial reports is often not timely and entirely relevant to understand the influences of non-material resources on future value creation. High ratio between the market and book value of a company points to high expectations for the effects generated by intangible assets in the future. Later researches show that the invisible assets in successful companies make up between 75-85% of total market value of those companies. Investment in intangible assets is basic indicator of a company's vitality and key indicator of its competitiveness.

Intangible asset rarely make direct impact on financial results, while future effects of investment in intangible asset are uncertain. Therefore, it is difficult to measure the intangible asset because the value is indirectly created. It is also the reason it is hard to control and manage the intangible asset. Quality human capital, different skills, talents and knowledge make direct impact on other forms of tangible and intangible assets. Contrary to tangible assets whose value decreases in time, the intangible assets become more valuable the more they are used. In the same manner, it is easy to copy physical resources whereas it is more difficult to play with competency, which comes as result of invisible resources.

Value created with intangible asset is contextual. The greatest value is created when all components of intangible asset are coordinated along with a strategy. Consequently, intangible asset has to be linked to strategy in order to create values. Relationship between the intangible asset and the strategy has to be of an interactive character.

Conventional financial reporting and performance measurement deduced from it does not correspond to the character of contemporary business environment in which major part of created values come from intangible assets. Namely, financial performance measures do not provide real insight in a business success, i.e. they do not have indicators useful enough to measure future performances. This limit is especially important when we understand the importance of success measured in investments. Investors insist on creating and implementing new

performance and success measurement systems based not only on financial measures but also on non-financial, which are the motivators for future financial performances. On the other hand, measuring performances and awarding managers according to the performances are the two related questions. Namely, compensation system and managers' motivation have to stem from performance measurement, whereas financial measurement as a foundation is of limited span. In addition, it is not possible to measure business performance only through a single dimension or synthesized guideline. Different non-financial performance measurements, such as customers' satisfaction, efficiency of internal business processes, innovation, knowledge and skills of employees cover different dimensions or aspects in a business success.

Balanced Scorecard provides a broader view into business opportunities and strategic goals, and the view from different perspectives encompassing not only financial but also non-financial success indicators. The concept is focused on linking among different processes, decisions and results from three different time dimensions: "yesterday", "today" and "tomorrow". It is made for different hierarchy levels (from corporation level and separated organizational units to individuals) and business functions. In the same manner, the concept provides balance between external and internal organization constituents on the one hand, and between lag indicators and lead indicators of performances on the other hand. BSC links critical success factors with key performance indicators, i.e. critical success factors are translated into measurable objectives. Shareholders and bidders represent external constituents of an organization, and internal business processes and employees are the internal constituents.

The objectives are not adjusted only from different perspectives but also from the view of present and future performances. Lag indicators point to the results that were achieved in the past. Conventional financial performance measurements represent typical lag indicators. Likewise, market share, sale and satisfaction of employees are measures of lag performances. Leading indicators are prompters of future performances and they lead to realization of lag indicator. They indicate possibilities to create values through various investments, various forms of intangible assets in the first place. Typical guiding measures of performance are the time spent in communication with customers, days off from work, investment in education. According to the creators of the concept those companies wishing to improve managing with intangible assets have to integrate intangible assets measures in their management system. Leading indicators and related measures of future performances should be in line with lag indicators and success measurement resulting from previous actions. For example, a timely postal delivery is leading indicator for customer satisfaction performance measurement.

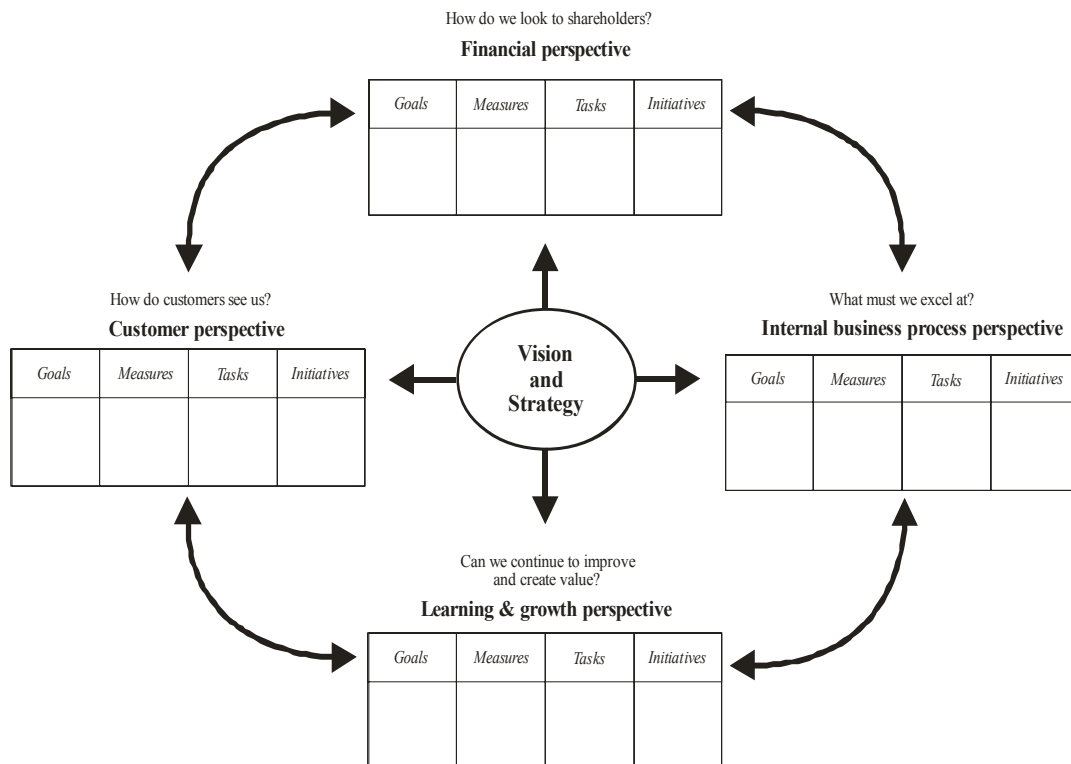
Balanced Scorecard concept has been transformed from improved system for performance measurement into the core of management system focused on strategy implementation. Therefore, this concept represents the system of strategic

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management. The concept translates vision and strategy into the measurable targets. The BSC targets are defined by the vision and strategy viewed from the financial perspective, customer perspective, internal business process perspective, and learning and growth perspective (Figure 1). Conceptual foundation of BSC lies in the answers to the four questions:

- How do we treat our shareholders (financial perspective)?
- How do we appear to our customers (customer perspective)?
- How do we handle the processes in order to achieve success (internal business process perspective)?
- How to permanently change and improve (learning and growth perspective)?

**Figure 1: Balanced Scorecard (Kaplan, Norton 1992, 76)**



Financial perspective is related to growth, profitability and risk assessment. When using financial strategy companies have two prompters at their disposal. The first is income growth and the other is productivity growth. As a rule, profitability growth strategy provides sooner results than the income growth strategy. Financial perspective describes visible strategy results with traditional

bookkeeping determinants related to income, profitability and asset usage. These conventional financial performance measures do not communicate with drivers of future performances. Profitability, liquidity, efficient using of materials and market capitalization are the most often used targets in this perspective.

Customer perspective defines the values of offers for specific customers. Products characteristics (or of the services), connection with customers and accomplished business image are the three assets of this BSC perspective. Customers' perception of a value defines the place of the intangible asset within the value creating process. The perception in fact determines the way a company will become recognized among competitors by attracting and keeping customer focus, and improving the relationship with target customers. Participation in a market, customer satisfaction and their loyalty usually represent the most important challenges to be met by the strategy. There are certain measures used in order to have the challenges met: volume of participation in a market, presence of new products in total income, retention rate, number of customers, sale per customer.

Internal business process perspective identifies critical processes and their influence on the strategy and develops the best measures to follow accomplished success. It is necessary to have internal business process managed properly and excel at certain processes in order to have satisfied shareholders and customers. Kaplan and Norton identified four management processes: operational process management, customer management, innovation process management, regulatory and social processes management. Identification of innovation process as an important management process will serve later on for definition of BSC fifth dimension, when the R&D process is critical in strategy formulation and implementation. Cuts in spending resulted from increase in operational efficiency and process improvement, can be effective in a short term. Income growth coming from improved communication with customers is visible in the middle term. However, increased innovation increases income and profit in a long term. There are success measures identified for the targets of this perspective. For example, the target is production automation and its measure is the level of accomplished automation.

Learning and growth perspective identifies intangible assets, which is the most important in the strategy. The intangible asset has the role of a root of a tree, which is the source of support, nourishment, growth of the crown and future fruits. Eppler and Platts (Eppler, Platts 2009, 61) compare parts of the tree (trunk, crown, fruits) with the three remaining perspectives describing the interdependence of the perspectives in the way the root, trunk, crown and fruits are mutually dependable. In other words, if the root is weak the trunk is unstable, the crown is narrow, and the fruits are of poor quality. Kaplan and Norton (Kaplan, Norton 2001; Kaplan, Norton 2004) classify the intangible asset in the three categories: human capital, information technology capital and organizational capital. Human capital is the most important part of intangible asset because it encompasses employee

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knowledge and skills, training and talents, enthusiasm and capacity to learn. BSC learning-and-growth-perspective measures provide a company with human resources with adequate knowledge, skills and training to implement a strategy. Some of the learning-and-growth-perspective measures are investment in employees, number of training days, understanding certain strategic skills, employee satisfaction, days off from work. Information technology capital is related to information systems, databases, system networks, technology infrastructure. Organizational capital supports general atmosphere and system of values; among the most important of those are business culture, leadership and teamwork.

Possibility for innovation comes as the result of learning and growth. Improvement in performances, from the learning-and-growth-perspective targets standpoint, improves business processes and accomplishment of objectives of internal-business-process perspective. Thanks to this, from the customers and shareholders viewpoint the organization will accomplish set targets.

In order to follow fulfillment of strategic targets from different perspectives different success measurements are used. Subsequently, the best performance measurements are those that are linked to the strategy. Cause-and-effect link between strategic targets is established, in the same manner, from different perspectives. The idea that the targets and measurements are linked in BSC brought to the concept of strategy map which describes the process of value creation for shareholders. It points to the logical way to establish links between strategic targets using the cause-and-effect chain. (Kaplan, Norton 2004).

Apart from targets (or strategic targets) and performance measurements (metrics), each perspective also includes definition of tasks and initiatives. Therefore, the BSC represents a communication tool, which clearly defines links among the strategy and short-term actions. Measurements follow target accomplishments, i.e. advancement in their appliance. For example, income growth and profit growth or added economic value could be used as measures for profitable growth accomplishment (financial target). Typical Balanced Scorecard contains from 20 to 25 measures, or 1 to 3 measures per target. Companies can use different measures depending on chosen strategy, but it is necessary to keep balanced approach between measures of present and future performances. Tasks, which represent desired value of performance measurement, are defined according to measurements, which measure accomplishment of objectives. For example, average amount of purchase and the number of customers give measure for accomplishment of the objective to increase customer satisfaction (from a customer perspective), where the tasks represent quantity of desired value of average purchase and number of customers. If marketing intensity is a goal, measure could be percentage of sales, which will be invested in marketing. Corresponding task would be a concrete percentage. Initiatives are concrete activities needed for objective accomplishment (e.g. loan purchase, sales, bonus for increased sale, etc.).

Applying the BSC concept connects the formulating phases with strategy implementation, and gives dynamics to the relationship. Because of the character of contemporary business environment, the ability to apply the strategy becomes more important than the ability to formulate it. In other words, each failure in strategy implementation means failure in its formulation. The problem often lies in discord between formulation phase and implementation, because strategy implementation is the process that primarily creates appropriate organizational structure, business culture and spends resources which has to be planned and controlled. It is possible to come across obstacles and problems during strategy implementation, which initiates its alteration. According to Beer, Nohria (Beer, Nohria 2000, 133), about 70% of all initiatives for changes end up as failure. Researches (by Kaplan, Norton 2004, X-XI; Kaplan, Norton 2008, 64; Đuričin, Janošević, Kaličanin 2011, 465-485) show that the rate of strategy implementation failure ranges between 70-90%. Top managers of American leading enterprises estimate that less than 10% of all strategies are successfully applied.

Some authors (Nørreklit 2000, 71-72) criticize the BSC concept pointing out that the cause-and-effect chain does not contain lag time dimension between cause and effect. Dror (Dror 2008) sees the BSC limits in lacking of basic directive for selection of performance measurements, and in complexity of feedback from financial perspective to customer perspective and internal business processes. Kanji and Moura (Kanji, Moura 2001) believe, among other things, that the BSC model's weakness is in its concept because it cannot be easily translated into measuring model, in interaction among criteria because it is not clearly presented, and in model's low dynamics because it insufficiently follows the competition and progress in technology. Significant advantage of BSC is at the same time its disadvantage because the BSC requires understanding, involvement and support from every part of the organization (Chavan 2009). However, the fact that this concept brings dynamic alignment of vision, goals and strategy, and it identifies the place and role of intangible asset in value creating process, its usage in formulating and application of R&D strategy can have substantial positive effect in synchronization of investments and results in this field of business.

### **Role of Research and Development in a Business Strategy**

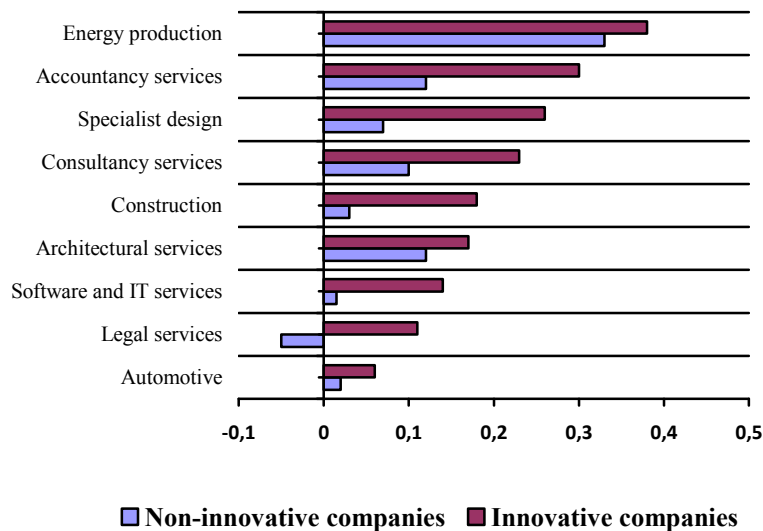
Innovative possibility is one of the most important factors of change. Innovations are necessity for a contemporary organization's existence and prosperity. R&D is one of the most crucial sources of innovation and a key motivator in introducing changes in a company. There is a cause for each person's death, in business it is inability to innovate. What has to be the subject of analysis and long-term planning in each company can be summarized in following questions. Firstly, how much to invest in R&D in order to get new products or processes. Secondly, how much to invest in order to improve existing products and processes. Thirdly, taking into account existing and potential knowledge and

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experience is it possible to succeed in the fields of research and development. To get the answers it is necessary to systematically follow and identify: (1) fields with rapid growth, (2) indicators of important technology inventions and (3) fields that are stagnating or are approaching the point of saturation (Janošević 1989, 67-71). In this way, it is possible to direct R&D efforts to those fields, which are strategically important, the fields that should only be monitored, and to recognize fields where not to engage efforts.

The importance of investing into innovative activities is clearly visible in Figure 2, which shows the comparison between the sales growths in innovative, and in non-innovative companies in different branches of industry between 2006 and 2009. Such sectors as legal advising, software and IT production, and construction display the largest difference in sale growth between the innovators and the non-innovators. Energy-production sector, on the other hand, shows the smallest difference, i.e. investing in innovation is the least reimbursed through sale growth.

**Figure 2: Comparison of sale growth between innovative and non-innovative companies in different industries between 2006 and 2009 (Peggie 2011, 3)**



In the analysis of complex influences of different strategic resources on a company's growth and development, it is difficult to determine the place and role of each one of them. Even though it is undeniable that R&D is, in many organizations, an important factor that contributes to creating competitive advantage, it is necessary to consider possibilities of other strategic resources. Namely, each company is a collection of unique resources and abilities making a foundation for competitive advantage (Hitt, Ireland, Hoskisson 2003, 20-22). In time, the companies gain, develop and spread their resources, and having different

development paths they have different resources. In case the analysis shows that, the R&D has influential role it is important to efficiently manage the R&D sector. Then history of mortality of companies from the Fortune 500 List gives a good insight into the importance of R&D (Ganguly 2000, 275-278). In the same manner, empirical researches show that the height of investment in R&D does not guarantee its efficiency and effectiveness. Application of BSC concept gives a clear picture of R&D role in strategy formulation process and better alignment among formulation phases and strategy implementation.

For the success of R&D, it is particularly important that R&D has good connection and communication with other business functions, especially with production and marketing. It is useful to know there are three levels of connection: strong, moderate, and weak. With weak connection there is one-way information flow going from: research and development-production-marketing. Contrary to moderate connection in which there is feedback between research and development-production and production-marketing, but not in the line of research and development-marketing, the strong connection has mutual influence of all of the three functions in continual balance. Because it is necessary to always keep adjusted to new events, the connection has to be dynamic, not static.

R&D competencies are connective tissue of different fields of work, and at the same time motivators for development of the new ones. These competencies are "hidden" (like a tree trunk), cannot be easily copied, therefore the secret of success is not in remarkable products, but in unique set of competencies which enable a company to produce remarkable products. The competencies give the opportunity to an organization to diversify into new markets and to produce by re-applying and re-configuring of what it does the best. According to Prahalad, Hamel, (Prahalad, Hamel 1990, 82-84), strategic management is a process of collective learning which is directed at developing and creating key competencies. Wishing to emphasize the importance of collective learning in a company Prahalad and Hamel used the term core competence as something that expresses better the dynamic learning process that is the subject here. Core competence is defined as collective knowledge in an organization, especially when speaking about how to coordinate different production capabilities, and to integrate manifold streams in technology.

Thanks to the core competence, the diversified companies can realize better synergy between strategic business units (SBU). In that case, the strategy of company does not include only desired business portfolio and SBU, but also the competence portfolio. Therefore, way of diversification can be influenced by competence, not only by attractive market. That what looks like entirely diversified portfolio can have a small number of core competences in its root. The intention is to stimulate invention and development of competences in a company that would find new opportunities to accomplish goals and success in a market.



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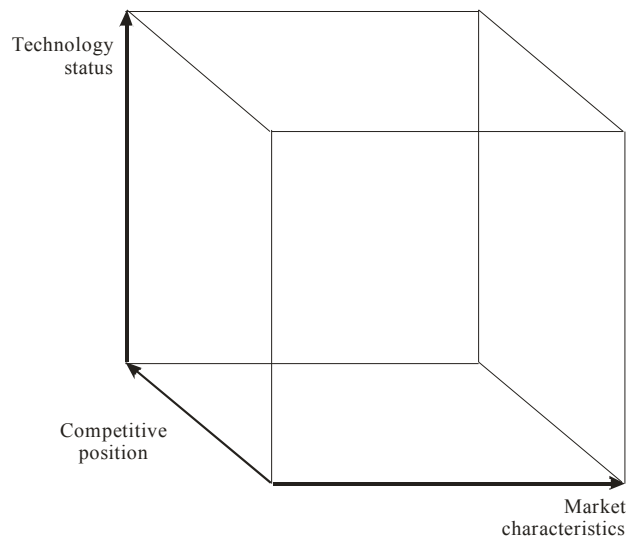
In order to have R&D integrated in a company's global business the objectives of R&D should be formulated from different perspectives and incorporated into the business strategy. The first step in the process is to define the place and role of R&D in accomplishment of alternative strategic options (Steele 1975, 53-63). R&D has a very important role in implementation of technology leadership strategy. Technology leadership means strategic decision to be the first in implementation of technological change, which supports certain strategy and includes not only development, but also successful technology commercialization, and measures sustainability of technology leadership. Even though the technology leadership is often analyzed by product technology or process, it also have a lot broader context. Technology leadership is often viewed as a way to accomplish generic differentiating strategy. Leadership position, however, can be achieved with technologies included in each of activities in value chain, so that it is possible by using them to reduce the expenses and to differentiate.

It is possible to define the R&D role in a company's strategy from the perspective of: (1) existing business, (2) extension of the existing business, and the extension can be achieved by introducing related businesses or engaging in businesses beyond existing portfolio, and (3) creating a completely new business activity that would result in new products or services. Therefore, R&D management interferes with the questions of support and defense of present business activity, contrary to the employment to create additional possibilities either by extending the existing business or by diversifying. Namely, business portfolio of a company includes different kinds of work and products. In order to successfully operate with such a complex business it is necessary to understand different R&D application possibilities. Special type of strategic decision-making is to bring R&D into the function of certain business portfolio, i.e. competence portfolio.

Technology strategy has broader meaning than the R&D strategy because it does not apply to only gaining technology through actions within a company. Technology strategy defines basics in acquiring and using technology (Utunen 2003, 31-39). Ford (Ford 1988, 85) defines technology strategy as the aspect of a company strategy that deals with usage, development and maintenance of total knowledge and capacities of a company. Technology can be generated internally or bought externally. Generating technology with company's own R&D will result in producing private basic knowledge and enable training of specialists before the production begins. Purchasing technology means a small or none of R&D, small technical and financial risks and possibility to start the production sooner. Another important dimension of R&D is related to the usage. Dilemma is whether to invest in the use of personal technology or to sell it to another organization. Selection process to determine the value of new technology is followed by numerous obstacles. It comes from the fact that the value of new technology is determined by products, processes or services which come as its result, additionally the market is often non-defined. The amount and quality of available information about new

technology can have negative influence on the decision-making. Usually even the secondary benefits from the new technology are not reliable. Additionally, both customer and seller want to maximize benefits from the technology transfer. Namely, the price has to adequately compensate to the producer, and to bring satisfying profit and liquidity to a buyer.

**Figure 3: Importance of R&D in growth strategy**



In order to have the R&D activity successfully contributing to strategic definitions and to business specific targets, it is necessary to understand, measure and analyze a large number of factors and their interdependence (Figure 3). The most important factors are:

1. Market characteristics
2. Competitive position
3. Technology status

When considering different models of R&D for using in strategy purposes, it is necessary to know market characteristics for specific industry branches. For example, the branches with mass production, having moderate technology improvements and which markets heavily react to product differentiation and innovation in distribution and sales, will focus on finding evolutionary improvements. These tendencies are enabled by customers' limited technical knowledge, which mitigates the consequences of delayed application of important technology innovations.

Bold innovation can be useful in industry branches defined by fast technology development and technically educated customers. This tendency is additionally pushed by competitor's often technology innovations and by the time

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in which a successful innovator makes the impact in the market. It is important then to react immediately and follow the innovations of others. In industry branches, which produce non-differentiated products with technology that is changing slowly, and in which the reaction in the market is influenced by difference in prices, the most promising way is to minimize the total expenses of R&D.

The questions in this field are often related to the value of performances compared to the price in a specific market. In other words, what is the importance of difference in performances in a customer's opinion, and how obvious are those differences? If the differences are very important to the customer and if those can be clearly identified, then it is obvious that the superiority of that product has got to be maintained. It is also necessary to check the customer's reaction to price alterations. Small price modifications are important in products of small differentiation, therefore the advantage has to often be achieved by lowering the expenses. If the products are competitive in style and characteristics, or if there is an emotional momentum related, then the customer is probably less sensitive to the price modifications.

It is also important to guide the R&D sector in a way to support specific requirements set by certain phases of a products life cycle. For example, in a growing phase the emphasis is on product quality improvement. Later on the expenses could be reduced in favor of technical servicing. When studying these questions it is necessary to be cautious and studious in market identification. Skillful and imaginative segmentation will give to a company or to its competitors the possibility to divide the market so that a product gets its profitable space. Segmentation process can slip away rather unnoticed causing insignificant reaction from competitors.

In R&D process, it is also important to look into *competitor business position in a market*. One has to be aware of major competitors, anticipate their strategies, including their reaction to the adopted strategy. If a company is a leader in the market then the R&D strategy has to maintain that position. If the company is backing down a back-up solution for its support has to be found, or all bad aspects have to be minimized. The last solution is usually achieved by market segmentation, which helps to find "a gap" in the market in which the company could be a leader. Beating a leader in a market is a slow and expensive engagement, unless the leader is not competitive. On the other hand, participation in a market can be easily lost to a company, which is implementing strategy for improvement in market participation.

Another danger is in the fact that the products are going through different phases of a life cycle, competitors are developing alternative approaches to satisfy the needs taking over the market, which is not secured in a longer term or in time, it becomes less attractive. That can make a company decide to expand the business by introducing new products, which are of a different market or technology (dis)association than the existing product offer.

Business, which already holds a strong position in existing markets, is in a better position when heading for a new challenge in different corresponding fields. On the other hand, it is not good for a business that struggles for survival and faces strong competitors to go for additional challenges. It is clear that a company has to have ability to identify attractive corresponding market or new products, which need similar technology that could be further exploited. If such opportunities cannot be identified, or if a company does not have necessary technological grounds for the task, then there is no real strategic alternative.

In order to evaluate competitive position of a business, it is necessary to analyze many factors, especially those related to: the progression in a market, strength of distribution channels, product lines with excessive product sale and/or expenses, position compared to other leading market competitors, dynamics of competitor's business – are the main competitors well known and predictable subjects or the market is in turmoil, and are there any new competitors coming up? Competitive atmosphere can be rather unpredictable and even threatening in an unconquered market. However, the very fluidness of such an atmosphere can be inviting for a newcomer and a chance for the quick breakthrough, which is by far more attractive than gaining over new customers in an already developed market with stable competitors.

Closely related to this, is naturally the question of competitor's technological strength and R&D strategy. If an organization faces strong competitors in the markets sensitive to product performances, the technology has to emphasize the product performances. In case when competitors emphasize adequate technical performances, which accentuate reduced expenses and prompt reaction, a company has to evaluate the advantages by comparing the price of competing with competitors and finding new superior products at the price not attractive for the customers.

The starting point, when analyzing *technology status*, is a phase in its life cycle and possibility for further improvement. Understanding a technology life cycle enables the team of managers to find the location of products, based on specific technology, on the curve of life cycle (production, appliance, growth in appliance, maturity and degradation). The closer technology gets to maturity phase, less are the chances for competing advantage. The other way round, a company with strong competing grounds established with technology whose future is in a long-term progression, will probably not find the research for alternative approaches attractive.

When a new technology appears, a new field of chances is created, and as time goes by greater amount of knowledge that can be usefully applied is being applied. Since changes in technology cannot last forever in any field, improvement is becoming more expensive as it approaches to maturity and degradation phase. Technology discontinuity comes at this point. The fact that each technology has its limits for improvement should be used by management for creating or adopting new technologies, because business has to be under less influence of maturing technology.

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Therefore, it is not surprising that industry branches with long tradition have problems when innovating on the grounds of their own existing technology. There are also risks in improving old technology even by introduction of superior technology. Great numbers of examples show that companies persisted with old technologies even when sale began to decline because of competitor's new technology. It is known that the smallest and most reliable cathode-ray tube was developed after transistor had been introduced. In the same manner, giants in production of mechanic calculators did not improve to production of electronic calculators until manufacturers of mechanic typewriters had become successful in production of electronic typewriters. In addition, companies that made success by introducing new technology in the past cannot continue building competitive advantage on the same grounds. There are different technology prediction techniques used for observation of possible technology changes and their influence on company's business.

Initial disadvantages and price of a new technology are all latent danger for its limited usage. It is not enough to collect information only from existing market, because non-traditional competitors and companies could be the sources of threatening technologies. In other words, technology threats start with birth of a new technology innovation in another branch of industry. It would be wrong to wait for old technologies to loose their importance and then to start with analysis of threats.

In the process of technology-condition analysis, it is important to define performances of competitor's technology, to determine whether they make improvements or declines in the implementation. The most difficult aspect of the problem is estimation of relative advantage of future alternative technologies and their positioning on the relevant curve of life cycle. In order to make such comparison it is important to foresee future characteristics of customer demand and to simultaneously foresee future trends in development of each of competitor's technologies, and then to assess which of competitor's advantages is most likely to be accomplished in the future.

In a new technology development, the emphasis may be placed on substitution effect in making a product that will satisfy entirely new needs, that will provide new services. In the first case, the function that is realized by new technology remains mostly the same, only the physical process shaping the function is changing, or the product appearance is radically changed, whereas needs and demands stay the same. Since the products satisfying certain need or function already exist, the new technology will accomplish its excellence through lower expenses or through higher added value, as in improvement in performances, decrease in size, greater confidence and comfort. The appearance of new technology in a different branch than the company's represents serious threat. Second subgroup of work on the new technology includes R&D activities, which provide a completely new product function, or drastically change human

capacities, so that it makes differences in types, not in the level. Namely, a new business is created or even a new industry branch (Steele 1975, 78).

### **Using Balanced Scorecard to Formulate R&D Strategy**

R&D strategy determines basic ways to implement these activities. R&D strategy has to be aligned with general strategy, generic strategies for business level and the strategy for specific business functions. R&D strategy represents an aspect of technology strategy, which has been discussed above. Formulating R&D strategy requires the same attention and analytic approach as formulating the company strategy. This is especially important because R&D strategy has to give support to strategic orientations and alignment between different business functions. Therefore, continuous evaluation and analysis of great amount of factors, and especially of opportunities and threats from the environment, of competitor's position and technological possibilities, has to be a permanent task. Analysis of different factors important for choosing a strategy will question the relevance of existing strategy, it will constitute different supporting measures and it will encompass and evaluate different shapes of alternative strategies. Formulation and implementation of successful R&D strategies requires combined usage of many resources that are rare, valuable, hard to copy and irreplaceable. The synergy effect is very important in the process of formulation and implementation of R&D strategy. The synergy conceived on research and development has stimulating effect on introduction of a new activity, is hard to imitate and leads to improved profit. Specific R&D strategies are a baseline for drawing conclusions about investments into these activities, R&D program balance, using the existing and obtaining new resources and which measurements to use for the evaluation of R&D projects.

R&D strategy is implemented through R&D program and through selection process of R&D projects. R&D program is a set of currently active and accepted projects having delayed start. Primary objective of the program is to determine the needed amount for investment in R&D strategy and to balance R&D program from different dimensions. There are no strict and universal rules to estimate the amount of necessary investment in R&D. At the same time it should be remembered that there is a critical mass of investment below which the R&D programs are almost completely inefficient.

Apart from the volume of investment, it is important to determine structure of the program because the R&D program is not a mere sum of its parts. The structure defines presence of specific types of projects in the program. The need to balance the program has strategic character. Balancing the R&D program leads to desired project portfolio for support to strategic roles. Therefore the prerequisite to successfully manage R&D is to understand the meaning of balanced program from different dimensions perspective, and especially to understand the relationships

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between: assets and risks (commercial potential and technical obstacles); offensive and defensive research; short-term, midterm and long-term projects; projects of different risk levels; research and development; fundamental and applied research; production and process; specific science fields; engagement of certain project teams; projects implemented inside a company and outside the company (Steele 1975, 66-71).

There is not a single company that could be a leader in large number of science fields. Therefore, it is important to determine in which fields to dominate and to concentrate R&D efforts. R&D activities will be present in certain fields in the amount necessary to assess status and technology development. There will be areas in which it is not necessary to undertake any research. Optimal strategy will find solutions to following questions: (1) in which fields to concentrate R&D efforts and which product lines to defend at any cost, (2) which fields have the capacity for the greatest technology excess, (3) in which fields it is possible to come across unexpected discoveries, especially those which could get a company “at a sleep” and lead it into unfavorable position?

**Figure 4: Intangible asset elements as non-material inputs and R&D outputs**  
(Vuolle, Lönnqvist, Van der Mer 2009, 27-28)

| Intangible asset   | R&D non-material inputs   | R&D non-material outputs  |
|--------------------|---|---|
| Human capital      | Different skills, experience and education, expertise, Creativity, innovative behavior<br>Ideas   | Skills for R&D management<br>Indirect knowledge   |
| Structural capital | Personal relations<br>Organizational culture<br>Organizational structure, cross functional teams<br>Internal cooperation and projects<br>R&D support systems<br>Management support, dedication, practices | New personal relations<br>Documented information/publications, technical reports<br>New knowledge<br>New technology, licenses, technological knowledge<br>Patents, using patents, new products<br>New or improved processes or services, innovation in organization |
| Relational capital | External stakeholders' contribution<br>Information inputs, feedback and client involvement<br>Direct relations and joint projects with companies and institutions   | New or improved relations with customers and other external stakeholders<br>Brands, trades and services<br>Image of organization<br>Knowledge flow  |

In the era of technology changes, a company has different R&D strategies at its disposal. The company has following possibilities: to introduce a product before others (the first in the market), to follow the leader, to modify the product according to requirements of certain market segments in already developed market (application engineering) or when using innovations to rely on superior production efficiency and control expenses (Ansoff, Stewart 1967, 81). According to Martin (Martin 1984, 169-189) and Freeman (Freeman 1982, 52-64), one of possible R&D strategy divisions is into: offensive, defensive, imitating, application engineering and dependent strategy.

R&D is oriented towards future value creation, and the value that is created by using R&D is indirect and potential, provided that the value is not created independently. Consequently, R&D activity is rarely valuable independently. Therefore, different aspects of these activities should be integrated and mutually linked. The highest value is created when R&D activity is aligned with the strategy. It has already been pointed out in previous discussion that the essence of a strategy is translating intangible asset into value through investments. Intangible asset is strongly linked to R&D, i.e. R&D activities exploit and improve the intangible asset. Different kinds of intangible asset (training, expertise, business culture, personal communication, databases, different applications of IT capital, communication with customers, reputation, etc.) represent the most important inputs for R&D projects. On the other hand, results of R&D are linked to specific intangible-asset components (technology knowledge, patents, new technologies, new or improved communication with customers, logo, etc.). Figure 4 shows intangible asset elements as non-material inputs and R&D outputs.

In order to have R&D resources transformed into a value, a strategy is needed. BSC represents a basic tool for a strategy formulation and implementation. Learning and growth perspective identify intangible asset, which is the most important for the strategy. The key question in learning and growth perspective is: how to provide capacity for changes and improvements? Namely, learning and growth perspective describes a company's intangible asset and its role in strategy implementation process. Figure 5 shows BSC as general framework for R&D strategy description and implementation.

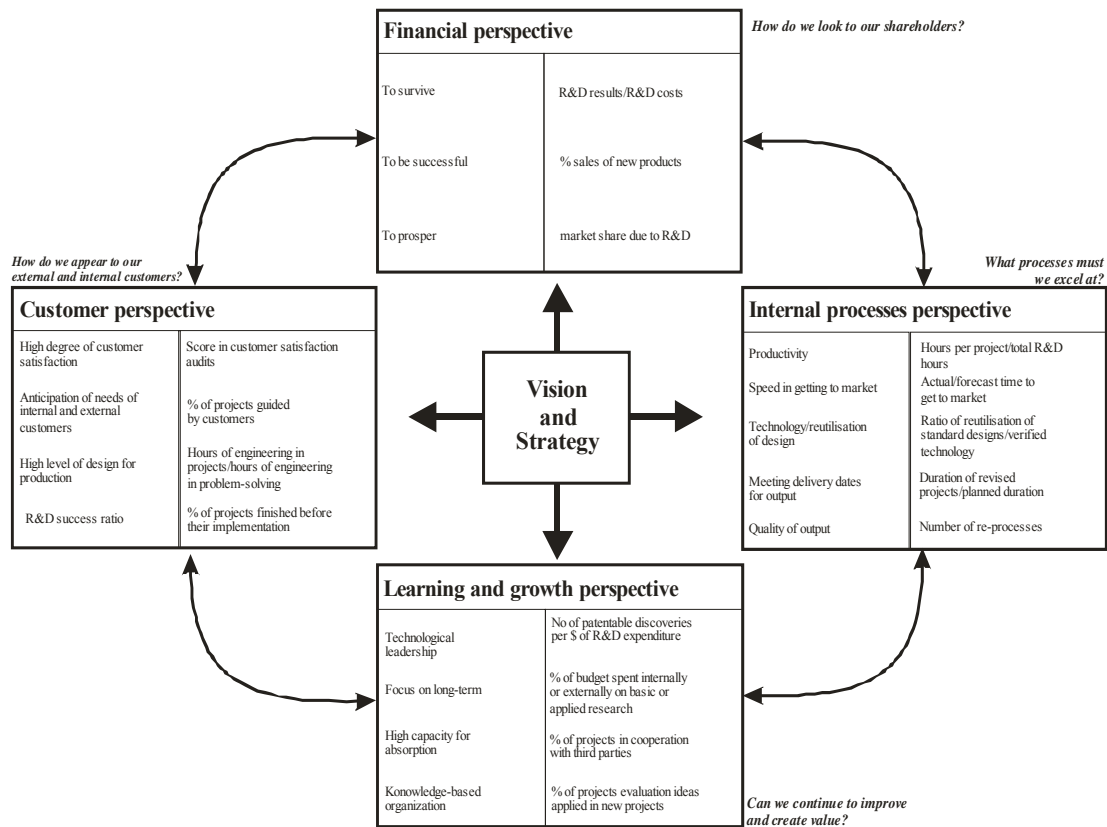
Innovation possibility is a consequence of R&D, whereas identification of new customers, new markets and new needs of existing and new customers is integrating part of innovation process. Improvement in performances from learning-and-growth-perspective objectives enables improvement of business processes and target accomplishments from internal-business-process perspective, thanks to which a company accomplishes desired results from customer and shareholder perspective. Bad performances from customer perspective or learning and growth perspective give leading indicators for future setbacks, even though the existing financial situation is satisfying.



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Performance measures represent indicators, which identify achievement of planned R&D targets and accomplishment of defined strategy. Performance measurements are especially important because they indicate possibilities to create value by investing in R&D. Measurements from learning and growth perspective in BSC concept provides a company with human, information and organizational capital for implementation of R&D strategy. Possible goals and measurements from different perspectives are given in Figure 5. Some authors (Bremser, Barsky 2004) link certain different performance measurements per certain BSC perspectives with certain phases in development process of a new product.

**Figure 5: BSC as a tool for R&D strategy formulation**  
(Garcia-Valderrama, Mulero-Mendigorri, Revuelta-Bordoy 2008, 246)



An empirical research (Kerssens-van Drongelen, Bilderbeek 1999, 35-46), identified the most used performance measurements of R&D activities in BSC framework. The research included 44 companies that were active in the sphere of R&D. The research results show that 80% of respondents measured R&D activity

performances in some way. Identified measurements are categorized according to BSC perspectives. The most used performance measurements were:

- *Customer perspective*
  - Customer satisfaction/market reaction
  - % of successful products
  - Image of innovator
- *Internal business processes perspective*
  - Level of R&D objectives realization
  - No of completed projects/products
  - Expedition
  - Efficiency/budget agreement
  - Quality of output
  - Behavior of employees
  - Accuracy in planning
- *Learning and growth perspective*
  - Number of patents
  - No of ideas/inventions
  - Level of creativity/innovation
  - Networking
- *Financial perspective*
  - Expected/real internal profit rate
  - % of participation of new products in total sale
  - Profit from R&D activities
  - Improvement in market participation resulting from R&D

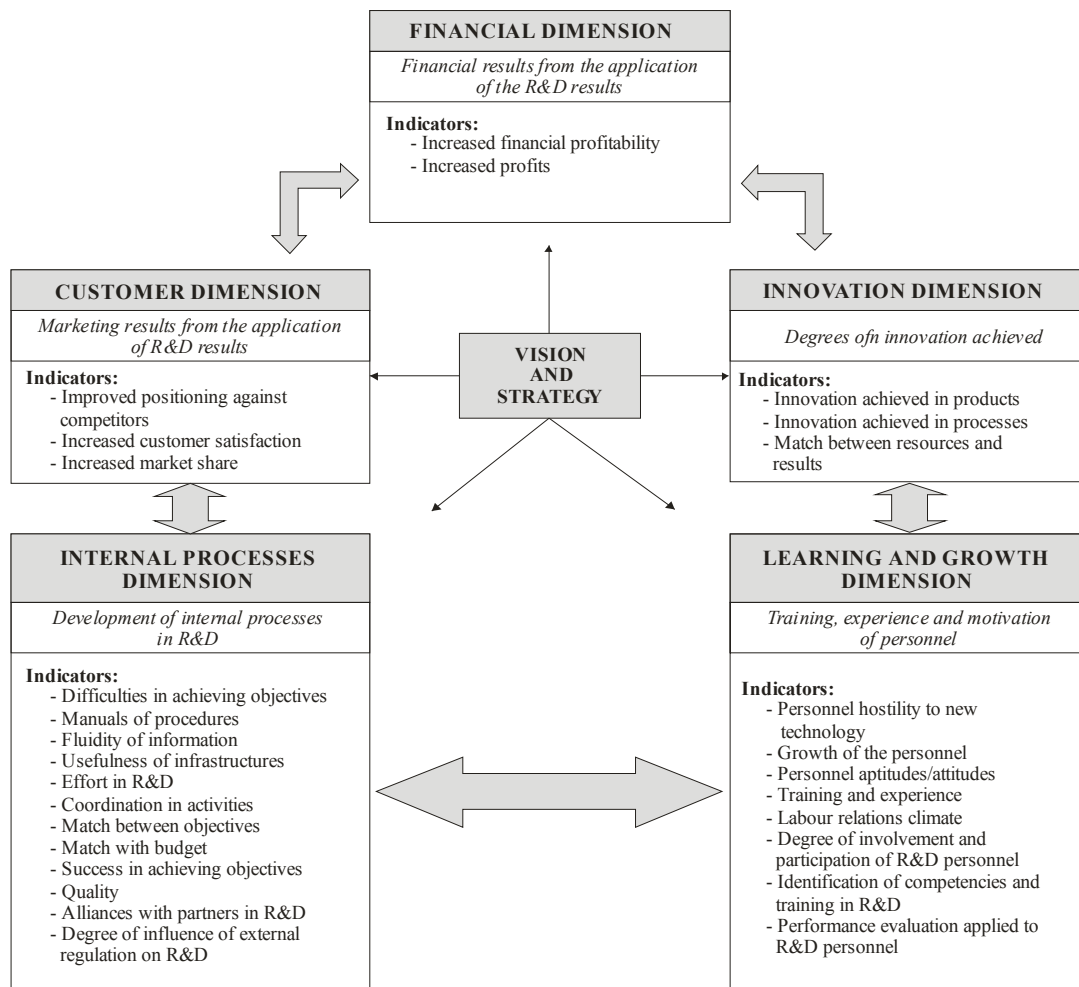
The most common R&D performance measurement used in companies that were the subject of the research was the number of completed projects/products (in internal business processes perspective) for which 50% of respondents said to have actively used it for assessment of R&D sector efficiency. The least used measurement (only 6% of cases) was behavior of employees (internal processes), number of ideas/inventions and networking (learning and growth) and growth of market participation resulting from R&D sector.

One of possible modalities for application of BSC concept in R&D strategy formulation and application emphasizes the innovation element and the need for identification, monitoring and measuring of this element in R&D strategy. This can be achieved by enlargement of the structure of objectives and measurements with fifth dimension of BSC which separately treats the innovation aspect. (Figure 6). The reason for special emphasis of innovation dimension is in

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the need for clear separation of the company's commercial and financial results from the values for clients and shareholders created by innovation. It is important to point out that R&D activities represent only one part of all innovation activities in a company, and that, by introducing this dimension in BSC, it is possible to identify efficiency of innovation activities.

**Figure 6: BSC dimensions and indicators for R&D strategy description (Garcia-Valderrama, Mulero-Mendigorrri, Revuelta-Bordoy 2008, 262)**



Concrete indicators of innovation in a company are innovations in products, processes and correlation between resources and results. When speaking about indicators of realized product innovation, concrete measurements could be the number of new materials, number of new components or semi-products, new design, number of new functions of existing product. Some measurements for indicators of

innovation processes are number of new machines and production novelties. (Garcia-Valderrama, Mulero-Mendigorri, Revuelta-Bordoy 2008, 258-259).

### Conclusion

Necessity for strategic approach to R&D defines the character and importance of the activity. Application of BSC concept logic gives a clearer picture of R&D role in formulation and implementation process of a business strategy and better integration of financial and non-financial success measurement. In that way, BSC enables establishment of an organization, which is dedicated to accomplishment of the strategy that represents central managers' decision. On the other hand, a strategy is needed for transformation of R&D resources into the value. The highest value is created when R&D activities are aligned with the strategy. Accordingly, value creation by using R&D should be viewed in the context of the strategy role. Estimated future effects represent framework for strategy valuation. Therefore, the success measurement has to be based on definition of relevant performance measurements from different perspectives. The main reason for this lies in the fact that non-financial success measurement plays great role in effective R&D management. Intangible asset is strongly connected with R&D because these activities exploit and increase the intangible asset. Namely, different elements of intangible asset represent the most important inputs and outputs of R&D projects. Considering that non-material resources are very important in R&D projects, it is necessary to identify the projects' different non-material aspects when dealing with them.

Strategy exploiting competitor's advantage according to R&D activity should be aligned with general strategy, generic strategies for business level and strategy of certain business functions. The most important factors, whose influence on R&D role in business strategy should be systematically analyzed, are related to: market characteristics, competitor business position and technology status. BSC is a tool for R&D strategy formulation and implementation. By using BSC the objectives of R&D could be formulated from different perspectives (financial, customer, internal, learning and development). The synergy effect plays an important role in R&D strategy formulation and implementation. Synergy founded on R&D motivates the initiation into new business activities. R&D strategy is applied in planning process and in control of R&D program and in selection of these projects. Specific R&D strategies are baseline for decision making about how much to invest into these activities, how to balance the R&D program, how to use existing and acquire new resources and which measurements to use when evaluating the work of different organizational parts included in R&D activities and in R&D projects. Performance measurements are indicators that measure achievement of planned R&D targets and accomplishment of defined strategy. Different performance measurements per certain BSC perspectives could be aligned with certain phases in the process of a new project development.

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## FORMULISANJE STRATEGIJE ISTRAŽIVANJA I RAZVOJA PREDUZEĆA POMOĆU USKLAĐENE LISTE

**Rezime:** U radu se razmatra formulisanje istraživačko-razvojne strategije preduzeća pomoću usklađene liste. Imajući u vidu karakter aktivnosti istraživanja i razvoja, poseban značaj dobija sposobnost uspešnog formulisanja istraživačko-razvojne strategije. Izlaganje otpočinje sveobuhvatnom analizom same logike koncepta usklađene liste. Posebno se sagledava rastući značaj nematerijalne aktive u nastajanju ovog koncepta i mogućnosti njegovog korišćenja u procesu formulisanja strategije. Sledi zatim analiza uloge istraživanja i razvoja u poslovnoj strategiji. Ulogu istraživanja i razvoja u poslovnoj strategiji opredeljuju, pre svega, karakteristike tržišta, konkurentska pozicija biznisa i stanje tehnologije. Izlaganje se završava razmatranjem korišćenja usklađene liste za formulisanje strategije istraživanja i razvoja. Pažnja je usmerena na proces stvaranja vrednosti, po osnovu korišćenja istraživanja i razvoja, polazeći od značaja strategije kao planske odluke.

**Glavne reči:** Usklađena lista, istraživanje i razvoj, nematerijalna aktiva, poslovna strategija



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## MANAGEMENT CONSULTING ROLE IN THE DEVELOPMENT OF SMALL BUSINESS

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**Abstract:** *Small businesses, as a specific part of the economy, directly contribute to local and regional development, create jobs and solve the issues of balance in the economic structure. At the same time, through the specific relationship between rates of forming and closure of economic entities, market confirms entrepreneurial ideas and skills for enterprises' survival in the market. In addition to resources, creativity and entrepreneurial spirit, managerial skills represent the backbone of the success and development of small enterprises. Considering that in practice, growth and development of small enterprises is not accompanied by appropriate development of managerial knowledge and skills of managers, business consulting in management, i.e. management consulting, is potentially very significant support to the management of small enterprises. Although the concept of management consulting usually involves finding and proposing specific business solutions, for small businesses the most important and long-term benefit from management consulting is acquiring knowledge and improving managerial skills of entrepreneurs. This results in successful management of the enterprise under dynamic and changing business conditions. Such entrepreneurs/managers should be a catalyst for building efficient enterprises, which are able to grow and develop, thus contributing to the overall economic development. However, management consulting services are underused, and often inappropriately manage.*

**Keywords:** *management consulting, small and medium enterprises, growth and development of small business, development strategy.*

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### **Introduction**

Entrepreneurs are the driving force of revitalisation, transformation and business activity development, while entrepreneurship is the core of contemporary business. This is because the continuous development of new business ventures enables the vitality of market economy. The key change in global economy implies the change of the source of competitive advantage, as well as the importance and the role of entrepreneurship and small business management. One of the most important problems of contemporary small business is to respond to the challenges in connection with managerial activities. Also, small business owners do not dedicate enough time to the long-term planning and they lack expertise in planning that being the main reasons for small business failure (Peterson 1994, 44). Extremely changeable business environment, the effects of globalisation and increasing competition in the market, literally push small businesses into a constant change and continual improvement of their activities. In such a situation, each business segment should be elevated to as high level of competence as possible, since it has become a condition for company survival and its development. That really means that businesses should practice their business by lifting the barriers of their own knowledge and time of effective response to their clients' requests. In overcoming those obstacles, they need external help from people and organisations with the high level of professional knowledge in certain business areas. There are many well-known programs of external help that provide assistance to entrepreneurs and small business owners to acquire knowledge which presents the core of development and sustainable competitive advantage (Crisman, McMulan 2000, 50). That kind of assistance, provided by others, is also offered to businesses by consulting agencies and independent consultants (Dukić, Nikolić 2010, 69).

Management consulting has a huge potential, but at the same time, it is highly mystified and in our conditions presents mostly an unknown factor for managers/small business owners. In our economic climate, management consulting services have become more popular only during several few years. It is especially true for small business consulting. There are many shortcomings in small business sector in Serbia that can be eliminated by a new approach. It implies changes directed to the creation of a new attitude towards different impulses from the environment. In order to be compatible with relevant market economies, as well as the need for elevating general efficiency of domestic companies' activity, the processes of restructuring and reengineering, as well as innovations and organisational learning have become a necessity.

For small business start-up, the creativity, innovativity, expertise, determination, and risk-taking propensity of an entrepreneur are of the crucial importance. However, small business development implies the change from entrepreneurial to structural management, depending on the size and development of an organisation. In order to be successful, this change requires a higher level of managerial skills of business owners, who are, however, burdened with operational



activities. Actually, the bigger the company is, the more burdened they are. Having in mind the mentioned problematics of small business, as well as the possibility of solutions and reduction of this problem, this paper is analysing and trying to confirm the following assumptions, i.e. hypotheses:

1. If small business owners do not have enough knowledge about the management systems, it presents a restrictive factor of small business development.
2. Management consultants can help small business owners accept structural managerial system of running the company much more easily.
3. Management consultants should thoroughly observe the problematics of small business, considering the personality of the owner, i.e. his personal traits, preferences and potentials.

In that sense, this paper is presenting a relevant research and conclusions of the authors in the field of business economy and management, based upon existing domestic and foreign literature in management consulting, as well as upon the research available on the Internet. The methods used were historical and comparative method, the method of induction and deduction, the method of analysis and synthesis, as well as the method of generalisation in reaching the conclusion.

### **1. Specifics of Small Business Management**

If we observe the position and tasks of managers in small and medium-sized enterprises from the standpoint of functions, we can think that their task is much simpler, more limited and less demanding than the task of managers in large enterprises. Terms large, medium and small-sized enterprises suggest the linear reduction of challenge, responsibility and the importance of management, but is it really true?

It is true that managers in large-sized enterprises have tasks that are quantitatively much more encompassing and broader than the tasks of managers in small businesses. Also, the number of employees, financial resources and tasks are considerably bigger in large businesses. However, it would be incorrect if we consider the tasks of managers in small businesses to be mini versions of the tasks of managers in large ones. Actually, within the function and tasks of a manager (usually the owner) of a small business, there are a lot of challenges that are not present in large-sized ones. Pleitner (Pleitner 1995) cites some characteristics of company management, quoting Pfohl and Kellerwessel (Pfohl, Kellerwessel 1990, 18), and defines the core differences between management in small and large-sized businesses:

**Table 1 Differences in management of small and large-sized enterprises**

| Small enterprises  | Large enterprises   |
|--|---|
| Manager is the owner – entrepreneur                      | Manager is an employee  |
| Personalised management                                  | Management according to managerial principles                       |
| Direct engagement in business activities „in plant“      | Distance from the activities „in plant“                             |
| A great role of improvisation and intuition              | No improvisation and intuition                                      |
| Limited planning   | Detailed planning   |
| Short, direct channels of communication                  | Long, often nontransparent channels of communication                |
| Faulty or insufficient expertise of management           | Good expertise of management  |
| Barely formulated information                            | Detailed information  |
| Managers overloaded with numerous functions              | Multi-level, real division of labour                                |
| Low chances of reaching an agreement over a bad decision | Good chances of reaching an agreement over a bad decision           |
| Technically-oriented education of entrepreneurs          | Decentralised technical knowledge available in separate departments |

*Source:* Pfohl, Kellerwessel (1990), 18.

This is a rather simplified overview for easier consideration and understanding the differences. Surely, all mentioned characteristics can be divided into the whole scale of more or less prominent differences between management of small and large-sized enterprises.

The literature is often loaded with discussion about the border line between small, medium and large-sized businesses. The fact is that quantitative criteria, i.e. number of employees or the size of profit, considerably differ and depend on the strength of domestic economy. Also, the border line between the levels of the tasks complexity for managers in these enterprises is relative, especially in companies that employ rather large number of employees, but still have the characteristics of small business management. This is particularly true for rapidly growing companies, whose number of employees, total income and earnings have been growing steadily while internal structures, processes, management and administrative systems with highly personalised and technically-oriented company culture remain the same. While a business is small, entrepreneurial way of managing it is the strength of a company. However, when the company becomes larger – both internally and externally – when it employs more people, entrepreneurial way of managing the business becomes its weakness. Then, the

advantages of entrepreneurial way of doing business become an obstacle to further growth and development of the company. Thus, there are more and more professional managers in managing teams of middle-sized companies. However, even in middle-sized businesses that have a manager, who is not the owner of the business at the same time, the owner is still a person, who influences company activities a lot, although mostly informally (Simon 2005).

Entrepreneurs and small business owners consider the lack of financial resources to be the biggest problem and reason for business failure. Deliberately or not, they forgot to mention that one of the most important factors of small business development, beside finances, is the competence of the management, as well as readiness to self-improve and acquire necessary managerial knowledge. There is a considerable lack of competence in business planning, legal regulations, innovations, new technologies, business communication, e-business, marketing, design, etc that make a difference for our small-sized enterprises and entrepreneurs in terms of success or failure.

## **2. Management Concept as a Determinant of Small Business Development**

Nowadays, enterprises face huge challenges of the global business environment and the most important are incessantly internationalization of business, huge competition in innovations and technology, as well as the necessity of enhanced qualifications and flexibility of employees, etc. (Pleitner 1995, 938). Those are serious challenges in the area of planning, organisation, marketing, technological achievements, etc. that lead to important changes and to the need for introducing certain executive, i.e. managerial structures with appropriate knowledge and abilities. Of course, expertises are required, as well, to guarantee that certain business will be done. Thus, each successful business should have a balance between entrepreneurship, management and expertise. In that sense, we can differentiate the terms of an entrepreneur, a manager and an expert:

- Entrepreneur – a creator, a man with a vision, the catalyst of change, with personal attitude towards business;
- Manager – a pragmatic, organizer, highly-interested in organisation and power, professional attitude towards business;
- Expert – a perfectionist in his profession, likes his job, does not have feeling for time, money, and organization of work.

It is very important to bear in mind that managers, entrepreneurs and experts are not rivals within a company, nor that their jobs are confronted. On the contrary, the best business results are created if they work together. However, the role and importance of each of the functions are not equal at each level of development and size of a company. That especially relates to the way of managing it.

In a core of business there is entrepreneurship, i.e. entrepreneur as an initiator and innovator who transforms an idea into a result. As business grows and develops, management becomes more and more important. Since a bigger and more developed organisation requests structural and system management, managerial knowledge and skills become more indispensable as a company grows and develops. However, in small businesses, managerial knowledge is not present in adequate proportions and small business owners are under growing pressure of professionalisation. Entrepreneurial style of management is optimal and most often inherent. When a company grows up to a certain point, entrepreneurial style of management is not sufficient any more and it is important to introduce professional management system. In organisations that grow and develop successfully, entrepreneurial style of management, in line with the organisational growth, gives way to structural management system. Individual entrepreneurs, which mostly at the beginning are the founders, owners and managers of small businesses, as the time passes by, depending on the rate of growth and development of a company, let professional managers take up operational management and they become more involved in strategic planning and management. At the same time, the expertise keeps its important realisation role and parallelly with organisational growth, and in line with modern technologies, differentiates even more as the power of organisation. However, it is still in tight interdependency with entrepreneurship and structural system management. Thus, parallelly with the growth and development of a company, executive, managerial function and ownership differentiate mostly according to the following phases:

- Phase I: Consolidation of all functions ,
- Phase II: Separating ownership, entrepreneurial and managerial function from the executive one,
- Phase III: Separating ownership and entrepreneurial functions from the managerial and executive functions.

The problem of professionalisation of a company management, i.e. separating managerial function, is especially related to rapidly growing small and medium-sized enterprises that are most frequently drivers of technological innovations or new products. In such enterprises, one can mostly find experience and knowledge in professional (executive) part of business activities, but there is not enough strategic competitiveness and strategic tasks awareness. Also, strategic management systems do not necessarily exist (Dubs, Euler 2004), although in small business, the owners, which are at the same time managers, usually possess operational knowledge and expertise. They are occupied with professional and technological issues, the process of production and other operational business activities in a very personal and personalised way, led by their experience and intuition. In order to implement professional management in these enterprises, it is essential to depersonalise it and introduce the structural model of management (Link 2004).

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### Management Consulting Role in the Development of Small Business

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In the first cycle of business growth and development, the management of a company is mostly based upon knowledge and experience of entrepreneurs prior to business start-up. Instead of implementation of managerial methods and techniques in the aim of realisation of efficiency and effectiveness, intuition and so-called „sixth sense“ are more frequently used. The problem starts when such an attitude to management lasts for longer period of time. In that case, an entrepreneur, who is both the owner and immediate manager of a company at the same time, continues to decide on all the questions by himself or herself. He/she works more and more and has less and less time and the most dangerous is that he/she neglects the strategic issues of growth and development of the company because of the lack of time and numerous operational activities. One of the consequences of such an attitude is inconsistency of business activities and functions which results in additional risk for efficiency and even a survival of the company. That is why it happens frequently that companies, which are successful and grow intensively, suddenly develop problems and often failure while their owners-entrepreneurs do not even know the real reasons for that. That is why it is really essential to implement methods and techniques of contemporary management since the early phase of company activities. Predominant engagement in operational activities that limit the entrepreneur to oversee the situation and decide on strategy is a sign that it is necessary to transfer from entrepreneurial to managerial structure of an organisation. The differences between entrepreneurial and managerial approach can be seen more clearly in the following table (Kovačević 2001).

**Table 2: Differences between entrepreneurs and managers**

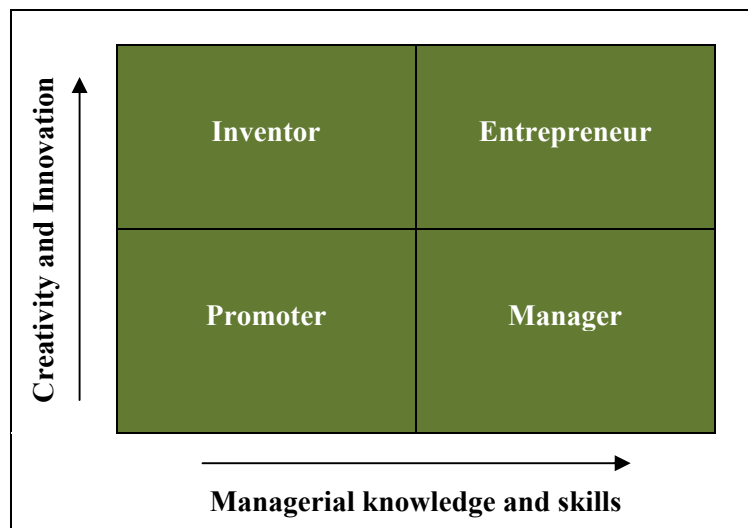
| Entrepreneur                | Manager              |
|-----------------------------|----------------------|
| Works right things          | Works in a right way |
| Creates                     | Administrates        |
| Innovates                   | Imitates             |
| Develops                    | Maintains            |
| Asks: „Why not?“            | Asks: „Why and how?“ |
| Questions (challenges)      | Accepts              |
| Mostly not project-oriented | Project-oriented     |

*Source:* By: Kovacevic, B., (2001)

A company passes through numerous stages during its development – from micro/small business, to medium, and finally, large-sized enterprise, i.e. multinational company. The growth of a company is, at the same time, a test for the company management and its readiness to change its attitude, its abilities and planning horizon (Drucker 1994, 97). For successful growth and development of a company, it is of crucial importance to define appropriate strategy, to implement it,

and finally monitor its realisation (Steinmann, Schreyegg 2002). However, it implies a certain level of managerial knowledge and skills of company managers that are mostly not in compliance with the company growth. Thus, one of the most frequent and biggest obstacles for successful growth and development of a small enterprise is exactly a lack of appropriate managerial knowledge and skills of its manager, i.e. owner. In order to be successful, it is very important that entrepreneurs, beside creativity and expertise, possess the highest possible level of managerial knowledge and skills. Such a conclusion can be reached from the research of a professor Jeffrey A. Timmons (Timmons 2009, 28) who emphasizes the difference between an inventor, promoter, manager and entrepreneur.

**Figure 1: What makes a successful individual entrepreneur**



*Source:* Timmons, J. A. (1999), 28.

According to professor Timmons, promoters strive to "instant enrichment", after one successful project. They lack greater creativity and serious managerial knowledge. They do not possess the vision that is based on the long-term realisation of business success. Promoters are not analytical enough to understand business more profoundly and do not possess conceptual skills needed for understanding their business as a whole. An inventor is a creative genius that creates numerous ideas. However, many of them do not become commercialised, since the inventor does not have enough managerial knowledge needed for a successful realisation of an idea. From the other hand, managers possess highly expressed managerial knowledge and skills, but they are less creative and innovative. Their basic goal is efficiency, while innovativity is not insisted on. Actually, in the environment which is too administrative it is often unwelcomed.

A successful individual entrepreneur, i.e. small business owner, possesses a high level of creativity, but precondition of the economic success of his/her creativity is that he/she is also able to be a successful manager, i.e. to possess managerial competences. Only these two characteristics together (entrepreneurial creativity and managerial competence) enable him/her to have an idea, create, make concept and launch a certain business, but also to run it efficiently and abet its development. If these two do not exist together, entrepreneurial way of management presents an obstacle for company growth and development.

### **3. Management Consulting in the Function of Development of Managerial Competencies of Entrepreneurs and Small Business Owners**

Contrary to large enterprises, small businesses have less formalised and less organisationally differentiated business processes. An entrepreneur, who solely decides on all the issues, as we have already stated, has little time due to larger amount of operational activities, so he or she neglects the issues of strategic company growth and development (Robinson 1982). However, strategic managerial activity presents the base of each company development. It is a necessary precondition for company leadership in technical, technological, production and marketing activities and, generally, in managing its whole business (Predić 1998, 33). The lack of strategic approach can provoke the stagnation of business activity and stagnation of the very company, while in practice, management development can maintain for a longer period of time. Stagnation and inefficiency are the most common results of the lack of managerial knowledge and skills. However, if the management is incompetent and inexperienced, the chances of company survival constantly become smaller. That is the source of need for getting assistance in management of small business units (Peacock 2004, 12). Knowledge of an entrepreneur, that he/she has gained through education and experience, can be enhanced by additional programs of education and training which positively influence both the ability of recognising entrepreneurial chances and market competitiveness (Baron 1998, 293). Besides, information and skills that are acquired through education and training can help individuals to recognize and realise those business opportunities that suit their knowledge and skills in a better way (Shane, Venkatraman 2000). However, the majority of entrepreneurs and small business owners do not realise how important the lack of knowledge in management can be, and they even try to hide it on totally irrational grounds, since from their personal, but also business point of view, education is relatively unimportant (Dukić et al. 2010, 230).

Paralelly with the growth and development of a company, strategic issues and strategic processes become more and more important (Bruckman, Iman 1980, 41), and the abilities of small business managers, their personal preferences, motives, value criteria, etc. present important factors of strategic business management and development potentials of a small business. While management

of large companies is rather limited in creation and realisation of strategic plans by formalised rules and organisational structure, strategic processes in small businesses are highly dependent on the personality of the manager. Whether certain strategy of a company will be developed and how it will be formulated often depends on the decisions and personal skills of the manager. However, small business managers in entrepreneurial mode of management care more for operational aspects of management than for strategic development. Many small and medium-sized enterprises mostly identify themselves with a certain product or production area, so that systematic and continuous thinking about the market, competition, buyers, etc. presents a relatively new tendency for them. At the same time, entrepreneurs frequently do not care for planning and strategic management. On the contrary, they create many plans for production and do not consider, or consider insufficiently, the development and monitoring of the strategy. It is possible that entrepreneur, i.e. the small business owner/manager does not face strategic issues because he/she simply cannot or it is hard for him/her to think strategically, i.e. simply does not know about all strategic techniques and tools. Also, it is possible that he/she, as a technical person or an engineer, considers that strategic issues to be too abstract. There is a real possibility that they get into so called conflict of loyalty if they, during strategic analysis, come to conclusion that they have to change a traditional product of their company. Since entrepreneurs usually do not want to do that, it is possible that they try to avoid strategic process, no matter that it is a precondition of further company development (Mollbach 2006, 150).

Thus, it is necessary that entrepreneur, i.e. small business owner, continually improves personal managerial knowledge in order to be able to make strategic plans successfully, directly or indirectly managing the growth and development of the company, but also in order to enhance his/her own entrepreneurial skills. In order for an entrepreneur/business owner to understand his/her role and tasks, as well as to gain better knowledge of management and the possibility of realisation management process, advices of external experts on management consulting are very useful. In developed economies, management consulting has a very important role in the process of professionalisation of management and implementing structural management system. Research in developed countries has shown that small businesses, whose owners participate in educational programs in management, have better results than those, whose owners do not engage themselves in additional education and training in (Chrisman 1999, 58). An external consultant assistance has a positive influence on business and its long-term ability to "survive", grow and innovate (Chrisman, McMullan 2000, 51).

It is characteristic that management consulting for entrepreneurs, i.e. small business owners/managers is not realised in the form of classical consulting, but is adjusted according to predispositions and needs of each individual entrepreneur and business that has its personal culture and other specificities. The precondition for it is definitely the fact that a consultant can recognise a common thread:



Personality – Function - Organisation/System (Mollbach 2006, 143). The research of Navahandi and Chesteen (Navahandi, Chesteen 1988, 40) emphasizes the importance of matching business needs with the knowledge and experience of consultants. Consulting services are also indispensable in the implementation of suggested solutions and afore-mentioned authors suggest the inevitable evaluation of suggested solutions. Also, it was perceived that entrepreneurs and small business owners continually needed a certain type of consultant help and support, especially in the field of management and strategic planning. Consulting in the area of personal development is especially emphasized as a very good preparation of the owner for many challenges at the time of the start-up and later during the growth and development of his/her businesses.

Comparing to management consulting for large companies, which does not take into account the personality of an executive, but offers an objective and expert solution for the company, management consulting for small businesses abets system and managerial-oriented problem solving by the very client. Management consulting that operates with entrepreneurs and small business managers has to possess the knowledge on management and management models, but also some personal and interactive psychological competences, especially in the field of decision making. It has to integrate knowledge and information from different scientific and professional areas (Schreyegg 1998). All this different knowledge is needed for a management consultant to professionally determine the border of his/her role as a personal counsellor, and when the need for consulting in organisation or strategic management appears. An experienced management consultant always strives to check whether client, i.e. small business manager, is aware of strategic tasks, i.e. whether he/she has understood his/her role and then, to provide better understanding or make it easier for the manager to understand his/her function and tasks through different content impulses. Of course, it is very important that the consultant has all necessary knowledge on the profession, on entrepreneurial and strategic management, psychological aspects of importance for consulting process, and to be able to think critically and can lead a successful dialogue with the client/entrepreneur.

It is important to mention that management consulting will be more efficient if the clients know how to use consulting services in a correct way (Bruckman, Iman 1980, 41). In order to improve management skills of a client (small business owner), management consultants offer a managerial and personally-based context of learning, directed towards relevant competences development (Schreyegg 1995, 54). If we simplify it, we can say that consulting process consists of five phases (Kubr 2002, 21-24):

1. The phase of initial contact – the first contact with a client, preliminary defining the nature of the problem (organisational, strategic, psychological, etc.), agreeing on consulting service;

2. Diagnosis – a detailed defining of problems and aims, the necessary level and the form of cooperation, etc. The central part of this phase is gathering and the analysis of data and information, i.e. deciding on which type of data they should collect, which methodology they should use, which people should be included and how that can be done, which data analysis method should be employed;
3. Action plan – finding optimal problem solution, matching it with the strategy of growth, defining the plan of overcoming potential new problems, etc;
4. Implementation – turning the planned into reality, the changes start to happen, some unplanned obstacles and resistance begin to appear, mistakes and oversights in action plan are corrected;
5. Monitoring and the end of a project – evaluation of realised results, discussion of concluding reports, paying off remaining duties, possible contract on long-term cooperation, etc.

These phases request different activities and present specific challenges for both a client and a consultant. Understanding of each phase is especially important during the realisation of a consulting project in a small businesses, bearing on mind the lack of time, knowledge and resources of small business owners.

### **Conclusion**

The failure rate of small businesses in Serbia is extremely high, but although the lack of financial resources influences it, even more important reason of failure is the lack of managerial knowledge and inefficiency of management. The fact is that small business is mostly set-up by people with an idea, expertise and courage, but at the same time without sufficient managerial knowledge. Depending on his/her skills, an entrepreneur, i.e. owner/executive leads his business into failure, stagnation (and after some time failure) or brings it to the right track of growth and development. It is not logical to expect an owner/executive of a growing business, with all his crowded operational duties, to manage all the activities in the company successfully and at the same time direct his organisation strategically in a wider context. Thus, parallelly with a company development, differentiation of managerial and executive functions should take place and managerial competences of the business owner/manager should be improved.

Therefore, the awareness of entrepreneurs related to the need of joining the process of life-long learning should be raised. Beside formal education, consultant services in developed economies proved to be a very good way to elevate managerial competences of a small business owner by organising education and training in management parallelly with current business activities. That helps in business improvement, overcoming business problems and further growth and development of a company. Management consultants, specialised in small

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business, get the whole picture of business problematics of a small company, taking into account personality type, level of managerial knowledge, limitations and potentials of the business owner. Such attitude allows a synchronised and balanced development of the company, but also of its owner. That minimises the possibility of "weak points" emerging in business and the system of small business management. At the same time, the organisation, which is highly-sensitive to all the challenges from the environment, as well as business problems, are especially improved. Of course, the usage of intangible, as well as financial resources will be more effective and more efficient if there is more competitive management.

As the answer to the starting hypotheses of this research, we can confirm that the lack of managerial knowledge presents an obstacle to small business development, as well as that it has to be considered as a whole. The hypothesis that management consultants can help small business owners to transfer to structural management of a company stays partially said, i.e. requests in-depth research since the negative effects of engaging consultants, possible business dynamics slowing down, the reasons for animosity of the small business owners towards professional management consultants and similar, have not been researched.

Additional research on this topic can give a more precise answer to the question what are the real managerial competences whose lack presents an obstacle for small business development, i.e. which competences of management consultants are the most needed in the situation when small business starts to grow and the owner starts losing control over the things in organisation and its environment?

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### **ULOGA MENADŽMENT KONSALTINGA U RAZVOJU MALOG BIZNISA**

**Rezime:** Mali poslovni subjekti, kao specifičan element privrede, direktno doprinose lokalnom i regionalnom razvoju, kreiraju nova radna mesta i rešavaju i pitanja ravnoteže u privrednoj strukturi. Istovremeno, kroz svojevrsan racio nastajanja i mortaliteta privrednih subjekata, vrši se tržišno potvrđivanje preduzetničkih ideja i sposobnosti opstanka preduzeća na tržištu. Pored resursa, kreativnosti i preduzetničkog duha, menadžerska znanja predstavljaju okosnicu uspeha i razvoja malih preduzeća. S obzirom na to da u praksi, rast i razvoj malih preduzeća ne prati odgovarajući razvoj menadžerskih znanja i veština rukovodilaca, poslovno savetovanje u oblasti menadžmenta, odnosno menadžment konsalting, predstavlja potencijalno veoma značajnu podršku rukovodstvu malog preduzeća. Iako se pod pojmom menadžment konsaltinga uglavnom podrazumeva iznalaženje i predlaganje određenih poslovnih rešenja, za mala preduzeća je najznačajniji i najdugoročniji benefit od menadžment konsaltinga zapravo sticanje menadžerskih znanja i poboljšanje kompetencija preduzetnika, što rezultuje uspešnim upravljanjem preduzećem u dinamičnim i promenljivim uslovima poslovanja. Takvi preduzetnici-menadžeri treba da budu katalizator izgradnje efikasnih preduzeća, koja su sposobna da rastu i razvijaju se, doprinoseći tako i sveukupnom privrednom razvoju. Međutim, usluge menadžment konsaltinga se nedovoljno koriste, a često i na pogrešan način.

**Ključne reči:** menadžment konsalting, mala preduzeća, rast i razvoj malog biznisa, razvojna strategija





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## THE NECESSITY OF THE EXPORT-ORIENTED REINDUSTRIALIZATION STRATEGY OF SERBIA

Gorica Bošković, PhD\*

**Abstract:** *Industry as an economic activity, i.e. industrialization as a process of transforming the economic structure of a country based on industrial development played a crucial role in the post-war economic development of Eastern European countries and SFRY (Serbia) as well. Owing to a high investment activity in this area of material production, impressive results were achieved. The period of industrial production growth in Serbia was terminated in the 1980s and the final failure of the applied industrialization model came about in the last decade of the 20th century. At the beginning of the current century, the total deindustrialization of the country began, along with the transition process. Additional problems, with regard to this, have afflicted Serbia due to the global economic crisis. This aim of the paper is to point to the consequences of the deindustrialization process as well as to the importance of the reindustrialization process, with special overview of the export-oriented reindustrialization strategy of Serbia. In order to incite the process, the state must have a key role, acting through new active and sophisticated industrial policy measures.*

**Keywords:** *industrialization, transition, deindustrialization, export-oriented strategy, industrial policy.*

### Introduction

In the development policy of Eastern European countries, after World War II, the industrial development had an absolute priority. However, in comparison to the economies of the industries that developed under market economy conditions, these countries were characterized by the economies of low industrial development. Nevertheless, the industry contributed greatly to the development of these countries. It became a leading economic activity in the structure of economy. Additionally, the majority of working population was employed there. The industry

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incited the changes in the economic and social structure of population, contributed to technological development and determined the scope and structure of foreign trade exchange. The idea of this development path, called industrialization, became spread and accepted widely. Industrialization became a basic development method, the aim and means of material and economic policy contributing to the general economic development (Gligorijević et al. 2008, 88).

The industry had a leading role in the post-war economic development of SFRY (Serbia). “Developing within the former Yugoslavia, Serbia was an example of a country that kept the export substitution strategy as a basic strategy of industrial development way too long. Such development strategy until the 1965 Economic Reform had given positive results. After that, a period of wandering in finding the proper strategy of further industrial development followed. It was characterized by efforts to implement the mid industrialization phase (better known as the development alignment phase), within which the necessary preconditions for applying the export expansion strategy had to be met. However, such a development strategy was not realized. The 1970s and 1980s of the 20<sup>th</sup> century can be characterized as a period of illusory development in which the conservative and inadequate economy was created as well as the industrial structure (high share of traditional, labor intensive, raw materials and energetic branches of low processing degree). This was an economic growth that did not stand at the market, especially in the battle with foreign competition.” (Gligorijević, Bošković 2007, 41). In a short period of time, owing to high investment activity in the industry, the impressive results were achieved. The growth of industrial production reached its peak in the 1980s of the 20<sup>th</sup> century and remains until today. Actually, the mild recovery of industrial production in Serbia began at the end of the 1990s. The share of industry in creating gross domestic product (**GDP**) began to grow. The bombing of the country by the NATO forces followed, which contributed to devastation of numerous industrial capacities.

The last decade of the prior century was characterized by the total collapse of economic and industrial development of Serbia. Former socialist countries, Serbia among them, entered the transition phase. The transition should have lead to leaving the etatistic and building market-based economic sytem. “By entering the transition process, the industry of these countries faced numerous problems that led to the drastic decrease in industrial production with numerous economic and social consequences, termination of production in some branches and numerous industrial enterprises. Hence, this led to the deindustrialization of these countries.” (Božić 2009, 423). The global economic crisis additionally made the problems larger.

In the contemporary transition period, since 2001, the total denidustrialization of Serbia has been done. The question remains whether the industry can become a driver of the economic development again, whether the reindustrialization process and what kind of strategy at that can create the conditions for production growth, employment growth, reparement of deficit in



foreign trade exchange etc. Additionally, the question is raised: what is the mechanism that can incite such a process and what is the role of the state in such circumstances, i.e. what is the role of industrial policy measures?

### **1. The deindustrialization of Serbia and Its consequences**

Some of the most developed countries in the world (Germany, Japan etc) have been in the deindustrialization process over the several decades. This process is in compliance with the known regularities of economic development.<sup>1</sup>

The deindustrialization process, actually, denotes the decrease in the share of industry in creating gross domestic product and employment of a country. This regular development trend should lead to post-industrial society as a higher stage in the industrial development of humankind. At this stage, the service sector dominates in the creation of domestic product and job security, whereas the importance of industry in the total development has not decreased (Savić 2010, 12). This phenomenon is primarily characteristic of countries with highly developed industries and is the consequence of their strong scientific and technological progress in the area of industry. When Serbia is in question, this is not the case, unfortunately.

The deindustrialization process can be practically reflected in: (1) relative decrease in the share of industry in the domestic product, whereby the growth of industrial production is slower than total domestic product at the expense of other sectors, primarily the service sector; (2) growth stagnation of newly industrial value added, with mild or moderate growth of the domestic product or (3) decrease in the newly industrial value added, with the growth or stagnation of the domestic product. The second and third phenomenal process modes of industrialization are characteristic for Serbia. Most analysts relate this process to the economic transition process and to the change in ownership structure. However, the deindustrialization of Serbia emerged, when the economic transition had not even started.

The period of growth of industrial production and its large share in creating gross added value as well as in foreign trade exchange in Serbia in the 1980s was halted by a big debt crisis and by the imposition of the MMF stabilization model as well as by the decrease in credit resource inflow, the decrease in total aggregate demand and the increase in inefficiency of the whole economy. After that, at the start of the 1990s, the sanctions of the international community were imposed on Serbia, which led to the impossibility of exporting goods and services as well as to large business costs and unprecedented hyperinflation.

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<sup>1</sup> At the beginning of the development of economy, agriculture had the largest share in creating gross domestic product. In the mid phase of economic development, the most dynamic is the development of the industry, while in the epoch of the so-called “advanced” economic development the leading place is kept by the tertiary sector, i.e. the service sector.

The mild recovery of the industry began after 1995, precisely, in 1997 and 1998, owing to the assets gained through selling a part of Telekom, but also through started reforms. The share of the industry in the domestic product increased and turing to export activities began. In 1999, a three-month bombing of the country by the 19 most developed countries led to devastation of industrial capacities and infrastructure. The situation led to the drastic decrease in the material scope of industrial producation and in Lj. Savić' words: "...to a definite failure of the applied industrialization model in Serbia. Generally accepted point of view is that the collapse of the Serbian industry came about, because of the difficulties Serbia experienced in the last decade of the 20<sup>th</sup> century. In view of the circumstances, I think that the Serbian industry would have fallen into the crisis even if there had not been for the sanctions of the international community and savage destruction of its capacities in 1999, however, the crisis itself would not have been so deep." (Savić 2009, 2). The real catastrophe in the Serbian industry development started at the beginning of the current century. The share of the industry in creating GDP drastically decreased (Table 1).

**Table 1. Developments of a relative share of the industry in creating GDP in Serbia in the period 1998-2009**

| Year | % Share | Year | % Share | Year | % Share |
|------|---------|------|---------|------|---------|
| 1998 | 34,8    | 2002 | 23,3    | 2006 | 18,3    |
| 1999 | 34,0    | 2003 | 21,7    | 2007 | 17,8    |
| 2000 | 26,8    | 2004 | 19,3    | 2008 | 19,2    |
| 2001 | 24,8    | 2005 | 18,4    | 2009 | 16,7    |

*Source:* Statistical yearbook of Serbia, miscellaneous years, RZS

After the October revolution in 2000, the reform authorities accepted the new development concept - "Washington Consensus". The aim of this concept was to establish macroeconomic stability in a short period of time.<sup>2</sup> The concept was based on the most important principles of the transition economy such as deregulation, liberalization and privatization. The market was fully liberalized, the borders for free competition of foreign competitors were opened, the enorm export of mass consumption goods followed as well as the increased turning of public into private property. These were the main drivers of building new transitional model of industrial and economic development in Serbia. Under the circumstances, the economy and market were sent a signal about whether a range of activities would pay or would not pay off. The import of everything was favoured and the lagging of export followed. This reflected on the developments of industrial production as well as on the share of the industry in creating GDP.

<sup>2</sup> „Washington Consensus“ is a widely accepted term denoting a set of neoliberal policies implemented by the World Bank, International Monetary Fund and the World Trade Organization.

## The Necessity of the Export-Oriented Reindustrialization Strategy of Serbia

**Table 2. Developments in the industrial production  
of dominant industrial branches in comparison to 1998**

|   | 1980. | 1990. | 1998. | 2000. | 2005. | 2008. | I-V/2010. |
|---|-------|-------|-------|-------|-------|-------|-----------|
| Pr. of food products                                  | 110   | 116   | 100   | 95,6  | 106,6 | 117,5 | 108,3     |
| Pr. of tobacco products                               | 135   | 115   | 100   | 111,3 | 129,7 | 140,2 | 128,2     |
| Pr. of textile yarn and fabric                        | 183   | 205   | 100   | 89,4  | 53,7  | 43,2  | 37,4      |
| Pr. of leather and leather articles                   | 127   | 149   | 100   | 72,7  | 22,4  | 16,7  | 12,9      |
| Pr. of clothing articles and fur                      | 223   | 199   | 100   | 70,8  | 36,2  | 34,1  | 24,5      |
| Processing and wood products and cork                 | 150   | 137   | 100   | 91,2  | 32,8  | 32,8  | 15,1      |
| Pr. of cellulose, paper and manufacture               | 131   | 130   | 100   | 100,6 | 87,1  | 95,0  | 104,0     |
| Issuing, printing and reproduction                    | 147   | 138   | 100   | 59,0  | 50,3  | 62,5  | 70,3      |
| Pr. of coke and oil derivatives                       | 102   | 92    | 100   | 47,7  | 123,6 | 121,8 | 98,0      |
| Pr. of chemicals and chemical products                | 45    | 75    | 100   | 58,4  | 92,6  | 110,1 | 95,7      |
| Pr. of rubber and plastic products                    | 39    | 39    | 100   | 84,7  | 118,7 | 121,8 | 100,4     |
| Pr. of products of other minerals                     | 124   | 76    | 100   | 91,2  | 82,6  | 84,0  | 63,4      |
| Pr. of basic metals                                   | 65    | 92    | 100   | 63,6  | 108,4 | 134,8 | 151,1     |
| Pr. of metal products, excluding machines and devices | 228   | 195   | 100   | 93,6  | 91,1  | 113,6 | 92,4      |
| Pr. of other machines and devices                     | 526   | 1361  | 100   | 77,2  | 61,6  | 67,1  | 50,1      |
| Pr. of office and computing                           |       |       | 100   | 207,7 | 0,2   | 0,2   | 0,1       |
| Pr. of other electric machines                        | 108   | 98    | 100   | 84,6  | 97,5  | 118,6 | 101,5     |
| Pr. of radio, TV and communication equipment          | -     | -     | 100   | 76,2  | 33,5  | 9,6   | 3,9       |
| Pr. of precise and optical instruments                | -     | -     | 100   | 92,6  | 55,6  | 33,2  | 18,8      |
| Pr. of motor vehicles and trailers                    | 203   | 238   | 100   | 91,6  | 99,7  | 76,7  | 80,3      |
| Pr. of other means of transport                       | -     | -     | 100   | 61,7  | 41,2  | 72,5  | 65,9      |
| Pr. of furniture and similar products                 | 221   | 188   | 100   | 93,2  | 78,7  | 150,1 | 102,2     |
| Recycling   |       | 200   | 100   | 52,8  | 42,5  | 67,4  | 84,3      |

*Source:* Statistical yearbook of Serbia, miscellaneous years, RZS

The analysis of the developments in the industrial production of dominant industrial branches in the period 1980-2010 (Table 2) reveals that only few industrial branches have a larger production and therefore a larger gross added value in comparison to the time of thirty years ago. Even the food industry, which is considered a vital industrial branch in comparison to other industrial branches, achieved in 2010 approximately the same production as in 1980.

The metallurgy complex lost 5 times the scope of production it had in the early 1980s. The production of basic metals has increased in this period primarily

as a result of the US Steel's work (the prior Sartid had no market potential in the 1970s and 1980s). The weight that the iron and steel productions have in the total statistical account of industrial production is of that kind that a larger growth of steel production actually would drive the total growth of industrial production. However, from the perspective of real analytical values, this has no relevance whatsoever.

Total industrial production decreased in the period 2000-2010 by 2,4 times in comparison to 1990. Practically, during the whole ten-year period, from the change of authorities in 2000 to the present day, except in 2008, Serbia experienced a totally stagnant industrial development. It has a low level of activity and a large number of branches and from an economic point of view, there is no reason for it to survive the upcoming period. Actually, a largest number of industrial branches have no sustainable growth rate. Additionally, the majority of industrial branches have been supported by borrowed financial assets, with high interests to be paid, with the exchange rate indexation. Debt risks are enormous and a large number of enterprises are heading towards bankruptcy. The industry does not invest the defined equipment amortization into its business activity, which makes it totally technologically inefficient and unprofitable. Some of the reasons for this state are the fall and stagnation of investment in the basic funds and the decrease in demand and export.

A total lack of growth of investment in basic assets is evident in the industry. Gross investments in 1993 were not exceeded as far as 2005. In the period 2005-2009, there was a mild growth of investment, but primarily as a result of *greenfield* investment on part of foreign investors. In contrast to the industry, civil engineering, for example, recorded a ten times investment growth, trade also (shopping moles building) and other sectors such as banking and telecommunications etc. However, one should have in mind that all these activities, excluding agriculture and industry, produce the so-called non-exchangeable assets, that is assets that are not intended for international exchange and which improve the external position of the country. The activities of the real sector, whose products are intended for international exchange, are unfortunately in crisis in Serbia. Serbia fell prey to the so-called "Dutch disease", i.e. the foreign capital inflow led to the disturbance of external position of the country. This reflected on its export potential.

In 1990, for example, over the half of export goods included industrial products of higher processing phase (machine building products, vehicles, finished products...). As early as 1997, there was a significant recomposition of export to products of relatively low processing phase (about 40 per cent), with smaller gross added value. In 2009, products of low processing degree, with a small gross added value, had a dominant share in export. This share was in 2009 as well as in 2010 over 60 per cent in the area of reproduction products, i.e. products intended for further processing, upgrading etc (Vesti 2010).

### **The Necessity of the Export-Oriented Reindustrialization Strategy of Serbia**

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The share of industrial products of higher processing phase in the structure of Serbia's export inverted itself just in a decade. Today the predominant in this structure are iron, steel, corn, raw and frozen fruit. The only greatest export asset of the industry are medicines, i.e. pharmaceutical products. However, their export in 2010, despite the increased size, was far below the export level of the late 1980s and the early 1990s. Aside from that, the export offering of the Serbian industry is not complementary to the export demand of the countries in the largest Serbian markets. This relates primarily to the European Union, CEFTA countries as well as Eastern European market countries-Russia, Ukraine, Belarus etc. Actually, this primarily concerns the export demand of the European Union. The situation is somewhat better with CEFTA, but the Serbian industry has still to adapt its export offering to other markets.

One can say, without hesitation, that one of the defeating results in the economic development of Serbia in the prior ten-year period (and longer) is deindustrialization, and one of the expected results in the upcoming ten-year period is reindustrialization. During the average annual economic growth of 5,4 per cent (in the pre-crisis period of 2001-2008), the services grew at the rate of 6,6 per cent, and the industry at the rate of only 1 per cent. The industry produced in the pre-crisis year of 2008 slightly more than in 2000, but still lesser than a half so in comparison to twenty years ago. (Vesti 2010). A slightly positive contribution to the industrial growth of the gross domestic product was nulled in 2009. The share of the manufacturing industry in creating the gross domestic product amounts to only 13% and is thus the smallest in the region. The number of the employed workers in the industry was halved at the start of the economy transition. At the beginning of the 1990s, there were 1.067.000 workers employed in the industry (40 per cent of the total of employed workers), and 458.781 workers in 2007 (23 per cent of the total of employed workers) (Savić 2008, 117). The structural changes in this economic area have been scarce and tend to slow down, whereas the losses keep on piling up.

The deindustrialization process in Serbia was enhanced by: unreal foreign exchange rate and overated dinar, early and intense foreign trade and financial liberalization, obsolete technology, devastated capacities during NATO bombing, unreformed public sector, high political risk, low inflow of foreign direct investment, and by the wrong concept of the privatization of economy as well.

The privatization process has to the largest extent influenced the Serbian industry's moving backwards. The undertaken privatization has not contributed sufficiently neither to enhancing effectiveness of the industry's business activity nor to new employments. The problems of post-privatization restructuring emerged; hence, 40 per cent of privatized enterprises made unprofitable business in 2008, because of high indebtedness and accumulated losses. New jobs were opened mainly in the sectors whose products are not intended for exporting (financial mediation, trade, real estate business, renting and other services). The

processing industry in Serbia has lost during a ten-year transition period almost a half of industrial workers, their number in the September of 2010 amounting to 305.698 (Statistical Office of Serbia).

The privatized industrial enterprises did not enhance their business effectiveness (as a logical consequence of the change in property structure), among else, because new owners were not interested in intensifying the existing production. The industry has a slower capital turnover and requires higher level knowledge and managerial skills, which domestic private owners neither have nor can acquire in a short period of time. Only a small number of private enterprises have made better results than prior to the privatization process, mainly owing to foreign capital ownership (e.g. Slovenia, Croatia) since such companies do not have problems of bad privatization (production decrease, plant termination, layoffs etc).

The deindustrialization of Serbia will leave the following consequences in the near future: (1) further disturbance of foreign trade exchange, i.e. impossibility of intensifying export offering of industrial products of larger added value, (2) stagnation and further real increase in unemployment, (3) slower substitution of living for dead labor, since the greatest number of workers is employed by industrial enterprises, where the amortization degree is relatively limited, (4) real sector is at a loss and supporting activities (transport, services, consulting, trade) are intensified, etc. For all the above mentioned, the reindustrialization imposes itself as a necessity.

## **2. The Necessity of Serbia's Reindustrialization**

Creating balanced industrial structure, in each economy, represents a long term process that requires strategic planning and continuous education. If we look at the fact that some neighbouring transition states have much more employees in the industry and that almost all of the transition economies have succeeded in maintaining the industrial employment, it is more than enough to fathom the problems that the Serbian economy is facing.

The success of transition economies, such as Slovenia, Czech Republic, Slovakia and Hungary, that reflects a dynamic economic growth, is based on investment growth and a larger export of goods and services. Hence, the most important element of their economic growth are the undertaken structural reforms on the basis of which it has come to industrial restructuring. This restructuring has led to the dynamic growth of those branches grounded on the use of modern technology and economies of scope (electroindustry, precision instruments production, motor vehicle production). However, that is not the case with Serbia.

The deindustrialization of Serbia would not have been such a problem if the service sector had developed faster and annuled the negative trends in the industry. However, 95 per cent of the export in Serbia is attributed to the products

of the manufacturing industry. Even if the services that could have been exported had developed faster (software design, for example) the importance of goods in exporting would have dominated whatsoever. Additionally, the current crisis conditioned the slowdown of foreign capital inflow, so the credits and foreign direct investment missed out. Considering that currently we cannot earn much foreign currency (while their price grows, i.e. the foreign exchange grows), It is time we sobered and turned to production, i.e. industry. This leads to the idea of reindustrialization and the post-crisis model of economic growth and development in Serbia (FREN 2010, 181). In this context, the reindustrialization implies, first and foremost, the revival of the manufacturing industry.

Within the processing industry, according to data from 2009, the highest values are created by the food industry - 23,2 per cent, chemical industry - 9,2 per cent, basic metals - 6,4 per cent, and non-metallic minerals, oil derivatives and rubber and plastic industry participate with 3 per cent (FREN 2010, 180). In contrast to the successful transition economies, where the share of the manufacturing industry in GDP is from 20 to 30 per cent, this share in Serbia in the period 2001-2009 decreased from 18 per cent to 13 per cent (FREN 2010, 181).

In the structure of the Serbian industry, the labor intensive subsectors prevail. The low- tech and medium-low tech subsectors employ 75 per cent of workers, 90 per cent of enterprises work. A persistent problem is the problem of technological restructuring and low labor productivity in enterprises of *medium-high-tech i high-tech* industry areas. (FREN 2010, 184). These are the sectors which, according to the post-crisis model of economic growth and development of Serbia until 2020, should be enhanced. They include the electronics industry, transport vehicles production, chemical industry and machine and device production. Namely, an average annual growth of industrial production of 6,9 per cent is projected, whereby the processing industry should increase on an annual basis according to the average rate of 7,3%. This would lead, until 2020, to the increase in the share of the industrial production in GDP up to 19,1%, i.e. the increase in the share of the manufacturing industry up to 14,7%. (FREN 2010, 185). Actually, the reindustrialization should lead to a relatively higher growth of those areas that lagged behind in the prior period as well as those areas that would bring higher added value.

Some of the industrial branches should, in the future, gain a priority status and some are to lose the place they held in the prior period (Savić 2007, 8).

a. The most important changes should be undertaken in energetically intensive production. The energy cannot be an important export asset of Serbia, considering the amounts of energy products, production price and environmental pollution as its production result etc. This means that this sector should be developed up to the level which provides the decrease in export dependency for available resources (e.g. coal).

b. Within ferrous and non-ferrous metallurgy, the degree of product finalization should be raised and the development of these branches secured through mutual investment with foreign partners.

c. Labor intensive industrial branches are seriously jeopardized by cheap product offering from the countries with enormously low cost of labor. Through property restructuring and technological modernization, these branches can, to the largest extent, employ less qualified labor and thus contribute partly to solving the problem of unemployment. The comparative advantage of Serbia is reflected in the fact that the EU market is similar to Serbia's in contrast to the countries of the Middle East. In comparison to Eastern European countries, there is a longstanding experience in manufacturing products of these industrial branches for the European market. In regard to the export to the European market, the agroindustry should be especially emphasized, the Serbian food industry precisely, that can become the most important exporter of ecologically healthy food.

d. The existing capacities, labor, basic raw materials, experience and knowledge are the solid foundation for the development of machine and transport vehicle production. The optimism concerning a faster development of machine building and the production of transport vehicles lies in the fact that the world export of machines and transport vehicles has an exceeding growth dynamics, which opens the possibility for our exporters to enhance their export offering through prices and otherwise. For successful implementation of such a development, it is necessary to undertake several measures such as: attracting foreign direct investment, encouraging complexer modes of international cooperation, intensified introduction of quality system as well as faster adoption of the EU standards (especially those that are defined in the so-called directives).

e. The sector of chemical and pharmaceutical industry, in relation to other sectors, has showed greater vitality in the last few decades. However, aside from the need to encourage the scientific research in these areas (especially in the pharmaceutical industry), it is necessary to create conditions for meeting strict requirements (quality system standards) concerning the health of people, animals and environment.

f. The electronics industry, informatics and telecommunication industry have a chance for development. The electronics industry must modernize its products through technology transfer or domestic development, and improve the quality of its products, without which it cannot have an export chance. In the first phase, it is necessary to accept affiliates of foreign firms and work according to their programs. After that, it is necessary to choose an area in which we can manufacture high quality products for the world market and act independently.

The state, its institutions and banks should actively participate in the immediate implementation of the mentioned aims. They must support the production of each new industrial product, especially the one evaluated as an



export economical in the long run. Only that way, it is possible to create the favourable ambience, in which innovators, manufacturers and exporters could develop on the sound economic grounds, through employing maximum efforts in enhancing the competitiveness of their products.

### **3. The Industrial Policy for Implementing Export-Oriented Reindustrialization of Serbia**

Although the role of the industry in the future economic development is undisputable, it is necessary to change its development strategy from the roots. Among all known and applicable industrialization strategies, the export expansion strategy would be the most acceptable for our country. Since the competitiveness of the Serbian industry is very low, the frontal collision with the highly developed industries would prove to be a temptation; hence, the chosen strategy must be supported with sophisticated measures of industrial policy (Savić 2009, 12).

A new industrial policy must be conceived in the reality, which implies extremely high investment in this sector. Under existing circumstances, that is not easy, especially in such a short period of time. Thus, the reindustrialization is necessary, but there is a danger of implementing the reindustrialization concept inappropriately.

The post-crisis development model clearly states that “the reindustrialization should be founded on a pyramidal structure of industrial policy.” (FREN 2010, 187). The structural reforms and infrastructural investment must be at the base of the pyramid. The “pyramid base” is the most important and must be firmly grounded, considering that it represents the precondition for building “the upper layers of the reindustrialization concept”. Building the medium layer of the industrial policy concept requires the formulation of non-selective policy, while the selective industrial policy is favoured in the upper layer of the pyramid.<sup>3</sup> The most important message is that the state should decrease the public consumption, orient itself from current to capital expenditures, reduce the bureaucratic impediments to and risks for business and investment and reform its public sector. It could thus enable the development of all economic areas and the industry as well. Such a development of industry cannot be a revolutionary one and the relations between economic segments in creating new value would not change essentially. But, it is

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<sup>3</sup> Unselective industrial policy strives to enhance the industrial development by means of numerous measures, i.e. instruments (fiscal, monetary-credit etc) that should have the same effects on all industrial complexes, branches and enterprises. Such an industrial policy can damage other activities, but does not create different treatment of certain complexes, branches and enterprises within the industry. Selective industrial policy is directed towards one part of industry – complex, branch or some territorial whole (region). The basic aims of such an industrial policy could be, for example, restructuring branches afflicted by the recession, inciting the development of the so-called propulsive industrial branches or enterprises, enhancing R&D in the area of the so-called totally new industry etc. (Gligorijević et al. 2008, 117)

possible to stop its downfall through sensible and reform measures. If such measures would miss out, we would retreat to non-market and bad asset allocation and management principles. No instruments of industrial policy would then give results. It is thus necessary for the state to support development-oriented programs in these areas and help the overcoming of the consequences made by inadequate market mechanism. The target branches (chemical industry, machine and device production, transport means production and electronics industry) should include the food industry, given its past results and the possibility of its expansion in the future.

The industrial restructuring, as a process of transferring from labor intensive to technologically intensive production, is a necessary precondition for achieving the growth of production and export. The reason is the fall of prices of labor intensive products that dominate in the export of countries.

The predominant view, formed on the basis of a great number of research, is that the relationship between a country's development and its specialization in the export has the „U“ shape. This, actually, means that a high specialization (that is, low diversification) of the export is related to the phases of undevelopment and high development, while the low specialization (and high diversification) of export is required for moderate (un)developed countries that want faster development. In such a diversification, the leaps on the technological ladder are not possible, however, step-by-step approach is possible, meaning that evolutionary changes are possible. The countries that succeed in raising the technological export intensity record a higher degree of economic growth (FREN 2010, 189).

For the purpose of more efficient implementation of the reindustrialization of Serbia, there stand serious assignments in front of the creators of industrial and economic policy as a whole. They involve the creation of conditions for foreign investors and FDI inflow, in compliance with all the relevant institutional frameworks as well as real foreign exchange guarantee for securing export stimulation for industrial production. Industrial policy measures should gradually and carefully secure the liberalization of foreign trade regime, through decreasing the customs rates and limited use off-duty customs protection. Tax policy should stimulate domestic and foreign investment. Also, the reinvestment of the realized gain should be stimulated, thus increasing the investment significantly, i.e. production, employment and export (Savić 2010, 324). Ecological taxes, tax relief and ecological standards must gain in importance as part of the instruments of industrial policy that should be intended for environmental protection and human environment protection. More active measures must be undertaken intensively in aligning Serbian standards with international standards, considering that this is a necessary precondition for developing economic ties with the developed world.

Serbia, under such industrial development, is not in the state to compete with sophisticated goods in the world market, but can develop cooperative relationship with large foreign manufacturers. It is thus necessary to maximize the profitable export and to secure the restructuring of the industry and economy as a

### **The Necessity of the Export-Oriented Reindustrialization Strategy of Serbia**

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whole that will perspectivevely enable the Serbian economy to offer new i.e. characteristical products that will perspectivevely enable Serbia to successfully integrate into the EU economy. In that sense, it is necessary to identify industrial sectors and programs that can incite the development; hence, the Serbian industry can in the short period of time offer new i.e. characteristical products, which can secure a larger share in the world trade exchange.

The primary assignment in the industrial development of Serbia is solving three groups of problems, such as: (1) low level of technological and market capability of industrial capacities and production lines (assortment); (2) business inefficiency (which is in correlation with unsatisfactory level of productivity and decrease in production costs) i (3) unsatisfactory level of product quality and service quality in compliance with internationally acceptable competitive levels (the necessity of establishing marketing elements - brand, design etc) (Gligorijević, Bošković 2009, 112).

All the mentioned and many other problems point to the need for Serbia to define its own concept of industrial policy that would affect indirectly within the market mechanism the direction of industrial production and allocation of resources for future industrial development. This concept must be based on a complete system of export-oriented market economy-an open economy. Open economy implies the establishment of direct connection between the levels of domestic saving and investment scope. This means that available domestic accumulation loses its role as key factor determining the scope and structure of potential investment as well as the economic growth. Through engaging foreign capital, the higher investment growth can be secured than that allowed by domestic accumulation fund. Surely, one should make a difference between individual sources (direct investment, portfolio investment, mutual investment, bank credits, international financial institutions' credits etc). This is of special importance for the Serbian industry that will have to use international accumulation in the further development process, because of the unsatisfactory scope of domestic accumulation, that is be a participant in the international financial market. Its further growth and development will depend on its competitiveness, meaning that its growth rate will be determined by the growth of its foreign trade exchange; therefore, the industrial policy must be conceived and directed towards attaining this goal (Gligorijević, Bošković 2009, 112).

### **Conclusion**

The last decade of the prior century witnessed the final failure of the applied industrial development model in Serbia. The problems, with regard to this, additionally afflicted Serbia due to the global economic crisis. In the contemporary transition period, Serbia has faced the deindustrialization of the country since 2001.

Because of numerous and large problems of the past industrial and economic development as a whole, our country must orient itself towards the export-oriented reindustrialization strategy, thus the necessary prerequisites for production growth, employment and decrease in foreign debt would be created. Hence, the first step is to start with the reindustrialization process and export-oriented reindustrialization strategy at that. The realization of the export-oriented industrial development strategy and change in its basic development directions require defining a „new“, active and sophisticated industrial policy.

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### NUŽNOST IZVOZNO ORIJENTISANE STRATEGIJE REINDUSTRIJALIZACIJE SRBIJE

**Rezime:** Industrija kao privredna delatnost, odnosno industrijalizacija kao proces transformacije privredne strukture jedne zemlje, na bazi razvoja industrije, odigrala je presudnu ulogu u posleratnom privrednom razvoju istočnovevropskih zemalja, pa i SFRJ (Srbije). Zahvaljujući visokoj investicionoj aktivnosti, u ovoj oblasti materijalne proizvodnje, ostvareni su impresivni rezultati. Period rasta industrijske proizvodnje u Srbiji je zaustavljen osamdesetih godina, a do konačnog sloma primenjenog modela industrijalizacije došlo je u poslednjoj deceniji dvadesetog veka. Početkom ovog veka, sa procesom tranzicije privrede, nastupila je potpuna deindustrijalizacija zemlje. Dodatne probleme, u vezi sa tim, nanela je globalna ekonomska kriza. Ovaj rad ima za cilj da ukaže na posledice procesa deindustrijalizacije, kao i na značaj procesa reindustrijalizacije, i to izvozno orijentisane strategije reindustrijalizacije Srbije. Da bi se taj proces podstakao, ključnu ulogu u tome mora odigrati država, putem mera nove, aktivne i sofisticirane industrijske politike.

**Ključne reči:** industrija, industrijalizacija, tranzicija, deindustrijalizacija, izvozno orijentisana strategija, industrijska politika.



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## GENETICALLY MODIFIED PLANTS AS A FACTOR OF GAIN GROWTH AT THE FARM LEVEL

**Tatjana Papić-Brankov, PhD\***

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**Abstract:** *Genetically Modified (GM) plants have been grown on significant areas since 1996. This article considers the distribution of global impact (gain) realized through growing of the first generation of GM crops. Economic research starts with proofs that GM plants can generate the gain at the farm level if the serious production problems are solved and farmers have free access to the new technologies. Independently of the differences in evaluation of values and distribution of economic benefit, one third of global gain in average (37%) belongs to the innovators (gen creators and seed distributors) while two thirds (63%) belong to farmers and small consumers.*

**Keywords:** *GM, biotechnology, gain, farm*

### Introduction

The green revolution, campaign which in one decade (1965 to 1975) surrounded over 40 millions hectares, mainly of food grain (as rice and wheat) in undeveloped countries of tropic and sub tropic region has changed the rate between the vegetative and generative plant parts, by lowering crop stalk in contribution of generative parts, significantly increasing the grain income of the main agricultural plants. This campaign has helped to change the agriculture into the agribusiness; higher demands for fertilizers, pesticides and mechanization can satisfy transnational corporations only. Intensified agricultural production induced numerous problems due to growth of monocultures and narrow genetic variability of sorts and hybrids. Genetic Engineering (GI) and implementation of GM plants in to the markets have chosen problem solving direction.

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The very first plant in 1994, the first GM whole food, the Flavr-Savr tomato was released for sale in the market. Significant growth of such GM food production started in 1996. The total of GM food area in the world in last fourteen years is approximately 950 millions hectares (see Tab. 1.). The amount of 134 millions of hectares, reported for the last year under the GM whole food represents huge increase of 78 times over the modest 1.7 millions of hectares in the beginning in 1996 and express that the Gen Revolution certainly represents the quickest adopted biotechnology in the modern history of mankind.

**Table 1: GM crops growing area in total, worldwide**

| Year      | 1996 | 1997 | 1998 | 1999  | 2000  | 2001  | 2002  |
|-----------|------|------|------|-------|-------|-------|-------|
| Area (ha) | 1.7  | 11.0 | 27.8 | 39.9  | 44.2  | 52.6  | 58.7  |
| Year      | 2003 | 2004 | 2005 | 2006  | 2007  | 2008  | 2009  |
| Area (ha) | 67.7 | 81.0 | 90.0 | 102.0 | 114.3 | 125.0 | 134.0 |

*Source: James, C. (2009)*

In the second year the growing area under the GM food increased almost 5.5 times over the first year. In the third year, the annual increase has been 150% higher compared to the second year, in the fourth year the growth was 40% higher over the third one. In the fifth, crucial year (2.000) only the modest growth of 10% has been recorded, what was induced by EU moratorium on import of transgenic plants and thus has reflected on USA farmers and their seeding plans. Afterwards, in the next few years the slight increase has been recorded as rising trend of 19%, 11%, 15%, 20%, 13% and 12% in 2007, compared with 2006. The lowest growth rate recorded in 2008 and 2009, 9.3% and 7.2%, respectively.

Yet the GM plants diffusion is impressive and very uneven because only eight countries in the world (USA, Argentina, Brazil, Canada, China, Paraguay, India and SAR), four crops (soya bean, followed by maize, cotton and canola) and only two characteristics (herbicide-tolerant and insect-resistant) make these four crops take up more than 99% of the global biotech area. Although the one half of all GM plants areas are situated within the the USA territory an 89% of global GM food areas are in both Americas, the tendency of transgenic plants widening is remarkable. The growing of GM is noticeable in India, China and SAR. Soybean is the leading GM food from the very beginning (52% of total GM area) and its herbicide tolerance is the most important modified characteristic (62%) (Papić, Lovre 2008).

### **Biotech Transnational Corporations**

Transnational agrochemical companies have been transformed through buying of seed companies, (at the beginning in industrial countries and, afterwards, through buying in developing countries) into leading edge “life science” companies like Du Pont, Syngenta, Aventis (nowadays known as Bayer CropScience), Monsanto and Dow.

The adaptation of agreement on all aspects of trade in services and intellectual property (TRIPS) on the Uruguay Round, which is mandatory for all World Trade Organization (WTO) members to protect patents of biotech discoveries (products and processes) and plant varieties, for the first time assumes legal measures in protection of intellectual property giving strong stimulus to private sector investments into the biotechnology. The result: five transnational corporations are in possession of 71% agricultural biotechnological patents worldwide. Monsanto is the major owner of GM soya bean, GM cotton and canola gen which is resistant to glifosat herbicide, Bayer CropScience possesses patent over all GM plants which have Bt toxin insecticide and Syngenta has the exclusive license on Golden Rice. Monsanto is the most important biotech company, which created almost all crops placed in to the market worldwide resistant to glifosat herbicide with Roundup Ready trade mark and the majority of Bt crops (New Leaf, Bollgard, Yieldgard). Companies protect their own market position binding farmers by contract on an annual level for all and each seed supply, in reference they forbid them to keep the seed and lead each contract breaker right into the court (Papić 2008).

### **Economic Influence of Transgenetic Crops**

Transgenetic crops as any other technological innovation in agriculture have economic influence on farmers, consumers and society in general. The general economic influence of GM crops depends on numerous factors, among other thing depends on technological influence on agricultural measures and results, the consumer readiness to buy GM food and other GM products, legislative rules and market pricing. On the long run some other factors can influence to the distribution and volume of economic benefit, like industrial concentration in GM food production, for example. Those farmers who accepted the new technology at the very beginning can make the benefit due to lower production cost and/or due to higher productivity while all others might be in delay, in dependence on consumers and legislative frames and measures. Otherwise, in the case that the resistance of consumers will rise up, those farmers who didn't adopted new technology will be in competitive advantage. To simplify, in the case that consumers will accept GM food in general and if legal requests are not so hard those farmers who adopted the new technology will gain the profit and vice versa. In general, the consumers make economic benefit by technological innovations in agriculture due to lower prices



and/or higher quality of products. In the GM crops case, the situation is much more complicated, for two reasons. The first, the legislative frame influence: like the potential increase of production costs and disposal of GM food costs might rise up due to obvious signing of markets and market segregation. The second, those consumers who are exclusive opponents of such technologies might suffer the sever losses in the sense of well-being if they would be forced to consume GM stuff or suffer the economic losses if they would pay higher organic food just to be sure not to consume transgenetic crops and products. Thus, the influence of transgenetic crops on the society is complex and socially dynamic concept which is hard to measure.

GM crops will be widely accepted only if they bring the economic benefit to farmers. Profitability of GM crops at the farm level, especially in the developing countries, is under the influence of numerous economic and institutional factors and different agricultural characteristics as well. Economic researches starts to express that GM crops might generate gain on the farm level if they solve the serious production problems and if the farmers have approach to new technology. These conditions are fulfilled just in few countries up to now, which took advantage of innovations in private sector from the North and which have relatively developed research system on national level, legal procedures on biological safety, legal system of intellectual property protection and local market. Those states that are short in all these measures might be completely excluded from the Genetic Revolution.

The existing literature on influence of transgenetic crops on economy in developing countries is very limited simply because these plants are growing just for several years in several countries in the world. The data which would cover the time longer than two, three years are hardly accessible and the majority of studies included modest number of farmers into research base. The small stratum supplied with additional factors, like the weather influence, seed quality and quality of pesticides, the pest influence and farmers' skills make the judgment of efficiency and value of economic benefit and economic consequences induced by GM plants very hush. It might be necessary that farmers would spent several years to gather positive experience in new technology implementation (e.g. with GM cotton, pest resistant), to use it successfully; those farmers who adopted new technology earlier might profit more than those who would be late in implementation; the increase in number of farmers those who accepted new technology might induced further decrease in cost production and decrease in market prices, although it would mean that the farmers' profit would be reduced and the consumers benefit would rise up, too. The special danger lies in fact that the majority of GM crops are controlled by several great companies. It seems that these transnational corporations don't gather monopole based profits in the absence of competition and effective regulative there are no guaranties that it will not happen in the future (FAO 2004).

### **Genetically Modified Plants as a Factor of Gain Growth at the Farm Level**

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The next are the most important factors which provide free farmers' approach to new technology, under favorable economic conditions, supported by certain regulation: 1) national research capacity developed in sufficient manner, ready for evaluation and acceptance of innovations; 2) proactive public and/or private system of delivery; 3) transparent and reliable procedures dedicated to biological safety; 4) balanced policy of intellectual property rights. For all herbicide resistant and pest resistant crops is typical that farmers will save extra on applied chemicals and time spent in work necessary for their application. By cutting the production costs it is possible to achieve higher net income at the farm level and through more effective pest and weeds control it is possible to achieve higher gains. Economic benefits in the farm depend on the new technology cost and possible income based on it, in comparison with the alternative and previous technologies. Wider analysis of economic results and distribution of GM varieties has to consider the possibility of production growth in the case that the new technology prices would go down, which would, furthermore, bring the benefit to consumers through price reduction. Purchasing of seeds and other inputs by farmers are changeable categories and consequently they change the prices especially in the case where suppliers of inputs keep the monopoly in the market. All these factors have common influence on the general economic benefit and its distribution between farmers, consumers and industry.

### **The Transgenic Cotton Production and Gain Distribution**

Having in mind that different kinds of farmers are involved into the GM cotton production in a large number of countries, which deal under different institutional and market conditions, analysis of this crop production leads to certain approximations on potential gains and challenges who are in front of these countries which already rise or will rise GM crops.

Using the standard economic model (Alston et al. 1995; Falck-Zepeda et al. 1999) the authors concluded that the gain amount and distribution are varying in time. The study was based on economic research of BT cotton production influence to the farmers in USA, consumers, suppliers of germ-plasma and foreign farmers in the period from 1996 to 1998. In the studied period, the American farmers increased their gain on annual level for 105 millions US\$ in average thanks to the production cost reduction and increase in effective gain, while all other foreign farmers have lost around 15 millions US\$ due to lower selling prices of the cotton in the market. Through the reduction in production cost (what led to further drop in selling cost of products) the consumers in the states and in other countries saved around 45 millions US\$ on the annual level, while the industry (mostly Monsanto and Delta&PineLand) gained approximately 80 millions US\$ by selling the Bt technology. In the total average annual economic gains in the analyzed period (approximately 215 millions US\$) farmers from USA participated with 46%, industry with 35% and consumers with the rest of 19%. The total losses of

foreign farmers have been smaller than 1% of total net gain in USA realized through growing of Bt cotton.

Through production of GM cotton the higher gain has been achieved in five developing countries (Argentina, China, India, Mexico and SAR) with lower usage of pesticide and bigger profit, in comparison to conventional production in spite of higher seed expenses (Table 2).

**Table 2: Economic results of GM cotton growth in 5 developing countries<sup>1</sup>**

|                                       | Argentina | China | India | Mexico | SAR |
|---------------------------------------|-----------|-------|-------|--------|-----|
| <b>GAIN</b>                           |           |       |       |        |     |
| kg/ha                                 | 531       | 523   | 699   | 165    | 237 |
| %                                     | 33        | 19    | 80    | 11     | 65  |
| <b>Decrease of chemical treatment</b> | 2.4       | ...   | 3.0   | 2.2    | ... |
| <b>Gross income growth</b>            |           |       |       |        |     |
| US\$/ha                               | 121       | 262   | ...   | 248    | 59  |
| %                                     | 34        | 23    | ...   | 9      | 65  |
| <b>Reduction of pest control fees</b> |           |       |       |        |     |
| US\$/ha                               | 18        | 230   | 30    | 106    | 26  |
| %                                     | 47        | 67    | ...   | 77     | 58  |
| <b>Seed cost increase</b>             |           |       |       |        |     |
| US\$/ha                               | 87        | 32    | ...   | 58     | 14  |
| %                                     | 530       | 95    | ...   | 165    | 89  |
| <b>Total expenses change</b>          |           |       |       |        |     |
| US\$/ha                               | >99       | <208  | ...   | <47    | >2  |
| %                                     | >35       | <16   | ...   | <27    | >3  |
| <b>Profit increase</b>                |           |       |       |        |     |
| US\$/ha                               | 23        | 470   | ...   | 295    | 65  |
| %                                     | 31        | 340   | ...   | 12     | 299 |

<sup>1</sup> **Source:** Argentina (Quaim, M., Janvry, A., 2003), data based on research of 299 farmers through two major Provinces with average value aggregated in two vegetation periods – 1999/2000 and 2000/2001. China (Pray, C., E., Huang, J., Hu, R., and co. 2002) based on the analyze of all farm producer with Bt cotton production, in three vegetation periods – 1999 to 2001. Analyze aggregated data derived from 337 parcels covered with Bt cotton and 45 covered with ordinary cotton, for the year 1999; 494 and 122 parcels in year 2000; 542 and 176 parcels in year 2001. India (Quaim, M., Yilberman, D., 2003) based upon experiments done in 7 Indian states in only one vegetation period – 2001. . Analyzed aggregated data derived from 157 parcels covered with Bt cotton and 157 covered with ordinary cotton. Mexico (Traxlaer, G., Godoy-Avila, S., Falck-Zapeda, J., and co. 2003) based on data gathered from two farms in Comarca Lagunera region in two vegetation periods – 1997 and 1998. SAR (Bennett, R., Morse, S., Ismael, Y., 2003) based on data gathered from several farms in Makhathini Flats region in three vegetation periods – 1998/99 to 1998/2000/01. Analyzed 1.283 farms in 1998/99, 441 farms in 1999/00 and 499 farms in 2000/1.

### Genetically Modified Plants as a Factor of Gain Growth at the Farm Level

According to up-to-date insights, transgenic cotton varieties are neutral in respect to the adaptation rate and gain per hectare, in other words, the small farmers drew benefit greatly, more than great farms, which is not unexpected fact, only having in mind simplification of their works. The relative performance of Bt cotton is even better when it is produced within the small farms in developing countries where the pathogen infection rate is high and effective insecticides are not widely available (Qaim, Janvry 2003). This conclusion is supported with fact that the greatest gain increase was in Argentina, China and India.

### Global Benefit at the Farm Level

In the period between 1996 and 2004 GM farms increased the benefit for 19 billions US\$ in comparison to conventional (see Table 3) The greatest income increase within that period was done in soya bean production, 9.3 billions US\$ worth. On the second place, there is the gain realized in cotton production, 6.5 billions US\$ worth, which is equal to amount of 12% cotton crops produced within these countries or equally to 5.8% of the global production of cotton. Significant increase is achieved in production of corn and canola. Combined production of two maize sorts, the first one pest-resistant and the second one herbicide tolerant gave the gain increase of 2.5 billions US\$. The biggest income increase at the farm level has been achieved in the herbicide tolerant soya bean production in Argentina and pest resistant cotton in China and USA. Income increase has been noticed over farms in developing countries: SAR, Paraguay, India and Mexico (see Tab. 4). Such growth was induced partially with the cutting of pest and weeds expenses (see Tab. 5).

**Table 3: Global benefit on the farm level (1996 – 2004) in millions US\$**

| Osobina      | Increase in farm income in 2004. year. | Increase in farm income (1996-2004) | Profit on the farm in 2004. year. as% of total value of these crops in countries that have adopted GM | Profit on the farm in 2004. year. as% of total value of global production of these crops |
|--------------|--|-------------------------------------|---|--|
| HT* soya     | 2.440                                  | 9.300                               | 5.6   | 4.0  |
| HT maize     | 152                                    | 579                                 | 0.6   | Manje od 0.5   |
| HT cotton    | 145                                    | 750                                 | 1.4   | 0.53   |
| HT canola    | 135                                    | 713                                 | 8.3   | 1.34   |
| IR** maize   | 415                                    | 1.913                               | 1.4   | 0.8  |
| IR cotton    | 1.472                                  | 5.726                               | 10.5  | 5.3  |
| Other        | 20                                     | 37                                  | N/a   | N/a  |
| <b>TOTAL</b> | <b>4.779</b>                           | <b>19.018</b>                       | <b>5.3</b>  | <b>3.1</b>   |

HT – herbicide tolerant plants

IR – pest resistant plants

Source: Brookes, G., Barfoot, P. (2005)

**Table 4: Income per farm (1996 – 2004)**

|                  | <b>HT<br/>soya</b> | <b>HT<br/>maize</b> | <b>HT<br/>cotton</b> | <b>HT<br/>canola</b> | <b>IR<br/>maize</b> | <b>IR<br/>cotton</b> | <b>Total</b> |
|------------------|--------------------|---------------------|----------------------|----------------------|---------------------|----------------------|--------------|
| <b>USA</b>       | 6.371              | 564                 | 746                  | 96                   | 1.626               | 1.301                | 10.704       |
| <b>Argentina</b> | 9.965              | N/a                 | N/a                  | N/a                  | 120                 | 16                   | 10.101       |
| <b>Brazil</b>    | 829                | N/a                 | N/a                  | N/a                  | N/a                 | N/a                  | 829          |
| <b>Paraguay</b>  | 80                 | N/a                 | N/a                  | N/a                  | N/a                 | N/a                  | 80           |
| <b>Canada</b>    | 55                 | 16                  | N/a                  | 617                  | 119                 | N/a                  | 807          |
| <b>SAR</b>       | 0.8                | 0.2                 | 0.01                 | N/a                  | 44                  | 11                   | 56.01        |
| <b>China</b>     | N/a                | N/a                 | N/a                  | N/a                  | N/a                 | 4.160                | 4.160        |
| <b>India</b>     | N/a                | N/a                 | N/a                  | N/a                  | N/a                 | 124                  | 124          |
| <b>USA</b>       | N/a                | N/a                 |                      | N/a                  | N/a                 | 70                   | 70           |
| <b>Argentina</b> | N/a                | N/a                 | N/a                  | N/a                  | N/a                 | 41                   | 41           |

*Source:* Brookes, G., Barfoot, P. (2005)

**Table 5: Decrease of applied pesticides in GM food production**

| <b>Properties</b> | <b>Decrease of applied<br/>active substances (mil<br/>kg)</b> | <b>Decrease of active<br/>substances, in %</b> |
|-------------------|---|--|
| <b>HT soya</b>    | 41.4  | 3.8  |
| <b>HT maize</b>   | 18.0  | 2.5  |
| <b>HT cotton</b>  | 24.7  | 14.5   |
| <b>HT canola</b>  | 4.8   | 9.7  |
| <b>IR maize</b>   | 6.3   | 3.7  |
| <b>IR cotton</b>  | 77.3  | 14.7   |
| <b>Total</b>      | 172.5   | 6.3  |

*Source:* Brookes, G., Barfoot, P. (2005)

Regardless of the differences in evaluation of values and distribution of economic benefit, one third of global gain in average (37%) belonged to the innovators (gen creators and seed distributors) while two thirds (63%) belonged to farmers and small consumers (see Tab. 6) (Demont 2006, 22-23). The most significant participation in total gain realized producers within the seed productive countries (China) and those who work in countries with weak legal mechanism of intellectual property protection (Argentina).

## Genetically Modified Plants as a Factor of Gain Growth at the Farm Level

**Table 6: Global distribution of transgenic crops in the first generation\***

| Country   | Crop      | Year      | Adoption (%) | Gain (m \$) | Gain distribution |            |                 |                   |
|-----------|-----------|-----------|--------------|-------------|-------------------|------------|-----------------|-------------------|
|           |           |           |              |             | Domestic farmers  | Innovators | Local consumers | Rest of the world |
| USA       | Bt cotton | 1996      | 14           | 134         | 43%               | 47%        | 6%              | 4%                |
| USA       | Bt cotton | 1996      | 14           | 240         | 59%               | 26%        | 9%              | 6%                |
| USA       | Bt cotton | 1997      | 20           | 190         | 43%               | 44%        | 7%              | 6%                |
| USA       | Bt cotton | 1998      | 27           | 213         | 46%               | 43%        | 7%              | 4%                |
| USA       | Bt cotton | 1996-1998 | 20           | 151         | 22%               | 46%        | 14%             | 18%               |
| USA       | Bt cotton | 1997      | 20           | 213         | 29%               | 35%        | 14%             | 22%               |
| USA       | Bt cotton | 1997      | 20           | 301         | 39%               | 25%        | 17%             | 19%               |
| USA       | HT cotton | 1997      | 11           | 232         | 4%                | 6%         | 57%             | 33%               |
| USA       | HT soya   | 1997      | 17           | 1.062       | 76%               | 10%        | 4%              | 9%                |
| USA       | HT soya   | 1997      | 17           | 437         | 29%               | 25%        | 17%             | 28%               |
| USA       | HT soya   | 1999      | 56           | 804         | 19%               | 45%        | 10%             | 26%               |
| USA       | HT soya   | 1997      | 17           | 308         | 20%               | 68%        | 5%              | 6%                |
| Canada    | HT canola | 2000      | 54           | 209         | 19%               | 67%        | 14%             | -                 |
| Argentina | HT soya   | 2001      | 90           | 1.230       | 25%               | 34%        | 0.3%            | 41%               |
| Argentina | Bt cotton | 2001      | 5            | 0.4         | 21%               | 79%        | -               | -                 |
| China     | Bt cotton | 1999      | 11           | 95          | 83                | 17         | 0               |                   |
| India     | Bt cotton | 2002      | 7            | 6.2         | 67                | 33         | 0               |                   |
| Mexico    | Bt cotton | 1998      | 15           | 2.8         | 84                | 16         | -               | -                 |
| SAR       | Bt cotton | 2000      | 75           | 0.1         | 58                | 42         | -               | -                 |
| SAR       | Bt cotton | 2001      | 80           | 1.2         | 67                | 33         | 0               | -                 |

\* Stated data are differ significantly because the author mentioned different studies.

*Source: Demont, M. (2006)*

### Concluding Remarks

The rapid development of biotechnology in the current period influenced noticeably the range of other scientific and technologic processes of industrial and

agricultural growth. Biotech became one of the key determinatives for global processes in economy, and a factor of survival for human society and whole environment. At the same time, it stimulates rising fear due to fact that the row economic motivation and effort for establishing of monopole position in the global market are the basic generators of GM food diffusion (Papić 2008). The main economic benefits have been achieved by private producers and great agricultural producers mostly in developed countries. It is more than necessary to modify current system of intellectual property protection due to providing guaranties of fair impact distribution and similar barriers of modern biotech transfer which have to be modified; research and development efforts have to be directed towards developing countries and poor farmers.

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**GENETSKI MODIFIKOVANE BILJNE KULTURE  
KAO FAKOR UVEĆANJA DOBITI NA NIVOU FARME**

**Rezime:** Genetski modifikovane (GM) biljne kulture proizvode se na značajnim površinama od 1996. godine. Ovaj članak razmatra distribuciju globalne dobiti ostvarene gajenjem prve generacije GM useva. Ekonomska istraživanja počinju da pokazuju da GM biljne kulture mogu generisati dobit na nivou farme, ukoliko rešavaju ozbiljne probleme u proizvodnji i ukoliko farmeri imaju pristup novoj tehnologiji. Nezavisno od razlika u proceni vrednosti i distribuciji ekonomske koristi, u proseku jedna trećina globalne dobiti (37%) pripala je inovatorima (kreatorima gena i dostavljačima semena), a dve trećine (63%) farmerima i malim delom potrošačima.

**Ključne reči:** GM, biotehnologija, dobit, farma







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## INTEGRATED MARKETING COMMUNICATIONS IN B2B COMPANIES' BRAND BUILDING

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**Abstract:** *The paper gives a theoretical and practical analysis of integrated marketing communications (IMC) in companies' brand building in the business market. Establishing brand in the business-to-business (B2B) environment is different from branding to the general audience. Understanding how branding works in the business market is thus a priority. The nature and complexity of business-to-business marketing requires a holistic brand approach that encompasses the creation of trust, confidence and comfort for all partners in the buying process. After literature review, the paper points out the analysis of the specific aspects of IMC in the business sector, in terms of the specificities of business-to-business (B2B) marketing communications, and development of companies' brand building. The purpose of this paper is to assess the unique role of IMC in successful companies branding in B2B marketing.*

**Keywords:** *Integrated marketing communications, B2B brand, companies' brand building, and promotion mix*

### Introduction

The communication environment in the 21<sup>st</sup> century has become more interactive, fragmented, chaotical and global. As such, it makes additional pressure on marketing and communicational strategies in companies. Today, companies have to find a way for sending consistent messages toward target audiences, both internal and external, with the goal of influencing shopping habits, and also with wish to obtain better market position. The concept of integrated marketing

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communications (IMC) helps managers with new tasks imposed by the surroundings. In this work, the specific aspects of integrated marketing communications in the business sector are analyzed, with special accent on specificity of B2B marketing communications in building and developing companies' brand.

Previous researches of integrated marketing communications were dominantly focused on analyzing companies with final consumers. This work takes as the goal the research of basic principles and problems of integrated marketing communications on business market and their impact on building and development of corporative brand. Literature gives opinion that brand development is rarely connected with business market, and that there is a lack of developed marketing communication in the field (Lamons 2000). This paper points to the importance of implementation of branding strategies on the business market. Companies in the business market, as business buyers, could be under the influence of rational and emotional values of the brand, which points to a need for creating emotional connection with buyers through functional characteristics.

### **Literature Review**

Since the mid 1980s, understanding and development of the concept of IMC was usually in theoretical area. Today, the concept is upgraded and practically applicable in customer-company relationship. However, the authors haven't still agreed about a definition of integrated marketing communications.

Traditionally, integrated marketing communications were defined as a process of coordinating instruments of marketing communications. The new definitions of IMC include strategical aspects of marketing communications integration. Kliatchko (Kliatchko 2008) define IMC as a business process of managing communications with strategical stakeholders, message content, communications channels, and results that are led by a target audiences. IMC was initially considered only as a communicational process that is used by company for creating a good image in the audience. Still, recently IMC is considered as an integrated approach to company communication with customers, business partners and the complete public. Special accent is placed on communication of all elements of company operations with the audience, which is used for creating reputation and image in the market.

Duncan and Everet (Duncan&Everett 1993) define IMC as a strategically coordination of all messages and media that a company undertakes for building and developing the brand. Cornelissen (Cornelissen, 2003) is first to make a difference between content and processes of integrated marketing communications. In his opinion, the concept of IMC implies marketing messages that impact on consumer's perception and business partners about company work and media, while process represents a business mechanism that serves as backup for activities

### **Integrated Marketing Communications in B2B Companies' Brand Building**

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of marketing communication, which implies planning of media, budget planning, campaign duration and measurement of communication effects.

There are two basic characteristics of the concept of IMC by Ognjanov (2009). One of them is the coordination of messages sent by different medias to different target groups, and the other characteristic is single communication strategy planning.

Kliatchko (2008) identified three major theoretical areas of IMC. The first one is IMC and problems of internal communications in company, the second area is IMC and branding process and the third are IMC and media planning, measuring of media impact and integration of different media.

Research studies about integrated marketing communications were primarily focused on the business-to-consumer market. Under the influence of globalization and other factors, the studies were also directed towards relations with business buyers as well as towards the influence which the characteristics of business market have on communications with this market. This paper has already pointed that the concept of IMC helps marketing managers in choosing marketing strategies in the highly competitive market, as in managing of complex relations with consumers and business partners. The studies emphasize a high difference in defining IMC strategies on consumers and business markets, which requires different strategic approaches in according to specific relationship in the certain market.

Gilliland & Johnson (1997) in their study explain the differences between strategies in the business market and consumers market, pointing out that the strategies of communications as well as the media of communications, are specific in this two markets and determined by relationship characteristics with consumers and business partners. This study emphasizes the need of specific planning of communications with consumers and business partners, according to the characteristics of this market. Also, the need for developing specific models of communications was emphasized. In developing communication models in the business market, one commences with existing models of behaviour of business buyers and the information processing, which influences the formation of attitudes.

The empirical study about business communication conducted by Garbor and Dotson (2002) gives review of relations between instruments of promotional mix in the business markets and their specific communicational functions. This study points out the significance of designing communications in accordance with the goals which companies want to achieve on market, as with the main business values which the company respects.

Another relevant study, conducted by Wickham and Hall (2006) analyzes the characteristics of integrated marketing communications in the areas of industrial clusters. The study points out that the characteristics of industrial cluster business determine the content and meaning of integrated marketing

communications, which companies in cluster conduct in the market, sending the message about their business. The study suggests that it is necessary for companies, to clearly point out, under conditions of global market competition, their differential advantages with which they reinforce their position in the market and build the advantage toward to concurrent companies. The members of cluster should be better informed about the benefits of IMC concept and possibilities of their implementations, in order to point out differential advantages of industrial cluster and cluster members. In this study, a special emphasize is placed on collecting and spreading marketing information within the cluster, which contributes to unique message present to numerous international buyers. Personal communications are contributing to strengthening the trust between companies, members of cluster, and external stakeholders.

As opposed to integrated marketing communications, a small number of researches is conducted in the area of corporate branding in the business markets. One of these studies, conducted by Shipley and Howards (1993) analyzes the strategies of brand developing in the B2B market, pointing out the impact of companies' names on their position in the market.

Sweeney (2002) points out that the company with strong developed brand in the public has more consumers as well as business partners, interested in cooperation. Strong business brand has influence on all phases of the business buyer's decision making process, but primarily on decision making about list of suppliers, shorter negotiations and decision making about offers and the related services. Mudambi (2002) represented B2B model of branding which is based on key characteristics of companies' offer, which business buyers consider important.

Webster and Keller (2004) studied similarities and differences between branding strategies in the consumer and business markets. They analyzed the basics of the branding process, characteristics of business marketing strategy, characteristics of business markets, specificity of business buyer's behaviour (classes of buying situations, roles in buying centre and the dynamics of business procurement) and business buyer's relationship management. They suggest basic strategies of branding for B2B brands and offer instructions for successful building and developing of brand in this market.

Belanger, Syed and Jount (2007) investigated the influence of internal communications on the building of companies' brand, pointing out the influence of institutional activities in accordance with companies' vision, as well as in accordance with social and cultural values, which the social environment respects and considers as desirable. The research emphasizes that the companies have tendency to start building brand from the top of the company rather than from the employee level of company, and this is considered a mistake, because the brand of one company is built exactly by the employees with their permanent contact with consumers and service users. Study gave compromise solution, which suggest that company should build brand parallel - from the top of the pyramid and from the

### **Integrated Marketing Communications in B2B Companies' Brand Building**

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employees, because this approach sends a message to the public that company has good internal communications as well as that all the employees are oriented to achieve common goals.

Ohnemus researched branding strategies in the business markets as well as how companies' positioning impacts on generating shareholder's income. Based on the study of a great number of companies, they pointed out the relation between development of B2B brand and shareholders income using W-curve, with five different phases, according to companies' strategic position. The companies, with balanced brand strategy, generate 5 to 7 percent higher income for their shareholders. Therefore, it is important for the management of a company to strategically lead and to monitor strategic positioning and competitiveness in the market place. However, the study has shown that a very few companies apply this in their business.

Leading authors in area of B2B branding, Kotler and Pfoertsch, have researched relevance of branding in the business market. They have studied the necessity of strong brand building in the business market and determined possible influence of brand performances on companies' performances. Based on research, authors determined a positive correlation between, long term brand strategy, brand performances, companies' business performance on one side, and the improvement of companies' business results, on the other side. The results of this study encourage companies to acquire a long term approach to branding strategies, which are not focused only on brand building. This study has given a large contribution in the area of B2B branding.

Lynch and De Chernatony have researched strength of emotional branding on value creation in the business market. Emotional brand building strategies are represented in the business markets as well as consumer markets, which attracts stakeholders, on the base of emotional connected elements for companies' brand. Although functional elements of brand are more important for this market, this study emphasized balance between functional and emotional brand values. Only this approach leads to good long-term business performances. The authors point out the necessity of communication using emotional brand elements with internal public as well as external.

The literature review pointed out the need for further study into the strategies of corporate branding in the business market.

### **Characteristics of Marketing Communication in the Business Market**

The basic characteristics of integrated marketing communications in the business-to-business market is that they are directed at business customers, companies that produce goods or services designed to facilitate operations of an enterprise, including manufacturers and intermediaries, institutions, and government

agencies at various levels. B2B markets are characterized by derived demand, a concept that highlights the nature of buyer-seller interdependence and creates the need for a careful analysis of the customer's customer (Gligorijević, 2009).

There are significant differences between business and consumer-oriented communication strategies. The basic characteristics are: decision maker, purchase decisions, business buyer involvement, integrations of communication elements, budget allocation, and evaluation of communication's results, message's content, and media use (Belch, Belch 1998). Some of the most interesting features and challenges of B2B marketing communications are related to the complexity of the business buying process, the multiple buying criteria they use, their different role perceptions and information needs, and the complex interaction between individual needs and organizational goals (Webster 1991). Here, the buying decision is typically made by a buying centre.

Marketing communications in the B2B market are a mix of personal and impersonal communications, aimed at a business buyer. It includes personal selling, catalogues and product literature, advertising, direct mail, trade shows, public relations and promotional novelties and gifts. Personal selling is the principal component of B2B marketing communications, related to the nature of the customer's buying decision process and the buyer-seller relationship. Mass communications are designed to support the sales effort. They are more informative, rational than in the case of the final consumer market. Business buyers in the business market are more involved in communication process and interactive approach is pronounced (Gligorijević 2009)

Business communications tend to be more personal and interactive. In the business market, decision making process is complex and buyers are more involved. As a result, communications in these markets are more direct, more business oriented, more objective and more focused on business (De Pelsmacker, Geuns&Van den Bergh 2001).

Marketing communicational tools interact with others tools, although each has a distinct role to play in moving the potential customer through several stages of the buying decision making process. The company must carefully plan communications, according to specific functions of each element in communications mix, creating synergy among them, in order to send consistent message to the public about business, intentions, goals and companies' vision. In the IMC concept special attention must be devoted to the interaction of each element of communication with the personal selling. Communications elements have commonly not been well-integrated in business companies, which results that some departments does not know about work of other departments as well as that employees does not have clear picture of common goals that companies lead, that's why messages are no consistent for target audience. This interactivity in the business markets is very important because of a message type which company sends, and which should be clear, unequivocally and especially business-oriented.

### **Integrated Marketing Communications in B2B Companies' Brand Building**

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Budget allocation in the business-to-business market is different from the budget allocation in the customer markets. According to the studies promotional costs in the B2B market had following distribution: sales force 22%, advertising 22%, direct marketing 12%, sales promotions 12%, trade shows 11%, public relations 5%, premiums and incentives 4%, online advertising 3% and other (Belch, Belch 1998). Business sector uses different techniques in measures to determine the effectiveness of strategies that are usually designed to support the sale (number of inquiries generated, referrals, and actual purchases). Messages in business sector tend to be more informative, and are designed to elicit inquiries or answer questions. Rational appeals, such as savings, productivity, quality, competitive edge, and sustainability, are dominant in the business sector. Most messages give explicit answers about technical performances and necessary data. In the business sector, the media used by business marketers are different from the media employed in consumer product sector. Media here tend to be more specifically targeted. Trade journals dominate the advertising media. Trade shows and sales incentives are very popular. Interactive electronic media have found a great reception in the business sector.

Business marketing communication requires complex planning of communication instruments, which will respond to business requirements and expectations, and will give precise information that are necessary for decision making in the buying process. In the planning of business communication, holistic approach is required, which is focused on external communication, internal communication and interactive marketing communication. (Kotler, Pfoertsch 2006)

### **B2B Brand Building**

It is impossible to imagine a modern market without brands. Most of brands emerged in the market of final consumption and for its needs. But some of the biggest brands are built in the business market. The best known business brands are GE, Caterpillar, Cisco, Du Pont, Siemens and 3M. Brand building brings company strong competitive position and there for, makes company less vulnerable to attacks. The most important factors that contribute to the emergence and development of business brands are globalization, strong competition, proliferation and increasing complexity of products, and huge pressure to reduce price. Basic functions of brand in business marketing is reducing risk of making the wrong decision on the part of business buyers, increase in the information efficiency of buyers, and value adding and improving image of the product in the area of business marketing (Kotler, Pfoertsch 2006).

Typical brand in the business market is a company brand. Contemporary business market is changing and corporate brand allows companies to create something that is unchangeable and lasts for a long period of time. It can be also used as a trademark for all products. Some companies use sub-brands for some



product lines. The usage of corporate brand is common because those who take part in this market are oriented on the collaboration (relationship marketing), and not on the individual transactions.

Brand building on the business market is marked with specific characteristics of industrial products and specifics of the business market, particularly with those which are connected to the characteristics of the demand and business buyers (Gligorijević 2009). Most purchases include high level of involvement and rationality of the buyers. It is very important to know how business buyers make their decisions – how do they make specifications and go through the decision making process, and what motivates them. The brand building process starts with identification of the main brand values. Main brand values are the most important element of the brand which create attitudes and behaviour of the business buyers. Today, the brand is defined as a group of functional and emotional values that provide unique promise of experience which that particular brand should deliver.

The brand value can be built with different kind of tools, starting from marketing mix instruments, to cultural and social role that the brand has, which more often can't be controlled by the company. Dominantly, the brand value on the business market is being built by functional characteristics and performances of the product. That comes out from the fact that the business buyers are not interested in the products, but in the best solutions of their problems, and functional characteristics provide lower costs, shorter operation time, increase of productivity and quality, increased flexibility etc.

Numbered changes on the business market led to the change of focus when it comes to creating a brand, from its functional to its emotional characteristics, such as trust, feelings, and safety. Emotional brand values last longer and are less endangered by the activities of the competition. Numbered researches showed that the selection of the suppliers is largely influenced by reputation, image, and way of collaboration.

Instead of insisting only on the functional or the emotional brand values, better approach to create corporate brand value is incorporation both, functional and emotional values, which together they guarantee the delivery of unique experience to the business buyers. This is especially important to point out in communicating those values. This leads to creating the specific, personal and strong brand position on the market place.

### **B2B companies' brand building by IMC**

Integrated marketing communications represent synergy of all marketing instruments, approaches in area of company, with purpose to spread stronger influence on consumers and business partners, better position in the consumers

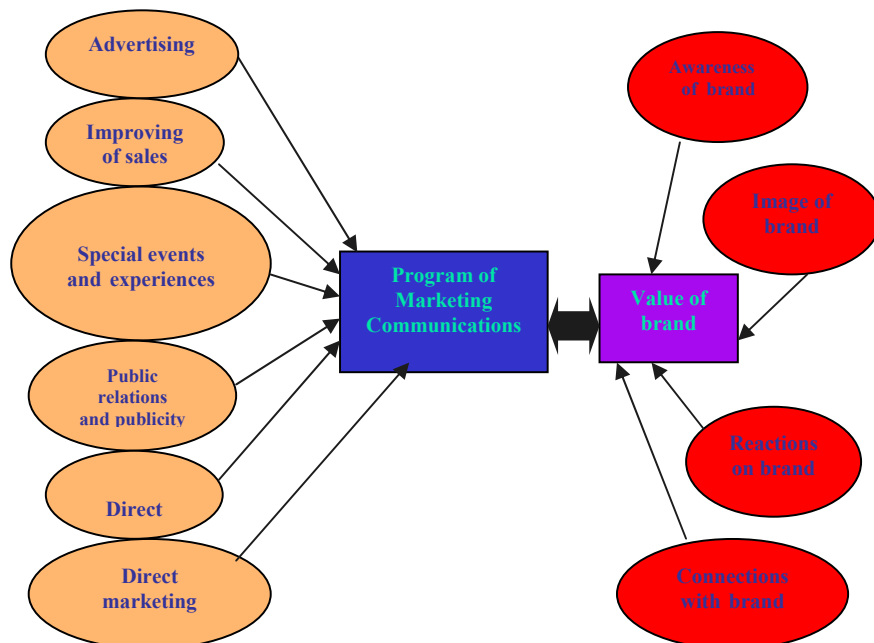
### Integrated Marketing Communications in B2B Companies' Brand Building

mind, and better positioning on market place. IMC is the concept that brings together all forms of company communications with all segments of audience. All of these instruments of communication get synergy and they clearly transfer vision which is followed by company (Picture 1). Intention of IMC is to enable that all instruments communicate through consistent message.

There are few different integration directions: horizontal, vertical, internal and external. Horizontal integration of communication connects different functions of one company, such as production, finance, marketing, logistics, which go in front to unique message for the target audiences that the company has good companies' cooperation, that she follows common objectives and that all the functions have clear perspective in achieving company's vision. Advantage of horizontal communication is good cooperation among different departments of one company, also structured data base that ensures fast decision making in business environment. Horizontal integration sends good message towards business market.

Vertical integration includes good communication on all management levels and it represents higher management support for lower management levels in decision making. When it comes to this integration direction it is important that all levels of decision making follow mission and vision of the company.

**Picture 1: Integrated marketing communications in order to build values of brand**



Internal communication requires support from internal marketing, in order to protecting shared values, employee's motivation, as well as good corporate culture that allows performing all business tasks in the company, achieving goals and respecting corporate vision. Internal communications enable developing of companies' ideas, new companies' standards and making good organizational network inside of the company.

External integration requires partners from outside of a company, such as: marketing and research agencies, special consultancy and others, from which they ask for special services (researching, media planning).

Integrated marketing communications are providing a competitive advantage to a company, what as final result have better positioning on market place and higher profit. Instruments of promotional mix are just a part of IMC concept. Integration of all marketing elements is providing consistence in communication with costumers and business partners on market place. IMC's basic goal is to combine all marketing elements and strategies, in purpose of building companies' brand.

Based on IMC, company sets communication goals, such as distinguished slogan and company logotype, buyers and consumers feeling of belonging to company, perception of company as desirable employer and socially responsible company and friendly oriented. Rarely companies can attain these communicational goals, because it requires internal and external communication harmony, good relationship among employees, their job attitude, motivation for work, and respect for defined corporate values.

IMC requires better organizational structure in company, due to clearer division of work, as well as faster vertical and horizontal communications. Better organizational structure implies communication integration, understanding communicational goals, and improves internal communication. Also, decision making within the company should be clearly demarcated, so that vertical communication became more efficient and without obstacles. Restructuring organizational structure within the company allows application of the IMC concept in building corporate brand.

IMC concept, when clearly executed, creates strong bond with business buyers and opens new possibilities to interact with them, which is great advantage in defining new market positioning strategies. Company gains competitive advantages on market using this concept.

Regarding consumers, when company sends message clearly using integrated marketing communications, it creates feeling of belonging and consumers' loyalty to company's products and services. Therefore, message should be simple and clear in accordance with company's values. Message sending is often done wrong by the companies, because the messages sent are blurry and ambiguous. It's recommended for communication to be concise and close to both

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consumers and business partners. One of the most important elements of communication process is quality of product and service that gives market credibility to the company. Buyer is considered interesting only if the act of buying is repeated. One's the buyers are familiar with the quality of product, company can interact with them and include other elements of marketing communications. It is important to notice that employees, as the instrument of marketing mix, represent crucial element in building corporate brand, because they are the first to directly communicate with both buyers and business partners. Trust is the key word in creating relations between business buyer and company.

Demanding task is to send the message that reflects mission and vision in the best way through all levels of communication. Experience tells that there is little number of companies which have successful communication with target audience. Examples of successful companies are VIP and Gorenje, because they send consistent message of their goals, mission and vision. Public sees VIP as trusted company, desired employer and socially responsible company. After slight decline Gorenje has regained its leader position thanks to good conceived integrated marketing communications, based on product quality, specific innovative design, as well as social responsible actions.

Beside numerous benefits of IMC concept, there are many barriers in execution. One of them is communication with many target audiences which demands designing specific campaigns of IMC. Rigid organizational structures may create obstacles in realization of integrated marketing communication because of poor internal communication, lack of understanding the IMC concept, negative management attitude, as well as insufficient budget. IMC concept also demands creative communication approach companies usually don't have, which is why they hire agencies to design it. This strategy has many professional advantages but also flaws, because agencies are not familiar with organizational culture, they don't understand company's vision which leads to misunderstanding in communication.

Another problem of IMC concept is choice of the most suitable communication instruments for sending message to target audiences. That way, advertising is adequate as preparation for other promotional instruments, as well as removing post sales dissonance, but it fails in middle phases of decision making in business buying process, where is more effective personal selling.

Holistic approach, transparent communication and social responsibility of the company are the main source of additional values for buyers. Successful corporate brand is built on understanding of consumer's needs, business partner's preferences and creating products and services respecting special wishes and demands of target group which results with satisfied and loyal customer.

IMC concept implicates continuous communication with target audiences because this is the way to create active interaction with all stakeholders on market. New generation media, such as Internet and social networks, Facebook, Twitter

and LinkedIn, provide opportunities for direct communication with business buyers and partners in order to realize their needs and wishes which is excellent way to improve products and services and to build companies' brand. Social media includes free recommendations for products and services as best way of promotion. Nowadays, many companies accept challenges of new media.

One of the most significant advices of IMC is that every company has "its own story" which they are telling through business activities to public day by day. It is necessary for every member of corporation to accept corporative vision and in accordance to this vision he should give his contribution to achieve it.

When you are making corporative brand on B2B market the most appropriate strategy is relation marketing strategy, which gives the accent on the added values that business buyers are getting through their cooperation with company. New tendencies in marketing are leading to new strategies in planning of instruments of marketing mix, in both consumers and business markets. Thus the added values of products is increased for customers, and costs of making product and services available are included in price, distribution insists on convenience of product and service delivery, while promotion gets form of interactive communication. For implementation of relation marketing strategy it is important for company to make appropriate data base about business customers and buyers, so that company can plan communicational strategies that allows her to be in contact with them. A lot of companies today, use CRM programs (Customer Relationship Management) that allows communication planning and business strategy. These programs are allowing access in company business, cooperating process with business partners and they are also giving some business notes about cooperating with stakeholders.

In process of making and developing corporation brand, it is important to coordinate internal and external communication. External communication makes a public image of company, and many of them are forgetting importance of internal communication, which is sending important information about company business to internal audience. Also, clients are always in contact with employees in first row, so they are making their first impression about company based on their communication with employees. Therefore, strategy of building and development of corporate brand is finding as very important in order of improvement internal communication.

Internal Communications co-workers and communication with client's employees sends a clear message about the culture of the organization, their shared values, and compactness in achieving the mission and vision. Successful companies today organize seminars communication and set the standard of communication that employees follow. In communication with business partners are an important accuracy, timeliness, culture of communication, and business notes, respectful of intercultural differences. Many companies say their corporate social responsibility, honest attitude toward employees, and care about the

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environment, environmental protection and concern and willingness to help solve social problems in the near and far environment.

Media of new generation are now more common in communication with business customers and partners to ensure prompt communication. On the other side, companies should be careful in communicating via the Internet and social networks because they allow great freedom of opinion and expression, which may in careless communication more harm, but to bring benefits to companies. There are many cases of bad articles on the company and its products on social networks, leading the company in a position to investigate the labels on their work, and planning strategies that can prevent negative thoughts. This is important, that companies must be transparent in their work and communication with business customers in the market.

It is necessary to take into account that today's demanding business customers, their awareness and when purchasing have a clear idea of what products and services are required. On the other side, companies in communication with business customers indicating the confidence of their needs and desires and in this atmosphere, they become representatives of the company, in terms of praise for their services and products, as has been the best and the best strategy of building brand and its development.

### **Conclusion**

The most researches in the field of integrated marketing communication and in the field of building brand are focused on final consumption. The increasing changes on the market impact on increasing usage of these concepts in business market. Integrated marketing communications on business market are complex and demanding for implementation, because of the huge number of limiting factors, such as great number of participants in the decision making process of business customers, there different business strategies and different level of development and the complex mechanism of coordination. This paper gives theoretical and practical analyses of IMC in business market, and a specific roll of IMC in building a corporative brand on the specific market.

Building of a companies' brand in business market is affected by specified production goods. Dominantly, the value of the brand increases by using the functional characteristics and product performances. Instead of insisting on some values of the brand, the better approach is to incorporate both functional and emotional values, which are together, guarantee the delivery of unique experience to business customers. It is extremely important to pay attention on that in value communication. Personal and strong position on the market can be obtained in that way.

The paper emphasizes the importance of external communication with clients, partners and internal communication in company. Both, internal and external communications are important in building of a companies' brand in this

market. The instruments of promotional mix are just the part of the concept of the IMC. The broader consideration is integration of all marketing elements in order of consistent communication with business buyers and partners on market. The goal of the IMC is putting together the marketing elements and strategies in order to build a companies' brand. When the IMC concept is appropriate conduct, there is a strong emotional connection with business partners and a possibility for interaction with them, what is advantage in defining a new market positioning strategy. New media generation give a new possibility of interactive communication with business buyers and partners in a process of listening their needs and wishes. The paper opens and analyses all elements of the IMC implementation in specific companies' brand building on B2B market.

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## INTEGRISANE MARKETINŠKE KOMUNIKACIJE U IZGRADNJI KORPORATIVNOG BREND NA B2B TRŽIŠTU

**Rezime:** Ovaj rad se bavi teorijskom i praktičnom analizom uloge integrisanih marketinških komunikacija u izgradnji korporativnog brenda na poslovnim tržištima. Izgradnja brenda na poslovnim (B2B) tržištima se razlikuje od brendiranja prema opštoj javnosti. Prioritet je razumevanje kako brendiranje funkcioniše na poslovnim tržištima. Priroda i složenost poslovnog marketinga zahteva holistički pristup brendu, koji obuhvata stvaranje poverenja i udobnosti za sve partnere u procesu kupovine. Posle pregleda literature, u radu se naglašava analiza specifičnih aspekata IMK na poslovnim tržištima, u smislu specifičnosti B2B marketinških komunikacija, i razvoj korporativnog brenda. Svrha ovog rada je da ukaže na jedinstvenu ulogu IMK u uspešnoj izgradnji korporativnog brenda u B2B marketingu.

**Ključne reči:** Integrisane marketinške komunikacije, B2B brend, izgradnja korporativnog brenda, promotivni miks.



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## BUILDING TRUST, COMMITMENT AND LOYALTY BETWEEN ORGANIZATION AND CUSTOMERS

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**Abstract:** *The paper aims at emphasizing the importance of developing relationships between organizations and profitable customers, as social bond. Development of social bonds between organization and profitable customers may be considered through four chains of loyalty. Customer perceives the value of offering system (cognitive respond), feels satisfaction, develops trust and aims at investing maximal effort to keep the relationship (affective respond), he/she develops different intentional behaviour (conative respond) and in the end he/she decided on what he/she would really do (customer behaviour). Today, all successful organizations are devoted to building components of trust, commitment and loyalty with their customers. In other words, following the affective and conative respond of customers, they create relational atmosphere, and make impact on partners to resist attractive short-term alternative, to expect long-term benefits, reduce risk, and to believe that the other part will not act opportunistically. For this reason, when all of belief components are present at the same time, they contributing to the better business performance. The paper presents results of on empiric research, analysing relevancy and mutual components dependency of belief levels. Concerning independent variables, it was established which organizations are dedicated to developing components of belief levels with their customers in Serbia.*

**Keywords:** *social bonds, mutual trust, commitment, loyalty, belief components.*

### Introduction

The basic characteristics of the environment in which organizations operate determine high degree of uncertainty. Technological progress and market deregulation are the main factors which enabled the appearance of global

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competitors. Great offer of products and services and demands variable affects the very fast maturing of market. Due to the large number of alternatives, negotiation power has been transferred to the customer, and now he completely determines the rules in the chain of value creation.

Organizations have to form completely the system of offers in accordance with the needs, desires and demands of customers, in order to attract and encourage them to repeat purchases and develop a relationship with their customers. There are many reasons that affect customers dissatisfaction. Determined studies have shown that 68 percent of customers leave the relationship because of the indifference of staff, 14 percent customers are not satisfied with product, 5 percent customers leave the relationship because of attractiveness of competing products and 9 percent because of lower costs of competitors (Gummesson 2008, 262).

Organizations compete in meeting the needs, wants and desires of their customers by putting them at the center of business. Customer orientation is certainly a very important aspect of developing relationships with them. Organizations should continuously create superior value-added in order to maintain customers satisfaction. On the other hand, customers evaluate efforts of organization, and repeat purchases that meet their needs, desires and demands, because customers invest money, time, energy, to confirm the link with supplier (action component). However, a large number of alternative sources of supply give customers opportunity to behave as it suits them. Large choice of products and services do not obligate customers to accept coercive or functional loyalty. Organizations are faced with problems of retaining profitable customers. Carl Sewell, manager of the office car "Cadillac" in Dallas, has calculated that the company made 332,000 dollars during the life cycle of customer. He believes that every customer who brings so much revenue to the company, must be more important than customers who are not loyal to the organization (Gummesson 2008, 47) Empirical studies have shown that long-term customer retention can be realized by creating emotional tie. Emotional tie represents the base for interpreting emotional loyalty. In order to be emotionally connected to a particular organization, it is necessary for customers to be satisfied with products and services, to trust the organization and to be emotionally loyal to it. Customer satisfaction with product and services influence on frequency and volume of transactions, and link with organization, and these action components are the input components of relationship strength. As a support to motivation in managing relationships, relational atmosphere is being developed between organization and customer, and it is determined by the level of belief, ie. by trust, commitment and loyalty (Donaldson, O'Toole, 2007, 31).

### **Social Bonds**

According to their nature, people are inclined to social bonds. Social bonds have a very important role in their life. With social bonds people want to realize

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their personal interests. It requires each person to play different life roles, such as marriage, family, business, community, entertainment, etc. In all roles, a person has a need to control events in a specific way. However, the problem is that the other party who participates in a relationship for their own reasons, also tends to get maximum benefit from the relationship. If both parties in a relation behave opportunistically, or one part uses power to dominate, then objectively such a relationship may not last long. For long lasting relationship, it is necessary for both sides to withdraw slightly different from their maximum interest and that in some way to benefit from the relationships considered as a mutual benefit. It means that both partners should work on mutual benefit. As a result of this behaviour, they develop a relationship over time in which they create mutual trust, commitment and loyalty.

#### **Belief Components**

Relational strength is determined as motivational support in managing relationships and intensity of interaction between parties in relation (Donaldson, O'Toole 2007, 58). It is assessment that determines the level of beliefs and actions within the relationship between organization and customers. Relationship strength level is an indicator of beliefs and activities in the relationship. Rational strength is determined by social and economic elements of relations. It defines the nature of relationship, and it is determined by economic action and social beliefs. Social beliefs of customers are trust - belief in the products and services, and reliability and integrity of organization, commitment - belief that relationship with the organization is so important that it is necessary to invest maximum effort to maintain and loyalty - as conational response of customers as a result from a belief in the organization, its products and services.

#### **Trust**

Trust plays a critical role in the development of long-term relationship. Trust is generally accepted variable. Trust is the basis for any social interaction or exchange within relationship (Gundlah, Murphy 1993, 41). Trust is defined as the will or affinity to rely on partners in a relationship, who is believed (Moorman et al. 1992, 82) due to reliability and integrity (Morgan, Hunt 1994, 23). In a relationship, partners must not behave opportunistically. The behavior of organization influences the level of customers trust, and loyalty can occur as a result.

Timely and accurate communication is a very important component of building trust. In communication, trust in the speaker is based on credibility of the listener. Trust represents central process of problem solving and constructive dialogue. Trust includes expectation of individual person to another person who has committed to holding a word, to be reliable and to make promises.

Except reliability, an important component of customers confidence in the organization is its belief that organization does everything in its own best interest. Doubt creates distrust, and it reduces commitment and loyalty, and relationship turns into a short-term exchange.

### **Commitment**

Like trust, commitment is a key variable in building a successful relationship. Also, commitment determines belief of partners participating in the exchange, that relationship with the other part is so important, that it requires maximum effort to maintain. Partners believe they have to work hard to save the relationship (Morgan, Hunt 1994, 23). Commitment shows a constant partners desire to keep the value of relationships (Moorman et al. 1992, 316). Value of each relationship can be related with the belief that commitment exists only when the relationship is important, and permanent desire to maintain a relationship, when committed partner wants relations that exist indefinitely. There are calculative commitment and emotional commitment. Calculative commitment represents economic commitment, in which customers are economically dependent on one organization, because of the non-existent alternative sources of supply or due to the high cost abandoned relationships that create a barrier of changing supplier. Emotional commitment represents an emotional factor that determines the degree of identification and involvement of customers in organization. The difference between these two commitments, is that emotional commitment is the result of customer trust and commitment to an organization (Johnson et al. 2006, 123) while calculative commitment is the result of organizations coercion and power.

### **Loyalty**

There are several factors that are important to create the intention of customers loyal behaviour. First of all, a strong influence on the creation of customer loyalty has its overall satisfaction with products and services of the organization, resulting customers perceive of value and compares value with its expectations (Fornell et al. 1996, 8).

Also, trust is an important factor in building loyalty between customers and organization. Nobody expects a long lasting relationship if he does not trust partner. Trust is the only one criterion that measures the value of partner. Trust plays an important role, when conditions change. Also, volatility can be caused when one partner depends on the other, or when there is a great offer of the same products and services. Degree of customer trust toward organization has a direct impact on customers loyalty intentions (Donney, Cannon 1997, 46).

Emotional commitment is a powerful influence on customer loyalty. Relationship between customers and brand perceives a matter of compatibility of goals. Brand does not only support customers in satisfying their basic needs and

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avoiding the psychological risks, but brand is the meaning of their life. Process through which customers are becoming loyal to the brand, is initially identified with the re-purchase. However, the repurchase is not sufficient evidence of brand loyalty, and it is a false loyalty. Trust is the main crucial factor of commitment because customers believe that brand creates a high value exchange, and as a result, customers are becoming loyal towards brand. Customer's commitment determines its identification with organization, creating customer loyalty, which contributes to welfare of the organization (Garbarino, Johnson 1999, 72).

Loyal intention has a direct impact on customer behavior. Loyal intention may contribute through customer's willingness to purchase. Loyal intention forms different forms of behavioral intentions, such as probability that customer will repeat purchase, customers intention to recommend products and services to others, or customers intention to leave the relationship. This paper presents the results of empirical research. The paper analyzes described indicators that determine a customer's intention of loyal behavior, and correlation of trust, commitment and loyalty, with the belief level.

#### **Empirical Survey: How Much Organizations in Serbia are Dedicated to Developing Relationships with their Customers**

This paper presents the results of empirical research, which analyzes Serbian organizations dedicated to developing relationships with their customers. The paper analyzes components of beliefs, i.e. development of trust, commitment and loyalty with customers is important for the organization. The data are taken from empirical research (Ranković 2010, 73-92) referring to the implementation of relational marketing in customers markets, in profit and nonprofit organizations in Serbia. The research involves a survey techniques, where respondents from PR office of profit and nonprofit organizations had been sent a questionnaire supported with the Excel program

Respondents could express their views about indicators that determining the components of belief. Respondents evaluated the indicators that determine the components of beliefs based on the significance of their organizations.

From 63 organizations that participated in survey, 57 organizations responded to the questionnaire via e-mail, while 6 respondents answered directly by filling in the questionnaire.

#### **Research Goals and Research Hypotheses**

The main goal of this study was to determine the presence of trust, commitment and loyalty between organizations and their customers, then to examine their significance and link to the level of belief, and finally to determine which organizations in Serbia are dedicated to developing relationships with profitable customers.

In accordance with the research goal, it was necessary to test the hypothesis, which assumes that all indicators of belief are in positive correlation with it, and confirm the three hypotheses of social characteristics of the relationships:

- There is a trust in the relationship between organizations and customers, in terms of organization,
- There is commitment in the relationship between organizations and customers from the perspective of organization.
- There is a loyalty between organizations and customers from the perspective of organization.

Then, we define the basic variables in accordance with the objectives of the research and hypotheses.

The dependent variable is determined by the level of readiness and possibility to establish, maintaining and developing relationships between organizations and customers

The independent variables are:

- types of organizations: profit, nonprofit,
- types of activities: production activities (production of food, beverages, tobacco, garments, chemical products, etc..) and service activities (education, health, banking, insurance companies, travel agencies etc.),
- size of the organization: small, medium and large enterprises.

### **Results of the Research**

Table 1 represents the structure of the sample, in which are specified frequency and percentage according to the category of independent variables.

**Table 1: Sample structure**

| critrion             | Categories                 | Frequency | percentage |
|----------------------|----------------------------|-----------|------------|
| TYPE OF ORGANIZATION | profit                     | 56        | 88,9       |
|                      | Non Profit                 | 7         | 11,1       |
| TYPE OF ACTIVITY     | production                 | 11        | 17,5       |
|                      | service                    | 52        | 82,5       |
| SIZE OF ORGANIZATION | small                      | 27        | 42,9       |
|                      | Medium                     | 6         | 9,5        |
|                      | large                      | 10        | 15,9       |
|                      | * missing data on the size | 20        | 31,7       |
| <b>TOTAL</b>         |                            | 63        | 100        |

*Source: Ranković, Lj. (2010), 79.*

### **Analyzing the Presence of Belief Components**

It should be emphasized that a Likert's five-scale was used in this questionnaire. On a continuum for estimating the attitude, value 1 represents the complete absence of specific indicators, and value 5 fully presence of certain indicators. In table 2 are given minimum and maximum values, arithmetic mean and standard deviation. The presence of indicators which determine the level of belief among the organizations and customers in Serbia were confirmed by values in the column arithmetic mean. Also, most organizations in Serbia, are positively related to indicators that determine the development of trust, commitment and loyalty with their customers, but there are organizations that believe that the social characteristics of the relationships are not necessary factor for business success of the organization, which was concluded by analysis of arithmetic mean values and standard deviation.

**Table 2 belief components presence in the relationship between organizations and customers**

| Variable                | min  | max | arithmetic mean | standard deviation |
|-------------------------|------|-----|-----------------|--------------------|
| 1. components of belief | 2.02 | 5   | 4.27            | 0.55               |
| 1.1. trust              | 1.40 | 5   | 4.14            | 0.72               |
| 1.2. commitment         | 1.67 | 5   | 4.38            | 0.69               |
| 1.3. loyalty            | 2.50 | 5   | 4.30            | 0.75               |

*Source:* Ranković, Lj. (2010), 80.

### **The Importance and Mutual Connection with Belief Components**

Empirical research confirmed that indicators of beliefs are positively correlated with it.

**Tabela 3. The importance and mutual dependence of belief components levels**

| level of belief components |                         |              |
|----------------------------|-------------------------|--------------|
| Trust                      | correlation coefficient | 0.84         |
|                            | relevance               | <b>0.000</b> |
| Commitment                 | correlation coefficient | 0.79         |
|                            | relevance               | <b>0.000</b> |
| Loyalty                    | correlation coefficient | 0.65         |
|                            | relevance               | <b>0.000</b> |

*Source:* Ranković, Lj. (2010), 84.



All indicators have a positive effect on building relationships between partners, ie, achieving a certain level of belief, and in that way the validity of this indicator is confirmed, that is in accordance with the theoretical base. The results show that in the sample there is a high degree of correlation between trust and the level of belief in the relationship between organizations and customers, while the relationship value of loyalty and level of belief, is average. This confirms the existing variations of assigned values of randomly variable size indicating the presence of organizations which do not achieve to the emotional loyalty in relations with their customers.

#### **Analysis of Independent Variables in a Relation to the Use of Belief Level Components**

After confirming the links of trust, commitment and loyalty to the level of belief, one of the aims of this study was to determine which organizations have a positive attitude towards developing relations with customers. In this section, factors of relational marketing on customer markets were analyzed in a relation to independent variables - type of organization, operation and size of organization.

**Table 4: Statistically significant difference, the level of beliefs, depending on the type of organization**

| level of belief components | Frequency          | arithmetic mean | standard deviation  | standard error of measurement |
|----------------------------|--------------------|-----------------|---------------------|-------------------------------|
| profit                     | 56                 | 4.3365          | 0.45770             | 0.06116                       |
| Non Profit                 | 7                  | 3.7746          | 0.92496             | 0.34960                       |
| t                          | degrees of freedom | relevance       | difference of means | Standard Error                |
| 2.682                      | 61                 | <b>0.009</b>    | 0.5619              | 0.20948                       |

*Source:* Ranković, Lj. (2010), 90.

Profit and nonprofit organizations are statistically different according to the factor of belief levels. Profit organizations have a higher score, which means that building trust, commitment and loyalty with their customers is more meaningful than in the non-profit organizations.

Most nonprofit organizations have a monopoly and have a defined budget funds, i.e. they are financed independently of the market, so they ignore needs, desires and demands of their customers, so the trust in such institutions is very small or does not exist.

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If we talk about types of activities, this independent variable has no significant effect on components of beliefs. Production and service organizations do not differ in a relation to the attitude of belief components. Both production and service organizations find it important to develop trust, loyalty and loyalty with their customers.

**Table 5: Statistically significant difference, the level of beliefs, depending on the type of activities**

| level of belief components | Frequency          | arithmetic mean | standard deviation  | standard error of measurement |
|----------------------------|--------------------|-----------------|---------------------|-------------------------------|
| production                 | 11                 | 4.3293          | 0.42384             | 0.12779                       |
| service                    | 52                 | 4.2624          | 0.57365             | 0.07955                       |
| t                          | degrees of freedom | relevance       | difference of means | Standard Error                |
| .365                       | 61                 | 0.716           | 0.0669              | 0.365                         |

*Source:* Ranković, Lj. (2010), 91.

Organization size has no significant influence on components of beliefs. Small, medium and large companies do not differ in a relation to the attitude to the the level of belief. For all sizes of business, it is important to develop trust, commitment and loyalty with their customers.

**Table 6: The influence of organization size on components of beliefs**

| level of belief components | Frequency      | arithmetic mean    | standard deviation | standard error of measurement |
|----------------------------|----------------|--------------------|--------------------|-------------------------------|
| small                      | 27             | 4.2807             | 0.43691            | 0.08408                       |
| medium                     | 6              | 4.1111             | 0.49814            | 0.20337                       |
| large                      | 10             | 4.2467             | 0.92890            | 0.29374                       |
|                            | sum of squares | degrees of freedom | F                  | relevance                     |
| between groups             | 0.141          | 2                  | 0.202              | 0.818                         |
| within groups              | 13.969         | 40                 |                    |                               |

*Source:* Ranković, Lj. (2010), 92.

## **Conclusion**

According to his nature, a man is inclined to social relationships. Social bonds have a very important role in his/her life. Very important social tie in which people satisfy their needs, wishes and requirements is the relationship between different organizations. In social relationships, a person wants to realize his/her own interests. However, in order to achieve the continuous personal interests with an organization, he/she must be pleased with the products and services of the organization first, and as result of positive experiences and fulfilled expectations, the customers can develop trust, commitment, and loyalty, which determine the relationship atmosphere.

The results of the investigation are represented in this paper, which confirmed the research hypothesis, i.e. the presence of components of beliefs, in building relationships between organizations and customers in Serbia. Also, most organizations in Serbia are positively related to indicators that determine the development of trust, commitment and loyalty with their customers, but here are organizations that believe that the social characteristics of the relationships are not a necessary factor for business success of the organization. Also, it was confirmed that all components of belief are in the significant positive correlation with it. The results of the sample show that there is a high degree of correlation between trust and the level of belief in the relationship between organizations and customers, while the value of the relationship of loyalty and level of belief is average. Variations of assigned values of randomly variable size indicate that there are organizations, which in relations with their customers do not achieve the emotional loyalty.

Finally, we should emphasize that there are significant differences in development of the relationship between profit and nonprofit organizations. Profit organizations are more dedicated to the development of trust, commitment, and loyalty. This explains the fact that there are highly profitable customers, and without them, the company can not survive in the market, then, there are many alternative sources of supply, which tend to attract profitable customers, and finally there is a tendency to avoid critical events that forced customers to end the relationship. For this reason, profit organizations want to develop an emotional loyalty with their profitable customers. Most nonprofit organizations are a monopoly and have a defined budget funds, ie, they are financed independently of the market, they ignore needs, desires and demands of their customers, so the trust in such institutions is very small or does not exist.

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### **IZGRADNJA POVERENJA, ODANOSTI I LOJALNOSTI IZMEĐU ORGANIZACIJE I POTROŠAČA**

**Rezime:** Ovaj rad teži da istakne važnost razvoja odnosa između organizacije i profitabilnih potrošača kao društvene veze. Razvoj društvenih veza između organizacije i profitabilnih potrošača se može posmatrati kroz četiri faze lanca lojalnosti. Potrošač opaža vrednost sistema ponude (kognitivan odgovor potrošača), doživljava satisfakciju, razvija poverenje i teži da uloži maksimalan napor da se odnos održi (afektivni odgovor potrošača), u njemu se razvijaju različite namere ponašanja (konativni odgovor potrošača) i donosi odluku šta će stvarno uraditi (ponašanje potrošača). Danas su sve uspešne organizacije posvećene izgradnji komponenata nivoa verovanja (poverenju, odanosti i lojalnosti, odnosno praćenju afektivnog i konotativnog odgovora potrošača). Oni zajedno kreiraju relaciju atmosferu i utiču na partnere da budu otporni prema atraktivnim kratkotrajnim alternativama, da očekuju dugoročne koristi, razmatraju potencijalno visoko-rizične akcije oprezno, i veruju da druga strana neće delovati oportunistički. Iz takvih razloga, kada su zajedno prisutne sve tri komponente nivoa verovanja, doprinose boljim performansama poslovanja. U radu su predstavljeni rezultati empirijskog istraživanja u kojem se analiziraju prisustvo i međuzavisnost komponenata nivoa verovanja, i u odnosu na nezavisne varijable, utvrđeno je koje su organizacije posvećene izgradnji komponenata nivoa verovanja sa svojim potrošačima u Srbiji.

**Ključne reči:** društvene veze, komponente nivoa verovanja, poverenje, odanost, lojalnost.





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## ARE SUCCESSFUL FINANCIAL COMPANIES IN SERBIAN HOTEL INDUSTRY ALSO SOCIALLY RESPONSIBLE?

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**Abstract:** *Social responsibility in the catering industry, and therefore the hotel industry, is activity that is not sufficiently represented in the Republic of Serbia. In the world, great attention is given to this issue, while in our country is "taking its first steps." Major global hotel chains as well as small independent hotels have recognized the importance of implementing corporate social responsibility, not only because of (questionable) charity, but primarily because of financial and other benefits that it brings them. This paper attempts to answer the question whether such a situation corresponds to a state of affairs in Serbia, i.e. whether hotel companies that have better financial results pay more attention to corporate social responsibility than those who have not. Here, the level of Social Responsibility is measured through the social component, i.e. the ratio of companies with local communities, employees, suppliers, government and NGOs. The aim is, in addition to answering the question from the title, to show the possibilities to promote social responsibility in the domestic hotel industry.*

**Keywords:** *social responsibility, social component of social responsibility, catering, hotel industry, financial results*

### Introduction

There is a long kept controversy whether promoting environmental protection, local communities, the conditions for employees and business partners is helping or hurting economic performance of companies. Understanding these relationships is important from both perspectives - from the viewpoint of natural

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and social environment and from the standpoint of economic gain, if one pursues high levels of these factors.

Many studies on the relationship between internal-external environment and economic performance date from the 70s of the twentieth century. Later, in the 90s attention in connection with this problem mainly focused on the science, business and policy circles. However, these studies are still limited and insufficient to make a single unified theory. Instead, the results are often seen as isolated cases, and sometimes were also contradictory. According to one, the traditional extremes, promoting preservation of the social environment increases production costs and, therefore, inevitably leads to damage in economic performance. For example, one extreme, warns McGuire (McGuire 1972, 335-354) is when only a certain regulations in this area is respected, its rules could be aimed at even complete expulsion of certain branches of industry in the economy.

According to another, contrary thinking, there is the so-called Porter hypothesis. Through it company can make a personal profit from the improvement of relations with the environment in the form of efficiency and add market value, i.e. thus increasing the extent of their economic performance (Porter, Van der Linde 1995a, 120-134). This view, which is to improve relations with internal and external environment is in harmony with economic gain, called the access to mutual benefits or *win-win* approach.

There are contradictions not only in the literature, but in practice as well. Previous attempts to empirically verify any systemic impact of relations with the environment on economic performance has been sufficiently successful. As a result, it is often alleged that the level of relations with the environment does not affect the economic benefit of the company in any way. Although the investigators could not confirm the existence of systematic links between these two things, many business people and politicians are convinced that this link exists. As long as these beliefs affect business decisions, the previous problem can not be ignored. Moreover, the absence of evidence can not be evidence of absence. Lack of evidence about connections between, for instance, the protection of employees and economic results can be at least partly explained by conceptual and methodological flaws. The economic impact of improving the conditions of internal and external environments are neither negative nor universally positive, in some, but not all situations are mutually winning. When the factors that influence the relationship are identified, problems and conflict situations can be easily solved.

This paper deals with one part of corporate social responsibility - certain factors of social responsibility for employees in the hotel industry in Serbia. The paper is going to try to answer the question - is there any and what is the nature of the relationship between the social aspect of social responsibility and financial results of companies on the example of hotel industry in Serbia. The aim is, in addition to answering the question from the title, to show the possibilities to promote social responsibility in the domestic hotel industry.

### **Conceptual Definition of CSR and its Importance**

The term Corporate Social Responsibility or CSR has started to be used in the early 1970s, although the various aspects of social responsibility have been the subject of action organizations and governments in the 19th century, and in some cases even earlier.

In the past, attention to social responsibility is directed primarily through the prism of business. The term "corporate social responsibility" is still better known to most people than "social responsibility." The view that social responsibility refers to all types of organizations (not just business) comes from the fact that they all have a responsibility to contribute to sustainable development.

At the beginning, the concept of social responsibility was based on philanthropic activities such as giving to charity. Topics like honest business practices have been included in social responsibility more than 100 years ago. Other topics such as human rights, the environment, combating corruption and consumer protection have been added over time as they grew in importance.

The earliest definition of social responsibility had imprecise explanation that it was "the responsibility of citizens to their society and nation." It later joined by such explanations and more specific concepts - "the idea that citizens need to consider social consequences of their actions when making decisions." Modern definitions go beyond limiting the action of individuals.

Social responsibility is the obligation of an entity in making decisions to take actions that will improve and protect the interests of society as well as the entities. Thus, social responsibility is an ethical or ideological theory that an entity, whether government, business, organization or individual has a responsibility to society as a whole (Maurrasse, Jones 2003, 214-233).

This responsibility can be "negative", meaning that there is no release from guilt and punishment, or it may be "positive", meaning that there is a responsibility to act proactively (Kaliski 2001, 78-91). Social responsibility commitments to the larger social units as the opposition itself.

There are several reasons to support social responsibility and its various levels - economic, legal, or discretionary responsibility. There are six main areas of social responsibility regarding the social environment - employees, suppliers, financiers, consumers, local communities, governments and other organizations or groups.

Corporate social responsibility is reflected in improving the quality of relationships with key stakeholders in society. Novo Nordisk is defined it as the activation value in the perspective of human resources, human rights, health and safety, as well as our relationships with society as a whole (Internet source). The obligation of the entity is respect the welfare and interests of society (which is



influenced by activities and policies of the entity) that provides an environment and resources for survival and development.

ISO - International Organization for Standardization, has decided to initiate the development of international standards by providing guidelines for social responsibility. Standard guidelines were published in 2010 as ISO 26000 and they are on a voluntary basis (Internet source). It does not contain requirements, which means that, for now, there will be no certification of these standards. There are many different opinions, on the one side that this area should introduce strict laws, to complete freedom on the other. ISO 26000 should be the golden mean, which promotes respect and responsibility based on known reference documents, without choking creativity and development. The intention of ISO 26000 is to encourage voluntary commitment to social responsibility, which would further lead to a common policy concepts, definitions and methods of assessment. Needs of the organization from the private and public sector are to behave in a socially responsible manner and it becomes widely accepted attitude of society.

Social responsibility is the responsibility of the individual or organization to influence its decisions and activities on society and the environment through transparent and ethical conduct by:

- contribute to sustainable development, including health and welfare of society;
- takes into account the expectations of stakeholders;
- in accordance with applicable laws and international norms of behavior;
- is integrated and practiced throughout the organization (ISO 26000);

Different interest groups have participated in the development of ISO 26000: industry, government, unions, consumers, NGOs and other organizations, balanced, in addition to geographical factors and by sex. ISO has selected SIS - Swedish Standards Institute and ABNT - Brazilian Association of Technical Standards (Associação de Normas Técnicas Brasileira) to provide joint leadership of the ISO Working Group on social responsibility.

### **The Relationship between CSR and Financial Indicators of Companies - Some Research**

Previous research on the relationship between social responsibility and financial performance are classified into four groups: positive, negative, simultaneous and dead.

The first group of authors has found a positive relationship between CSR and financial performance (eg, Bragdon and Martin 1972, 42-56; Heinz 1976, 48-58, Graves and Vadok 1994, 1034-1046); Pava and Crouch 1996, 321-357; Preston and O'Bannon 1997, 419-429; Stardivan and Ginter 1977, 30-39; Vadok and Graves 1997b, 303-319). The positive relationship supports the theory of social

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influence (Cornell, Shapiro 1987, 5-14). The theory of social influence is based on the view that CSR activities help businesses to create a better image, not only for buyers but also for business partners and potential employees, which further leads to better retention of employees and relationships with the authorities (Moskowitz 1972, 71 -75; Park 1975, 5-12; Solomon and Hansen 1985, 30-39; Coucoura 2004; Turban and Grining 1997, 658-672). The financial ratios used in these studies include the return of capital and various accounting ratios such as return on equity (ROE), return on assets (ROA), return on equity employed (ROCE) and others.

Other groups of researchers have found negative or no relationship between CSR and financial performance. For example, Vance (1975, 18-24), MacKinlay (1997, 13-39), and Wright and Ferris (1997, 77-83) have found a negative impact of CSR on financial performance, supporting the Friedman's "trade-off theory" that companies must use all resources in the core business to increase profitability and that they should not be deterred by anything, including the activities of CSR (Friedman 1970, 13, 32-33, 122, 124, 126). Some researchers (Teoh et al. 1999, 35-89) have also found a link between CSR and financial performance, but argue that when considering the direct connection it seems to be too much factors of crucial importance. Mc Williams and Siegel (McWilliams, Siegel 2000, 603-609) support this view arguing that the positive impact of CSR disappears at the time of development and improvement of the previous model in which the initial results obtained.

Although many researchers focus on the effects of CSR on company performance, some researchers are exploring the simultaneity of the relationship, which Saltzman et al.(2004, 27-36) presented a theory of synergy. There are two claims about the theory of synergy - a positive or negative. The theory of positive synergies based on the positive impact of CSR on performance and vice versa. Other authors include the theory of "managerial opportunism."

Beside these, unconvincing results, the literature related to hotel and catering industry in general, insufficient attention was paid to this issue. This research deficit is worrying, given that many researchers have studied the unique characteristics of different aspects of hospitality (Dalbor, Upneja (2004, 346-355); Kaiser (1998, 115-128), Tang and Yang (2000, 175-187); Winata, Mia (2000, 21-39); Lee and Park (2009, 105-112)).

### **Research Analysis and Results of Social Responsibility in the Hotel Industry on the Example of the Republic of Serbia**

In the catering industry, the impact of CSR on financial performance is poorly empirically studied. Gray et al. (2000, 149-155) give some results. They compared the effect of catering companies and highly market-oriented service companies, through the seven organizational characteristics (overall market

orientation, the dominant elements of corporate culture, the difference in impact on the environment, financial performance, innovation, information technologies, and ethics). It was found that the effect of "ethics" was not different between the two groups of companies. One of the few empirical studies in the hotel industry on this issue is the research of Rodriguez and Cruz (2007, 824-839), who examined the effects of CSR on accounting indicators (ROA) and found a positive impact. However, their data were collected in Spain, which suggests that specific factors of a particular country may be of influence, and thus limit the generalization of findings. More importantly, the data are based on the opinions of company executives, indicating a potentially biased results.

However, the situation is even more drastic in literature in Serbia, since there are no papers on this subject in relation to hospitality industry, and consequently the hotel industry. Given the increasing importance of the role of CSR in today's market, a clearer understanding of the effects of CSR on economic performance in the hotel business is essential.

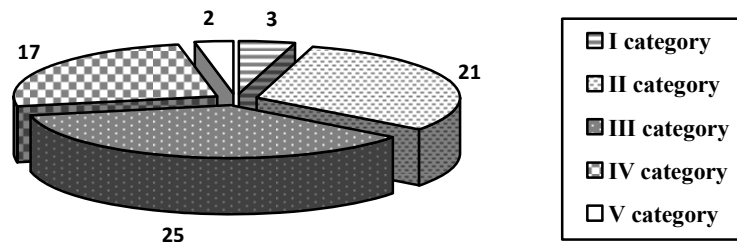
### *Data and sample*

The data used for the analysis came from two sources. I - the first source is a survey that the authors conducted among hotel companies in Serbia. Questions on survey related to social responsibility to the local community, employees and business partners (suppliers, staff) - so to say, the social component of social responsibility. The questions were answered by executives of strategic or operational level of responsibility (directors of hotel companies, managers of individual hotels located within the enterprise, CIOs, directors of public relations, etc.), as well as other employed at lower positions. Each answer was scored. We used the Likert scale of 1 to 5, based on points received an average rating of social part of the social responsibilities of each of the study of hotel companies. Due to limited space, a complete list of questions is available from authors, II - second data source is the Register of Companies Agency of the Serbian Business Registers (APR) from where, because of the objectivity, official economic indicators of each hotel company are taken from.

The original plan of the research was to include the complete basic set of officially classified hotel objects in Serbia that were on the official list of the Ministry of Economy and Regional development of the Republic of Serbia for May 2010 (the total of 213 hotels). All the hotels were contacted in person, by phone or e-mail, but only 109 hotel objects decided to participate, which makes 51,17% of the total set. Research was conducted in the period 01 June – 31 December 2010.

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Chart 1: Number of hotels in sample by categories



Total of 67 facilities (61.47% of the hotels who have accepted the study) had the financial statements for 2010. in the APR. Each of the hotel belonged to companies whose main business is hospitality. Another condition was that the company was profitable in 2010. This condition is fulfilled by of them 37 (33.94%).

### *Model*

After checking that the variables are eligible for the analysis of linear regression, we tested the model to find possible collinearity. Structural form model is as follows:

$$\text{SocioCSR}_{2010} = \beta_0 + \beta_1 \text{ROA}_{2009} + \beta_2 \text{CAT} + \beta_3 \text{NOE} + \beta_4 \text{TYPE} + \beta_5 \text{NOB}$$

### *Variables*

Main variable, in this case, the dependent variable, the **SocioCSR<sub>2010</sub>**, measured for each object separately (by questionnaire which measures the relevant indicators of social responsibility by the standards of ISO 26000). This research, in addition to SocioCSR<sub>2010</sub> has included several more variables, which can be classified into two groups - economic (economic indicators) and noneconomic (catering indicators).

In the first group is classified **ROA<sub>2009</sub>** - return on assets (return on assets) for 2009. and is calculated as the ratio of net income and total assets. In addition to these variables, the original version of the model was present and variables (indicators) the absolute amount of profit, profit changes, operating income, ROE (return on equity - return on equity), but as they behaved neutrally, ie. had no effect on the level of corporate social responsibility, were ejected in the final version of the model.

Non-economic variable, which were available, and that could have flow on the social aspect of social responsibility are: **CAT** - the official categories of hotels expressed the number of stars (d 1 to 5), **NOE** - the number of full-time employed,

**TYPE** - type of object may be a business and resort and **NOB** – accomodation capacity expressed as number of beds.

In this way, the social aspect of social responsibility is attributed to several factors - profitability, firm size, as well as the effects of tourist activities.

### Results

Here are the results of the primary, descriptive analysis, and then relationship between SocioCSR<sub>2010</sub> and certain economic and non-economic indicators in the surveyed hotel companies.

#### Descriptive statistics

Table 1 presents descriptive statistics on the variables. Minimum and maximum values that the dependent variable SocioCSR<sub>2010</sub> could have been in the range 1-5, with an average score of 2.87.

**Table 1: Descriptive statistics**

| Variables                | Variables                | Variables                | Variables                |
|--------------------------|--------------------------|--------------------------|--------------------------|
| SocioCSR <sub>2010</sub> | SocioCSR <sub>2010</sub> | SocioCSR <sub>2010</sub> | SocioCSR <sub>2010</sub> |
| ROA <sub>2009</sub>      | ROA <sub>2009</sub>      | ROA <sub>2009</sub>      | ROA <sub>2009</sub>      |
| CAT                      | CAT                      | CAT                      | CAT                      |
| NOE                      | NOE                      | NOE                      | NOE                      |
| TYPE                     | TYPE                     | TYPE                     | TYPE                     |
| NOB                      | NOB                      | NOB                      | NOB                      |

The average hotel in Serbia, according to the observed sample, have three stars (third category), with 44.04 employees, the business type and has an average of 135.21 beds.

Return on assets (ROA) for companies that have positive operating in 2010. has a mean value of 0.0186.

#### Linear Regression

The model was tested through SPSS 17.0 software package. The results show that the value of the significance is sig. = 0.008. This shows that, at the risk of error is less than 1% level, that social components of CSR are in a statistically dependent relation on the observed predictors (independent variables) - ROA, star hotels, the number of employees, type of facility and number of beds.

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**Table 2.**

| Model | R                 | R <sup>2</sup> | Adjusted R <sup>2</sup> | Change Statistics     |          |     |     |               |
|-------|-------------------|----------------|-------------------------|-----------------------|----------|-----|-----|---------------|
|       |                   |                |                         | R <sup>2</sup> Change | F Change | df1 | df2 | Sig. F Change |
|       | ,472 <sup>a</sup> | ,223           | ,159                    | ,223                  | 3,502    | 5   | 61  | ,008          |

Because the coefficient of determination  $R^2 = 0.252$ , a total of 25.2% of the links between the variables is explained by this model, and the rest are some other influences.

Coefficient of linear correlation between the observed dependent variable (SocioCSR) and the predictors is  $R = 0.502$  and shows that the dependent variable and independent variables are not only dependent on the statistics, but the intensity of this relationship is significant.

Table 3 presents the analysis altogether. Coefficients (standardized regression coefficients) were created by transformation of independent variables in standardized form to be easily comparable, since such a common unit of measurement.

**Table 3: Summary Table**

| <b>SocioCSR<sub>2010</sub> = <math>\beta_0</math> + <math>\beta_1</math>ROA<sub>2009</sub> + <math>\beta_2</math>CAT + <math>\beta_3</math>NOE + <math>\beta_4</math>TYPE + <math>\beta_5</math>NOB</b> |                              |                 |
|---|------------------------------|-----------------|
| Variables   | Standardizovani koeficijenti | Signifikantnost |
| ROA <sub>2009</sub>   | - 0,229                      | 0,049           |
| KAT   | 0,430                        | 0,001           |
| BRZ   | -0,287                       | 0,041           |
| TIP   | 0,193                        | 0,110           |
| BRL   | 0,188                        | 0,159           |

In the presented model, the independent variable ROA<sub>2009</sub> statistically related to the dependent variable SocioDOP<sub>2010</sub> at significance level of 0.049. On this basis, the risk of error is less than 5%, we can conclude that within the model there is a statistical correlation between the return on assets from previous year (2009.) level and social components of CSR in the current year (2010). The value of regression coefficient in reporting model for variable ROA<sub>2009</sub> is -0.229 and indicates that the strength of weak ties, but that the direction is negative.

Theoretically, this means that any investment in the social aspect of the hotel social responsibility in order to raise its value by 1 led to a reduction in return on assets of 0.229 times (the other conditions unchanged). So, looking at the whole of Serbia, there is no evidence that the hotel companies that have invested in the previous year level of funding to improve the social aspect of social responsibility, such funds and returned to the higher profitability, but rather the opposite.

### Conclusion

The purpose of this paper is to study the relationship between corporate social responsibility (through the social component of social responsibility), and financial management in the hotel industry in Serbia. Due to limited access to financial data, this study covers only the detection of possible links CSR and financial performance of domestic catering companies. To obtain results, the data have undergone a linear regression analysis.

In general, the findings show a statistically significant correlation between CSR and the observed economic indicator (return on assets) in enterprises that have positive operating in 2009. In the regression model, we also included other influences, typical for hotel industry as an activity. Significant relationship with the social component of social responsibility has been found for return on assets, hotel categories and the number of employees, which could be expected. The link of the social components level of CSR and return on assets was negative, meaning that the higher level of social responsibility in the realm of social issues, the weaker the results of profitability of hotels.

Looking at the figures, these results are not surprising, but should be taken with caution because of two limitations. The first is a small sample of hotels that meet the condition of positive operating results in recent years. The economic crisis has affected the hotel activities. Another limitation is the official statistics, which in a significant number of cases does not correspond to the actual state of affairs. Managers of hotels, due to different objectives, often report lower or higher occupancy rate than achieved. The authors point to this fact that could, to some extent, relativize the results of this study. Also, some of the answers of research into the level social responsibility could be given only by the managers of facilities and to underline the potential bias. Therefore, average grade social components of CSR of 2.87 on a scale of 1 to 5 may not be entirely objective.

During the study, the authors were convinced that the company executives mostly are not even aware of the importance of corporate social responsibility. This is also supported by lack of awareness of consumers about social responsibility. The offer in Serbia must be adapted to the requirements of demand. Although this paper does not survey consumers, it is clear that the average hotel guest in Serbia must be educated, to become more aware of social responsibility and business, and therefore competition will make their offer.

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Social responsibility is not recognized as a competitive advantage in the market in Serbia, either by demand or supply. This is exactly the main reason why the investment in social responsibility (currently) hoteliers does not pay off.

The door remains open for future research to process the issue of relations between social responsibility and financial performance in Serbian hotel through multi-year periods, and hence make conclusions about it. Also, the future research on corporate social responsibility could also introduce environmental component in order to study the effects of the financial results of hotels.

However, the answer to the question from title is - at this point, not yet!



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### **DA LI SU FINANSIJSKI USPEŠNA PREDUZEĆA U SRPSKOM HOTELIJERSTVU I DRUŠTVENO ODGOVORNA?**

**Rezime:** Društvena odgovornost u ugostiteljstvu, samim tim i hotelijerstvu, aktivnost je koja nije dovoljno zastupljena u Republici Srbiji. U svetu se velika pažnja poklanja ovoj problematici, dok u našoj zemlji ona "čini svoje prve korake". Kako veliki globalni hotelijerski lanci, tako i mali nezavisni hoteli, prepoznali su važnost sprovođenja društveno odgovornog poslovanja, ne samo zbog (diskutabilnog) dobročinstva, već pre svega zbog finansijskih i drugih dobiti koje im ona donosi. Ovaj rad pokušava da da odgovor na pitanje da li je takva situacija odgovara stanju stvari u Srbiji, tj. da li hotelska preduzeća koja imaju bolje finansijske rezultate više pažnje poklanjaju društveno odgovornom poslovanju. Ovom prilikom nivo društvene odgovornosti je meren kroz socijalnu komponentu, dakle kroz odnos preduzeća sa lokalnom zajednicom, zaposlenima, dobavljačima, vladinim i nevladinim organizacijama. Cilj rada je, pored odgovora na pitanje iz naslova, da se ukaže na mogućnosti unapređenja društveno odgovornog poslovanja u domaćem hotelijerstvu.

**Ključne reči:** društvena odgovornost, socijalna komponenta društvene odgovornosti, ugostiteljstvo, hotelijerstvo, finansijski rezultati.





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## THE STATE AND PROSPECTIVE DEVELOPMENT OF TOURISM ON THE TERRITORY OF THE MOUNTAIN STARA PLANINA

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**Abstract:** *Social and economic circumstances have long negatively influenced the development of tourism in Serbia. Stara planina as a tourist destination shares the destiny of the overall Serbian economy and tourism. However, during the last years, the awareness has been raised that tourism as an activity can trigger the development of a range of other economic activities. The authors of this paper deal with analysis and evaluation of the natural and created values that can be found on the territory of Stara planina. They point not only to its advantages and possibilities with the aim to develop tourism, but also to its flaws, shortcomings and weaknesses that this area has to remove so as to enable tourism to develop in an adequate way.*

**Keywords:** *tourism, types of tourism, development.*

### 1. Introduction

Tourism in Serbia has a very long and rich tradition. That is the consequence of its favourable geographic position, good transport routes, as well as richness of natural and anthropogenic values. As a continental country, Serbia based its tourism development on mountains and spas as well as some important residential areas, which can offer tourists something that might interest them. In that context, tourism strikes us as a significant activity with its unexploited potential. Tourism potentials in Serbia are not sufficiently valorised because tourism has not occupied a significant place in the developmental policy. The factors that have represented an obstacle to the intensive development of tourism

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on Serbian mountains are inadequate transport connections, villagers moving out and insufficient investment or even lack of investment in tourist offer.

During the last years, special attention has been paid to the development of tourism on Stara planina. Stara planina possesses natural and anthropogenic tourist values. Natural tourist values are the properties of relief, climate characteristics, hydrographic objects, geological structures as well as flora and fauna. The mountain is situated in the eastern part of Serbia. Natural characteristics can significantly contribute to the development of tourism on it. There are also many other segments which could be vital for tourism. For that reason, this analysis should also point to the need to preserve and advance natural and living environment as well as to the possibility to develop tourism on Stara planina.

## **2. Swot Analysis of Stara planina as a Tourist Destination**

SWOT analysis is used as an indicator in a tourist destination that wants to learn about its weak and strong points. The tourism development strategy of Stara planina should provide a clear evaluation of the possibilities to include this area in domestic and foreign market. SWOT analysis represents an important means for identifying and systematising a possible choice of key strategies and policies with intention to realise the set goals.

In order to get an insight into the existing state and possibilities of tourism development on Stara planina, three criteria will be taken into consideration:

1. natural conditions,
2. general infrastructure and tourist offer,
3. population and human resources

### ***2.1. Natural Conditions***

Tourist development of every mountain is determined by its natural conditions. In that sense, natural conditions relate to a geographic position, geomorphologic, climatic and hydrographic values as well as richness in flora and fauna.

The territory of Stara planina is an area in the further east part of Serbia, at the border with Bulgaria. From Vrška čuka towards southeast to Srebrna glava (1 933) at which point it separates itself from the state border. In physical sense, the observed territory is situated in northwest – southeast as a mountain range of Stara planina and the surrounding area at its foot. Stara planina mountain range stretches in the form of a belt of 100 km in length and about 30 km in width.

Geographical position of Stara planina is shown by its relation to near and far surrounding area. Stara planina is situated between 43°06` and 43°53` north

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latitude. According to the longitude, it is situated between 22°18' and 23° of east longitude (Rodić, Pavlović 1994, 11). The observed territory represents an integral part of the mountain-basin-valley macroregion, and mesoregion of East Serbia (Pavlović, Marković 2005, 96).

This mountain represents a part of the vast mountain range named Carpathian-Balkan arc. It covers the overall area of 123.460 ha. As a morphological entity, it is surrounded by the valleys of Beli Timok, Trgoviški Timok and Visočica, whereas in the east it is surrounded by the state border between Serbia and Bulgaria. In the meridian direction, it stretches for nearly 100 miles, while in the comparative direction its maximum length is about 30 km (Pirót basin – Srebrna glava). The largest part of the studied territory is situated in the hypsometric belt of 200-2.000 m, that is to say, up to 2.169 m (Dakić 1967, 7).

The advantages of geographic position of Stara planina are seen not only in its territorial diversity, but in its favourable connection with important valleys, first of all, the connection with Morava valley, the most important course of direction for tourist flow in our country, Timok valley, the most important direction of east Serbian tourist flow.

Apart from Niš, other greater urban-industrial centres of Serbia and the surrounding area could also become potential dispersive centres leading to Stara planina. In the first zone with the road distance of 100 km, there are: Leskovac (78.030), Zaječar (40.000), Bor (41.000), Jagodina (50.000). The second dispersive zone with the road distance of 200 km is comprised of: Požarevac (41.736), Smederevo (77.808),....[10]. The third dispersive zone includes urban-industrial centres with the road distance 200-500 km: Belgrade (1.576.124), Novi Sad (330.460), Sombor (51.471), Subotica (99.471).

The relief of Stara planina is extremely complex and it indicates that endogenous and exogenous forces generated various morphological processes, first of all, fluvial and limestone erosion as well as tectonic processes, abrasion and accumulation which are of less importance. These forms, primarily fluvial and limestone ones, led to the formation of genetically various relief characteristics, morphographically significant and morphometrically representative ones, and thus created unique richness of territorial diversity. All stratigraphic experts of Paleozoic, Mesozoic and Cenozoic era as well as their smaller stratigraphic teams participate in it.

The main characteristics of Stara planina relief are morphological integrity of the major mountain range, high vertical linear arcs and slopes. The relief is mostly of tectonic origin, generated in the process of moving and positioning geological rock complexes. Tectonic relief passed through geological time and shaped itself with intensive erosive processes, from tectonic, through abrasive,

fluvial to limestone. It is considered to have glacial form of relief but has not been adequately studied.

The climate in the area of Stara planina has its advantages for tourism development. Relief has the biggest influence on the climatic shaping of the area of Stara planina. Its influence (through the change of altitude, exposition and sloping of the terrain, position in relation to air masses etc) is most clearly manifested in intensive quantitative changes of air temperature and precipitation.

**Air temperature:** To examine the air temperature, data from the surrounding stations were used (Dimitrovgrad, Pirot, Knjaževac, Zaječar, Negotin and Topli do). Based on the data we used, we can conclude that January is the coldest at all the observed stations. The temperature ranges from  $-0,5^{\circ}\text{C}$  in Pirot to  $-1,8^{\circ}\text{C}$  in Topli do. The warmest month is July (the temperature ranges from  $17,5^{\circ}\text{C}$  to  $22,4^{\circ}\text{C}$  in Negotin). The first frost with absolute minimal air temperature occurs in the second half of September, and the last in the first half of May. Anyway, due to irregular measurements in the 6 stations, which we listed at the beginning, in the period from 1991 to 2000, we have not been able to state absolute maximum and minimum air temperature in greater details.

**Precipitation:** In the area of Stara planina there is a continental regime of precipitation which shows that the amount of precipitation is less in winter than in summer period.

The greater the altitude, the greater amount of precipitation, but the question arises: at what altitude is the greatest amount of precipitation, i.e. at what altitude is the condensation level on Stara planina the greatest.

Since there are no precipitation stations on the higher levels of the territory of Stara planina, this question has to remain open. In order to deal with this shortcoming, it is necessary to establish an evenly distributed network of stations in that area. From the point of view of tourism, recreation and sport, the most important climate value is the amount, duration and quality of snow. Based on the data obtained from the Meteorological Institute in Belgrade, snowy period lasts from the beginning of November (Topli do) until the second decade of April (Topli do), that is to say the other decade of March (Negotin). Apart from the snow cover, winds (košava and etesia) also play an important part, while other climate factors like temperature, sunrays, humidity, cloudiness, rain are within normal boundaries for a mountain area. With the decrease in temperature and increase in precipitation alongside with the rise of altitude, the number of days with snow cover rises as well. According to Dukić at the altitude of 1000 m on Stara planina there are 100-110 days with snow cover, whereas on Midžor, snow lasts for the whole six months. Dukić also states that in the wider area of Babin zub, at the altitude of 1000 to 1400 m the duration of the quality snow cover that can be used for winter sports is three months, at 1400 -1700 m four months and at altitude of over 1700 m, the duration of the snow cover is 5 months (Regional Environment Center 2007, 56).

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**Table 1: Natural Conditions**

| <i>No</i> | <i>Advantages</i>                                    |
|-----------|--|
| 1.        | Relatively favourable geographical position          |
| 2.        | Favourable climatic conditions                       |
| 3.        | Diversity of flora and fauna                         |
| 4.        | Richness in water potential                          |
| 6.        | Well-distributed relief                              |
| 7.        | Stara planina – one of the Parks of nature in Serbia |

| <i>No</i> | <i>Disadvantages</i>                       |
|-----------|--|
| 1.        | Certain unprotected parts of Stara planina |
| 2.        | Neglected autochthon vegetation            |

| <i>No</i> | <i>Opportunity</i>  |
|-----------|---|
| 1.        | Awareness of the environment will continue to grow and lead to an increased demand for sustainable tourist destinations |
| 2.        | Development of specific types of tourism based on natural resources (hunting, wellness tourism)                         |
| 3.        | Greater utilisation of water potential  |
| 4.        | Complementary development of spa and mountain tourism   |
| 5.        | Development of other activities based on natural resources  |

| <i>No</i> | <i>Dangers</i>  |
|-----------|---|
| 1.        | Non-application of law and measures with the aim to protect the environment |

Summing up certain climate values of the territory of Stara planina, we can see that this area represents a transfer zone between moderate-continental climate of Timočka krajina (limestone area) and Vlačka nizija (lowland) in the north and mountain climate of Balkan mountain system in the south-east (Regional Environmental Center 2007, 14) This mountain is very complex and diverse in terms of climate.



Hydrographic facilities in the mountains most often represent complementary tourist values. We can differentiate two hydrographic entities on the territory of Stara planina:

- The terrain with surface water flow. This terrain does not represent uniqueness in its vastness. It is divided into smaller parts by the valley of Visočica and the valley of its side confluent and each of these parts has its own limestone hydrographic system. One of those parts is comprised of: **subterrane** (north-east of the village Brlog and Dojkinac – closed depression), **Vrtibog depression** (north of the village Gostuše, on the surface of the rivers Dojkinac and Jovanovac), **subterrane** (situated on the territory where the rivers Dojkinac and Jelovac separate). There are two short subterranean rivers in it, one of which loses water in subterranean cave. There are numerous rivers, the most important of which are Visočica, klisura Vladikine ploče (ravine of Vladika plate), Toplodolska, Jelevička, Dojkinačka. There is the lake Zavojsko jezero and spas like Rgoška and Nikoličevksa banja and the like...)
- Terrain with limestone hydrography, i.e. without surface flow (springs: Jelovičko vrelo, Okapsko vrelo, Vrelo na Bati, Dojkinačko vrelo) (Vidanović 1995, 17).

In case of tourist-recreational and medical function of the area of Stara planina, fauna is of crucial importance. Vegetation in the area of Stara planina is characterised by the diversity of forest, bush, meadow, grassland and peat bog communities. The most present are: subalpine bush vegetation, blueberry and subalpine spruce. This mountain has a very well vertical zonation. Vertical diverse distribution of vegetation is characterised by the thermophile, forest vegetation which is widely spread at high altitude (Ivančević et al. 2007, 1-43).

Attention of the tourists of Stara planina is attracted by relic, endemic and rare types. We differentiate the following:

- Seven endemic and one subendemic type;
- Relic types of plants which point to the old origin of flora and vegetation. They are witnesses of flora as it was in the past. A large number of relic types indicates that the flora in this area has significantly less changed than in other parts of Europe. On Stara planina, eighteen types of plants grow which are under the regime of protection (Mišić et al. 1978, 55–53).

Based on the stated we can conclude that the observed area is rich in hydrographic and biogeographic values that can contribute to the development of specific types of tourism.

## ***2.2. General Infrastructure and Tourist Offer***

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According to the degree of urban architecture, Stara planina belongs to a group of poorly developed areas. The only part of this area that was replenished in 2007 owing to the measures of the Republic of Serbia government is an area around the top Babin zub.

**Table 2: General Infrastructure and Tourist Offer**

| <i>No</i> | <i>Advantages</i>                |
|-----------|----------------------------------|
| 1.        | Refurbished hotel Babin Zub      |
| 2.        | Built cable-cars on Konjarnik    |
| 3.        | Rural households                 |
| 4.        | Preserved traditions and customs |

| <i>No</i> | <i>Disadvantages</i>   |
|-----------|--|
| 1.        | Lack of accommodation with high-quality service                        |
| 2.        | Insufficient number of tourist happenings                              |
| 3.        | Lack of resources  |
| 4.        | Communal infrastructure  |
| 5.        | Lack of tourist signalisation  |
| 6.        | Insufficiently developed traffic infrastructure (main and local roads) |

| <i>No</i> | <i>Opportunity</i>  |
|-----------|---|
| 1.        | Inciting further development of tourism by the state  |
| 2.        | Improving ski-passes and modern cable-cars  |
| 3.        | Creating paths for extreme sports and programmes for sports trainings                         |
| 4.        | Increasing the quantity and quality of accommodation  |
| 5.        | Developing specific types of tourism (congress, manifestation, excursion, rural tourism etc.) |
| 6.        | Building the highway Niš-Dimitrovgrad   |
| 7.        | Application of information-communication technologies in tourist business                     |

| <i>No</i> | <i>Dangers</i>                                     |
|-----------|--|
| 1.        | Political instability in the country and region    |
| 2.        | Competition in domestic and foreign tourist market |

|    |   |
|----|---|
| 3. | Lack of standard on the quality of service              |
| 4. | Low level of the standard of living of Serbian citizens |
| 5. | World economic crisis                                   |

Traffic network on the territory of Stara planina points to the fact that this category also does not satisfy the needs of not only tourists but the inhabitants as well. Road communications fails to meet the needs of the present day neither with its capacity nor with its quality. Similar situation is seen in local roads of Stara planina which are important for internal traffic on one side but which, on the other side, do not offer the possibility to tourists to visit some attractive localities alongside the major roads.

The analysis of accommodation points to the fact that present state satisfies the needs and amount of present day tourist flow. The priorities in this area are as follows:

- a) refurbishing the existing accommodation (Hotel Babin zub, Mountain home Babin zub, Resort Vrelo and the like) and improving its furnishings,
- b) building new and modernized accommodation facilities, primarily the facilities which would be economically justified and competitive on the market,
- c) building accommodation capacities and accompanying infra and suprastructure in the surrounding places which would include the whole area of Stara planina directly into the tourist offer.

### 2.3. Population and Human Resources

Due to its peripheral geographical position and complex historical circumstances, the area of Stara planina represents a significantly depopulated region.

**Table 3: Population and Human Resources**

| <i>No</i> | <i>Advantages</i>  |
|-----------|--|
| 1.        | Positive attitude of Stara Planina inhabitants to tourism development        |
| <i>No</i> | <i>Disadvantages</i>   |
| 1.        | Unfavourable age structure of the population                                 |
| 2.        | Outflow of inhabitants from the surrounding inhabited areas of Stara planina |
| 3.        | Lack of tourist tradition hinders the process of defining tourist offers     |
| <i>No</i> | <i>Opportunity</i>   |

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|           |   |
|-----------|---|
| 1.        | Long tradition of educating people working in tourism   |
| 2.        | Development of thematic-educational and business programmes in the form of congresses, seminars, manifestations |
| 3.        | Non-government organisation investment in educating inhabitants and promoting in the area of ethno tourism      |
| <b>No</b> | <b>Dangers</b>  |
| 1.        | Slow increase in productivity because of the legacy of the past   |
| 2.        | Lack of personnel for new professions   |
| 3.        | Insufficient professionalism of personnel   |

The observed region encompasses 50 settlements on the territory of four municipalities in three areas: Zaglavak (in the north), Visok (in the central area) and Vidlič (in the south). The greatest decrease of the number of inhabitants in the period between 1948-2002 was marked in the following settlements: Repušnica, Tatrarnica, Velika Lukanja and Gabrovnica.

The greatest reduction of the number of inhabitants in the area of Stara planina is characteristic for the inter-census period 1971-1981. Many factors have incited migration of the population which brought about almost total evacuation of this area today. Apart from the consistent outflow of inhabitants, and so far minor returning migration connected to older people who return to their birthplace after retiring.

### 3. The Existing and Possible Types of Tourism

Based on the potential that it possesses, the area of Stara planina has possibilities for the development of different types of tourism. We primarily have in mind its morphological diversity, richness of river flows, favourable altitude, favourable climate as well as biogeographical values, which possess excellent aesthetic motives. Apart from natural, we should also mention the diversity of anthropogenic tourist values (old churches, making quilts, belmuž (type of dish), old cutlery at households and others). Based on the stated, it can be concluded that Stara planina has potential possibilities for developing different types of tourism, such as the following:

- Types of tourism with short stays,
- Types of tourism with stationary stay.

### ***3.1. Types of Tourism with Short Stays***

The types of tourism with short stays in tourist places or localities on Stara planina are as follows: field trip, excursion, manifestation and hunting tourism.

#### ***3.1.1. Field Trip and Excursion Tourism***

Field trip and excursion tourism represent pre-planned and organised movements and they are considered to be the most complex category of tourist flow (Čomić, Pjevač 1997, 195).

This form of tourist movement is especially developed on the area of Stara planina primarily in the form of school excursions and their single day field trips. It is characteristic in the period of holidays when people from the city areas come to mountains to rest and recreate. The greatest interest is in Babin zub as a winter tourist centre on Stara planina, which offers the best conditions for relaxation, recreation and accommodation.

The development of field trip and excursion tourism as well as tourist flow depends on the economic development of Stara planina, standard of living and level of urbanisation. During the last five years, there has been an increase in the number of picnickers whereas in the past, this mountain was not attractive to visitors due to insufficient investment. It is believed that this form of tourism will become stronger in the future on the area of Stara planina and that it will continue to develop. It is considered that field trip and excursion tourism in this area will expand and be massively used especially by the young population.

One of the advantages of the area of Stara planina for the development of field trip tourism is relative vicinity of a part of the main route passing through our country (corridor 10). Quality connection of field trip localities with emissive centres and main roads would enable passers-by to stay for a shorter period and citizens of neighbouring industrial centres to stay for a weekend or have single day field trips.

Interconnection of all the localities would ensure excursion visits of many hours. Field trips to springs, memorial fountains, glades, protected forest complexes, churches and monasteries which are numerous on this mountain, could make the offer of stationary tourism complete.

#### ***3.1.2. Manifestation Tourism***

Manifestation tourism is held at certain part of the year and is connected to manifestations. The observed form of tourism is attractive to tourists from different parts. The advantage of this form of tourism is that it uses the most various ambient, natural, rural environment as well as rural households and not hotel accommodation.

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Manifestation tourism was the most present during the 1980s of the last century when this area was visited not only by tourists from our country but by foreign tourists as well. This form of tourism was least practiced during the economic crises when this trend had minimal results. In the period from 2000, manifestation tourism comes to life again.

The most significant manifestations are held in May and August. In May, „Molitva pod Midžorom“ (Prayer under Midzor) is held, and in August „Sabor na Panadžuru“ (Fair at Panadzur). The manifestations are held with a range of celebrations and other happenings.

This form of tourist offer can attract a greater number of visitors and present them with the specific characteristics of this area since personal experience is irreplaceable. As has been said, tourist manifestation is a form of presentation of a certain tourist destination as well as a form of propaganda.

On the territory of Stara planina, manifestations can contribute and generate greater tourist flow with their diversity and organisation. That would enable the familiarisation with the overall area of this mountain. Thus, propaganda would be improved and tourists would become more interested in both short and long stays on Stara planina.

With the aim to develop manifestation tourism, cooperation between organisations on Stara planina and other tourist organisations or agencies is necessary. Manifestations must offer activities that are in accordance with the contemporary interests (ethnological motives of saint's day, celebration of church name, prayer etc).

#### *3.1.3. Hunting Tourism*

The basic characteristic of hunting tourism is seen in the motive and complementarity of this activity (Čomić, Pjevač 1997, 195). The motive of hunting tourism is hunting, i.e. shooting wild animals. Since wild animals are the major resource for the development of hunting tourism, it is necessary to pay special attention to its preservation. For the development of this form of tourism, apart from hunting animals which represent the basic resource, it is necessary to ensure specific material factors (building ambushes in hunting areas, establishing guiding service, organizing transport and accommodation for potential tourists and other).

According to its affinities, hunting tourism represents a special type of demand especially in the foreign tourist market. Participants are mostly tourists of greater paying abilities so that the development of hunting tourism can significantly influence tourism revenue.

Hunting has a significant role in motivating tourists – hunters. They demand a high quality of accommodation, organization of hunting, specialised

guides and other. With the aim to satisfy the needs of hunters from other countries, it is necessary to engage renowned tourist agencies which are almost non-existent in this area.

### ***3.2. Stationary Type of Tourism on the Territory of Stara planina***

Stationary tourism is not on a desirable level. Regardless of the natural values possessed by Stara planina and all the advantages, there have not been enough investments in it and consequently the tourist flow has been extremely low.

It is only in the recent years that the rate of tourist flow has increased within the stationary tourism. Although this type of tourism is still of moderate dimensions, it has favourable conditions for the development of: mountain, winter and summer sports-recreational tourism, rural and medical-healing tourism.

#### ***3.2.1. Mountain Tourism***

For this form of tourism, the area of Stara planina offers various possibilities. In the first place, it offers the possibility to build alp ski and nordic terrains of the highest category (especially in the area of Babin zub). Its clear mountain rivers enable the development of certain forms of water sports (rowing sports, fishing etc). Forests rich in large and small fauna, mountain rivers and lakes with sublime types of fish are convenient for the development of sports hunting and fishing.

Mountain tourism on Stara planina has been modest so far due to weak tourist offer. Its advantage is the vicinity of emission centres as well as favourable relation to important tourism flows.

General disorder of the mountain area, lack of quality traffic routs and other elements of tourist infra and suprastructure represent obstacles in the development of tourism on Stara planina. Nevertheless, regardless of the stated flaws, this area is beginning to develop slowly and to enable a better tourist offer because this mountain has the advantages as well, such as: preserved natural environment, healthy food, favourable ski terrains, winter-sports activities on Babin zub and the like. With these advantages and investments in the general infrastructure and tourist offer, tourist flow can be expected to rise during summer and winter season.

Although we are already familiar with this, it should be mentioned that a special place on Stara planina is occupied by Babin zub which has a great advantage in the development of winter sports. It will ensure a greater number of tourists on this mountain, especially during winter.

We certainly must not neglect summer tourism in this area which would attract a greater number of tourists with this area being built and improved. The main features which attract tourists to Stara planina in the summer period can be

### **The State and Prospective Development of Tourism on the Territory of the Mountain Stara Planina**

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mountain rivers (Visočica, Dojkinačka reka, Toplodolska reka, Temštica etc), hunting area (on Stara planina and Vidlič), cultural goods etc.

Based on the research of Stara planina, the scope and dynamics of building infrastructure should be considered more closely, offer should be expanded and thus ensure the inflow of tourists. (IAUS 1934, 54)

#### *3.2.2. Sports – Recreational Tourism*

Based on the natural factors, it can be concluded that Stara planina has favourable conditions for the development of sports-recreational tourism. In its area, the part around the top Babin zub is especially noticeable, which offers the greatest possibilities for the development of sports and recreation. Apart from sports and recreation in this area, many other forms of tourism can be experienced.

Until now, tourism on this mountain has had a significantly seasonal character. The area of Stara planina with its conditions for relaxation, recreation and sport is favourable for the development of tourism with a longer stay in winter and summer season.

Low temperatures and long-lasting snow cover offer possibilities for winter sports activities (skiing, sledging and recreation in snow) which are primarily connected to longer stays in ski centres. Optimal number of stationary skiers (accommodated in tourist resorts on the mountain) was calculated based on the minimal capacity of skiers at one point. The structure of minimal number of skiers at one point is calculated with 60% of stationary skiers in the area of nature park and with 40% of daily picnickers from the surrounding. The structure of optimal accommodation capacities is calculated by 60% of skiers (stationary) and 40% of nordic skiers and non-skiers, so that the number of lodgings is equal to optimal capacity of alp skiers at one point, i.e. 36.700 (Jović, Popović 2008, 54).

This number of lodgings should be distributed on new locations below the starting point of alp skiers and in municipal centres Pirot and Knjaževac as well as in inhabited areas at the foot of the mountain. There are mostly commercial tourist capacities in the new localities and municipal centres (Jović, Popović 2008, 53).

Terrain configuration and natural values of this area enable relaxation in a quiet and beautiful ambient during the summer (green areas, mountain springs, clean air, altitude, climate...). During July and August, there is also the swimming season at lake Zavojsko jezero.

#### *3.2.3. Medical – Healing Tourism*

The influence of altitude, clean and fresh mountain air, healthy and drinkable cold water, abundance in greenery, quietness and preserved natural environment on Stara planina are all extremely favourable for tired people with



minor illnesses (whose activities will not be much different from the activities of other users of this area), as well as sports people for preparation, strengthening body, improving condition and fitness.

As on other mountains, here as well people can improve their blood results, normalize blood pressure. Furthermore, natural ambient has a positive influence on nerves.

Since many destinations generate substantial revenue owing to this type of tourism, it is necessary to pay special attention to its development on the territory of Stara planina.

#### *3.2.4. Rural Tourism*

According to WTO, the concept of rural tourism is based on the rich natural resources, rural heritage, rural way of life and rural activities. The development of rural tourism, on one side, can influence the increase of economic effects in tourism, but, on the other side, it can prevent the outflow of inhabitants from the villages (village senilization) which the area of Stara planina is famous for (Ahmetović 1996, 86).

In the correlation with mountain and sports-recreation tourism, rural tourism on the territory of Stara planina has exquisite advantages for forming special tourist offer. Healthy ecological food, unpolluted environment, pure drinking water are the basic values of rural area of Stara planina. That relates primarily to the rural area at the foot of Stara planina (from 600 to 800 meters of altitude).

The development of rural tourism on the area of Stara planina is at its beginning but could become an important factor in increasing inhabitants wellbeing in the future. Through this activity, greater revenue of rural inhabitants would be generated, village infrastructure improved, agricultural production enhanced. Through tourist offer, village households would increase their revenue which would altogether influence a faster development of tourism.

In order to enable faster development of rural tourism on the territory of Stara planina, it is necessary to regard it as an inseparable part of further development of mountain tourism on Stara planina, since in correlation with mountain and sports-recreation tourism this would make the offer of this area complete.

### **Conclusion**

Having in mind the existing state as well as the perspective of tourism development on Stara planina, we implemented the SWOT analysis. Within the observed analysis we based our work on three criteria: 1) natural conditions; 2) general infrastructure and tourist offer; 3) population and human resources.

### **The State and Prospective Development of Tourism on the Territory of the Mountain Stara Planina**

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Based on the analysis of natural conditions, we can draw a conclusion that Stara planina has a relatively favourable geographic position, rich offer of hydrographic and biogeographic values which represent a good ground for the development of tourism during summer, good climate which enables the development of winter sports. These natural values can contribute to the development of other specific types of tourism as well.

By analyzing accommodation capacities, we have concluded that this category of material factors should be given special attention so as to drastically improve the tourist offer and make it more tempting for both domestic and foreign tourists. With the aim to develop tourism, it is necessary to invest in building new and improving the existing general infrastructure, accommodation and catering facilities.

During the examination of the SWOT analysis, special attention was paid to quantitative markings and dynamics of the progression of inhabitants on the territory of Stara planina and it was confirmed that the observed area represents a depopulated region. Tourism in this area could contribute to the prevention of the inhabitants outflow.

Based on the stated natural and anthropogenic values that the territory of Stara planina possesses, we can say that it has certain possibilities for the development of different kinds of tourism. This fact is supported primarily by its morphological diversity, river flow richness, favourable altitude, favourable climate, forests rich in flora with exquisite aesthetic values as well as the diversity of anthropogenic tourist values seen through cultural-historical monuments (old churches, making quilts, making belmuža and other customs, use of original cutlery in households and rural society), customs of local inhabitants and the like.

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**Rezime:** Godine za nama, društvene i privredne okolnosti, negativno su uticale na razvoj turizma u Srbiji. Stara planina, kao turistička destinacija, delila je sudbinu ukupne privrede i turizma Srbije. Međutim, poslednjih godina pojačana je svest da je turizam visokoproduktivna delatnost, koja može podstaći razvoj drugih privrednih delatnosti. U vezi sa tim, na Staroj planini započete su konkretne akcije i ulaganja. Autori u radu analiziraju potencijalne prednosti, slabosti, mogućnosti i opasnosti Stare planine, u cilju razvoja turizma i njegovih vrsta.

**Ključne reči:** turizam, vrste turizma, razvoj

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